

Science: Earth Science / Knowing (S032115 - S01_01)
 Label: Percentage of fresh water on earth
 Type: MC Key: D

COUNTRY	Year	N	DIFF	A	B	C	D	OMIT TED	NOT REACH ED	1.GIRL %Right	2.BOY %Right
Armenia	2003	451	42.9	7.7	15.5	33.9	42.9	0.0	0.0	46.7	39.1
	2007	621	51.4	7.7	5.7	28.2	51.4	6.9	0.1	47.8	54.9
Australia	2003	382	58.1	2.5	6.5	32.9	58.1	0.0	0.0	54.5	61.8
	2007	582	41.9	0.7	6.6	48.6	41.9	1.9	0.3	29.4	53.4
Bahrain	2003	344	29.9	12.4	15.4	42.3	29.9	0.0	0.0	29.9	30.0
	2007	606	29.6	7.1	15.4	46.5	29.6	0.9	0.5	24.1	34.9
Botswana	2003	428	12.4	42.4	22.7	22.6	12.4	0.0	0.0	12.6	12.1
	2007	.	.	.	.	.	.	.	.	.	.
Bulgaria	2003	304	49.1	9.4	9.4	32.2	49.1	0.0	0.0	47.5	50.4
	2007	439	39.1	8.7	12.1	37.0	39.1	3.1	0.0	39.4	38.8
Chinese Taipei	2003	443	55.3	3.0	7.2	34.5	55.3	0.0	0.0	53.3	57.1
	2007	574	60.3	1.4	2.5	35.7	60.3	0.2	0.0	55.2	65.4
Cyprus	2003	335	30.9	3.5	13.2	52.3	30.9	0.0	0.0	24.2	38.2
	2007	625	35.2	5.1	7.3	51.8	35.2	0.6	0.0	31.5	38.7
Egypt	2003	125	37.6	4.2	5.9	52.2	37.6	0.0	0.0	21.9	46.8
	2007	933	40.0	10.3	9.9	38.8	40.0	0.9	0.0	37.1	42.9
England	2003	216	39.7	0.5	8.5	51.2	39.7	0.0	0.0	29.2	52.0
	2007	589	29.7	2.2	8.5	59.2	29.7	0.4	0.0	30.1	29.3
Ghana	2003	.	.	.	.	.	.	.	.	.	.
	2007	.	.	.	.	.	.	.	.	.	.
Hong Kong SAR	2003	412	62.8	1.5	4.7	30.9	62.8	0.0	0.0	59.5	66.2
	2007	501	50.6	2.0	5.5	41.6	50.6	0.3	0.0	42.2	58.9
Hungary	2003	262	67.7	0.7	3.2	28.3	67.7	0.0	0.0	59.6	75.0
	2007	582	61.2	1.0	4.9	32.8	61.2	0.1	0.0	55.3	66.9
Indonesia	2003	453	22.9	11.2	25.7	40.2	22.9	0.0	0.0	20.3	25.5
	2007	606	15.7	13.8	26.6	39.5	15.7	4.1	0.4	13.6	17.7
Iran, Islamic Rep. of	2003	402	41.1	3.1	14.3	41.5	41.1	0.0	0.0	31.4	47.9
	2007	571	39.7	3.2	12.9	43.2	39.7	1.1	0.0	34.5	43.9
Israel	2003	358	59.3	4.7	7.5	28.6	59.3	0.0	0.0	51.1	67.7
	2007	460	55.2	7.9	7.9	27.3	55.2	1.7	0.0	54.2	56.3
Italy	2003	324	60.1	2.6	10.6	26.8	60.1	0.0	0.0	51.9	67.5
	2007	631	57.5	2.8	5.5	32.2	57.5	2.0	0.1	53.0	61.7
Japan	2003	394	49.9	0.8	5.2	44.1	49.9	0.0	0.0	45.1	54.2
	2007	609	42.5	0.7	4.5	51.5	42.5	0.3	0.4	41.8	43.4
Jordan	2003	350	27.5	10.8	14.5	47.1	27.5	0.0	0.0	25.0	30.1
	2007	743	32.5	8.6	13.8	43.3	32.5	1.9	0.0	30.3	34.5
Korea, Rep. of	2003	444	54.5	0.7	4.9	40.0	54.5	0.0	0.0	42.5	65.6
	2007	612	55.6	1.0	5.8	37.5	55.6	0.1	0.0	47.7	62.5
Lebanon	2003	289	24.0	18.0	14.3	43.7	24.0	0.0	0.0	22.5	26.0
	2007	530	19.9	19.9	12.8	44.0	19.9	3.4	0.0	16.7	23.8

DIFF = Percent correct
 Because of missing gender information, some totals may appear inconsistent.

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COUNTRY	Year	N	DIFF	A	B	C	D	OMIT TED	NOT REACH ED	1.GIRL %Right	2.BOY %Right
Lithuania	2003	374	50.9	1.9	6.6	40.6	50.9	0.0	0.0	49.4	52.6
	2007	571	55.1	2.0	5.1	37.0	55.1	0.8	0.0	48.2	61.9
Malaysia	2003	432	48.3	1.6	5.6	44.5	48.3	0.0	0.0	42.6	53.3
	2007	643	35.4	4.2	10.6	47.9	35.4	1.9	0.0	30.9	40.3
Norway	2003	336	66.4	1.0	5.4	27.2	66.4	0.0	0.0	64.6	68.2
	2007	655	65.7	0.7	4.8	27.8	65.7	0.8	0.1	60.4	71.3
Palestinian Nat'l Auth.	2003	437	26.8	12.1	15.6	45.4	26.8	0.0	0.0	24.4	29.7
	2007	624	19.5	15.1	16.8	47.6	19.5	0.9	0.0	17.2	22.0
Romania	2003	331	45.1	5.4	10.6	38.9	45.1	0.0	0.0	41.4	48.8
	2007	604	35.3	7.5	10.2	43.8	35.3	3.1	0.1	30.2	39.9
Russian Federation	2003	386	51.6	4.0	6.9	37.5	51.6	0.0	0.0	49.0	54.2
	2007	642	53.8	2.9	8.6	33.5	53.8	1.2	0.0	49.5	58.3
Scotland	2003	291	36.3	2.1	11.4	50.2	36.3	0.0	0.0	29.5	44.6
	2007	574	25.1	3.7	10.3	60.0	25.1	0.9	0.0	20.1	30.2
Serbia	2003	347	44.9	5.8	8.1	41.2	44.9	0.0	0.0	43.3	46.2
	2007	575	46.6	4.4	6.1	39.9	46.6	3.0	0.0	37.7	55.1
Singapore	2003	498	69.8	1.8	4.9	23.5	69.8	0.0	0.0	71.8	67.8
	2007	654	58.0	2.2	5.3	34.3	58.0	0.2	0.0	60.5	55.7
Slovenia	2003	285	70.4	2.6	3.5	23.6	70.4	0.0	0.0	68.3	72.2
	2007	578	73.5	0.6	2.8	22.8	73.5	0.3	0.0	69.0	77.4
Sweden	2003	362	70.3	0.0	4.5	25.2	70.3	0.0	0.0	63.8	78.8
	2007	743	66.9	0.3	3.8	28.1	66.9	0.8	0.0	61.1	72.5
Tunisia	2003	403	19.0	9.0	21.2	50.7	19.0	0.0	0.0	11.5	28.2
	2007	581	29.0	7.5	16.0	45.0	29.0	2.4	0.0	22.1	36.6
United States	2003	740	49.7	2.2	9.6	38.6	49.7	0.0	0.0	44.3	56.2
	2007	1073	41.1	1.6	9.2	47.2	41.1	0.5	0.4	34.3	48.6
International Avg.	2003	373	46.1	5.9	10.1	37.9	46.1	0.0	0.0	41.6	50.4
	2007	624	44.0	5.0	9.0	40.4	44.0	1.5	0.1	39.5	48.3
Basque Country, Spain	2003	207	50.4	1.5	11.4	36.7	50.4	0.0	0.0	43.9	59.3
	2007	332	58.4	0.9	6.9	32.7	58.4	1.0	0.0	52.3	63.8
Ontario, Canada	2003	334	61.0	0.3	4.6	34.1	61.0	0.0	0.0	59.2	63.8
	2007	487	51.3	1.0	8.4	37.7	51.3	1.6	0.0	48.2	54.9
Quebec, Canada	2003	355	68.1	0.5	4.5	26.8	68.1	0.0	0.0	62.4	74.2
	2007	558	54.3	1.8	6.3	37.0	54.3	0.4	0.2	53.8	54.7

DIFF = Percent correct
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Science: Chemistry / Reasoning (S032565 - S01_02)
 Label: Density of salt solution
 Type: CR Key: -

COUNTRY	Year	N	10	11	19	70	71	72	79	OMIT TED	NOT REACH ED	V1	1.GIRL %Right	2.BOY %Right
Armenia	2003	168	9.0	0.5	3.8	36.4	22.3	23.0	4.9	0.0	0.0	13.3	20.4	5.6
	2007	617	18.0	0.4	0.0	37.0	5.8	12.7	10.1	15.9	0.1	18.4	18.8	18.0
Australia	2003	370	9.4	34.5	0.1	20.0	13.3	21.9	0.7	0.0	0.0	44.1	48.0	40.2
	2007	582	7.0	28.8	0.2	31.1	10.1	16.9	1.8	3.8	0.3	36.0	36.6	35.4
Bahrain	2003	322	5.0	10.9	3.1	41.8	14.4	22.2	2.6	0.0	0.0	19.0	27.1	10.3
	2007	606	9.6	24.5	0.4	29.7	11.6	13.8	5.1	4.8	0.5	34.5	45.4	24.2
Botswana	2003	408	1.1	9.0	1.3	34.8	22.6	18.5	12.8	0.0	0.0	11.4	12.2	10.5
	2007	601	4.0	10.0	0.3	31.9	13.7	25.6	11.1	3.5	0.0	14.2	17.7	10.5
Bulgaria	2003	238	11.5	7.7	0.1	37.2	17.7	24.1	1.8	0.0	0.0	19.3	19.2	19.4
	2007	439	7.9	3.0	0.2	38.2	12.2	17.8	2.9	17.8	0.0	11.1	10.1	12.0
Chinese Taipei	2003	432	9.1	27.2	2.0	23.2	10.3	28.2	0.0	0.0	0.0	38.3	42.4	34.4
	2007	574	9.4	20.2	1.5	24.2	14.3	29.0	0.2	1.3	0.0	31.1	32.7	29.5
Cyprus	2003	295	4.7	13.5	0.3	33.4	15.6	30.6	1.9	0.0	0.0	18.5	24.6	11.5
	2007	625	2.3	22.3	0.5	29.6	14.8	24.1	0.8	5.6	0.0	25.1	30.1	20.5
Egypt	2003	565	12.3	9.3	0.7	29.8	13.3	29.3	5.3	0.0	0.0	22.3	24.9	19.9
	2007	935	7.4	6.2	0.0	37.2	16.3	26.3	1.9	4.7	0.0	13.6	17.1	10.2
England	2003	208	4.5	42.6	0.0	19.4	13.0	20.5	0.0	0.0	0.0	47.1	50.7	42.7
	2007	589	15.1	35.9	0.0	19.0	11.0	15.9	0.5	2.6	0.0	51.1	54.1	47.9
Ghana	2003	275	1.1	4.6	0.6	24.7	22.7	20.1	26.2	0.0	0.0	6.3	5.0	7.4
	2007	755	4.6	4.6	0.0	21.8	18.7	17.9	9.4	21.9	1.0	9.2	9.8	8.7
Hong Kong SAR	2003	404	14.6	22.3	0.5	32.2	6.4	22.8	1.1	0.0	0.0	37.5	35.3	39.7
	2007	501	14.5	14.3	0.0	35.5	7.5	24.9	1.3	2.1	0.0	28.8	31.3	26.3
Hungary	2003	243	14.9	38.3	0.0	26.5	8.5	11.0	0.7	0.0	0.0	53.2	45.2	60.6
	2007	582	18.2	21.0	0.0	28.9	9.9	16.2	0.5	5.3	0.0	39.2	43.6	34.9
Indonesia	2003	364	10.7	6.9	0.2	27.8	24.3	22.0	8.1	0.0	0.0	17.8	22.4	13.1
	2007	606	9.0	9.3	0.4	26.8	16.6	17.1	10.3	10.1	0.4	18.7	19.9	17.6
Iran, Islamic Rep. of	2003	381	0.8	11.0	0.5	33.3	21.4	32.8	0.3	0.0	0.0	12.3	14.4	10.8
	2007	571	6.1	8.9	0.3	28.0	22.1	30.3	0.8	3.4	0.0	15.4	17.7	13.4
Israel	2003	316	14.2	7.3	0.7	37.2	13.8	24.0	2.8	0.0	0.0	22.2	18.8	25.5
	2007	460	16.1	4.5	0.3	28.4	16.9	18.4	3.8	11.6	0.0	20.9	22.4	19.3
Italy	2003	285	16.2	11.7	0.0	38.4	12.3	19.7	1.7	0.0	0.0	27.9	29.4	26.5
	2007	631	14.1	16.9	0.1	31.4	12.0	15.4	0.8	9.2	0.1	31.1	32.7	29.6
Japan	2003	385	16.2	37.2	0.0	19.3	8.8	17.6	0.9	0.0	0.0	53.4	53.9	52.9
	2007	609	21.0	31.1	0.0	15.4	10.8	18.2	0.8	2.1	0.4	52.2	51.7	52.8
Jordan	2003	332	12.9	13.2	4.1	21.6	19.3	24.4	4.5	0.0	0.0	30.2	35.3	25.0
	2007	743	8.1	14.1	0.8	27.7	19.1	23.2	3.1	4.0	0.0	23.0	25.9	20.4
Korea, Rep. of	2003	436	17.3	41.5	0.0	13.3	10.0	17.7	0.2	0.0	0.0	58.8	58.1	59.5
	2007	612	12.8	43.3	0.0	18.3	7.5	16.2	0.4	1.4	0.0	56.1	56.0	56.2
Lebanon	2003	256	10.4	1.9	12.4	38.0	14.4	19.0	3.9	0.0	0.0	24.7	27.1	21.8
	2007	533	5.5	9.2	1.6	33.2	21.8	20.4	3.4	4.9	0.0	16.2	15.1	17.7

V1 = Percent scoring 1 or better V2 = Percent scoring 2 or better
 Percent right for boys and girls corresponds to the percent obtaining the maximum score on the item.
 Because of missing gender information, some totals may appear inconsistent.

Science: Chemistry / Reasoning (S032565 - S01_02)
 Label: Density of salt solution
 Type: CR Key: -

COUNTRY	Year	N	10	11	19	70	71	72	79	OMIT TED	NOT REACH ED	V1	1.GIRL %Right	2.BOY %Right
Lithuania	2003	343	16.1	13.9	0.0	36.8	13.8	18.0	1.4	0.0	0.0	30.1	32.2	27.5
	2007	572	12.7	17.7	0.0	28.4	14.5	19.3	0.5	7.0	0.0	30.3	32.2	28.4
Malaysia	2003	414	8.7	25.7	0.7	34.2	7.7	21.9	1.1	0.0	0.0	35.1	39.3	31.5
	2007	643	13.6	16.0	0.7	34.7	8.8	20.8	1.2	4.3	0.0	30.3	32.2	28.2
Norway	2003	322	7.9	10.3	0.0	29.2	16.2	34.8	1.7	0.0	0.0	18.1	17.1	19.2
	2007	655	6.7	16.0	0.6	33.8	15.9	22.2	0.8	3.8	0.1	23.3	25.6	20.9
Palestinian Nat'l Auth.	2003	406	5.1	9.3	0.9	23.5	24.8	31.6	4.7	0.0	0.0	15.3	18.0	12.0
	2007	624	3.8	7.5	1.0	30.0	19.9	30.8	3.2	3.8	0.0	12.3	14.6	9.9
Romania	2003	291	10.9	5.4	0.4	48.9	14.6	17.2	2.5	0.0	0.0	16.8	13.0	20.7
	2007	604	7.4	6.4	0.0	32.3	22.2	21.9	0.1	9.6	0.1	13.8	15.5	12.2
Russian Federation	2003	360	15.2	13.3	0.3	42.2	12.9	15.2	0.8	0.0	0.0	28.8	25.3	32.3
	2007	642	7.2	22.2	0.0	29.6	11.0	19.3	1.3	9.5	0.0	29.3	31.2	27.4
Scotland	2003	275	5.6	29.3	0.0	29.3	12.7	22.8	0.2	0.0	0.0	35.0	40.2	28.4
	2007	574	6.0	23.5	0.0	31.0	14.7	18.9	0.9	5.0	0.0	29.4	30.6	28.2
Serbia	2003	266	2.4	20.0	0.3	31.2	20.9	21.7	3.5	0.0	0.0	22.7	24.9	21.0
	2007	579	7.8	6.2	0.0	28.8	13.1	20.9	2.1	21.1	0.0	14.0	13.8	14.2
Singapore	2003	494	14.7	40.8	0.0	15.9	6.7	21.6	0.2	0.0	0.0	55.5	55.4	55.6
	2007	654	18.7	26.8	0.0	17.7	10.1	25.2	0.6	0.9	0.0	45.4	44.0	46.7
Slovenia	2003	270	9.0	27.2	0.6	25.5	15.4	21.7	0.5	0.0	0.0	36.9	38.0	35.8
	2007	578	15.2	30.0	0.1	21.9	13.5	16.5	1.0	1.8	0.0	45.3	44.3	46.1
Sweden	2003	345	6.2	17.4	0.9	29.8	12.8	32.3	0.7	0.0	0.0	24.4	24.6	24.3
	2007	743	13.6	14.6	0.0	33.6	9.3	22.3	1.1	5.5	0.0	28.2	31.4	25.2
Tunisia	2003	397	5.1	12.4	0.2	42.0	16.4	22.7	1.2	0.0	0.0	17.7	18.7	16.5
	2007	581	9.5	14.4	1.1	33.9	15.4	20.4	0.5	4.8	0.0	25.0	25.0	25.0
United States	2003	725	15.9	34.8	0.1	14.3	12.1	21.9	0.9	0.0	0.0	50.8	49.2	52.9
	2007	1073	21.5	26.0	0.1	19.8	12.6	17.0	0.7	1.9	0.4	47.7	48.2	47.1
International Avg.	2003	351	9.7	18.5	1.1	30.0	14.9	22.8	3.0	0.0	0.0	29.2	30.6	27.7
	2007	627	10.7	16.8	0.3	28.7	13.8	20.5	2.5	6.5	0.1	27.9	29.6	26.2
Basque Country, Spain	2003	195	13.2	19.3	0.0	24.4	15.3	27.5	0.4	0.0	0.0	32.5	33.9	30.5
	2007	332	12.6	22.2	0.2	20.3	15.4	25.8	1.5	2.0	0.0	35.0	34.9	35.1
Ontario, Canada	2003	319	31.4	17.5	0.0	27.3	8.4	14.8	0.7	0.0	0.0	48.9	48.1	50.2
	2007	487	19.6	30.9	0.0	18.7	10.1	15.0	1.4	4.3	0.0	50.5	50.7	50.2
Quebec, Canada	2003	343	19.3	23.1	0.0	26.3	16.3	13.6	1.5	0.0	0.0	42.3	41.0	43.8
	2007	558	15.1	22.4	0.0	21.6	17.8	17.4	1.9	3.6	0.2	37.5	39.9	35.5

V1 = Percent scoring 1 or better V2 = Percent scoring 2 or better
 Percent right for boys and girls corresponds to the percent obtaining the maximum score on the item.
 Because of missing gender information, some totals may appear inconsistent.

Science: Physics / Knowing (S032403 - S01_03)
 Label: Liquid compared to a gas
 Type: MC Key: C

COUNTRY	Year	N	DIFF	A	B	C	D	OMIT TED	NOT REACH ED	1.GIRL %Right	2.BOY %Right
Armenia	2003	451	36.0	19.2	22.7	36.0	22.2	0.0	0.0	40.0	31.8
	2007	622	46.7	11.9	11.8	46.7	16.8	12.6	0.1	44.7	48.6
Australia	2003	381	49.0	8.7	13.2	49.0	29.1	0.0	0.0	48.6	49.3
	2007	582	44.7	9.0	12.4	44.7	32.7	0.8	0.3	36.0	52.7
Bahrain	2003	332	31.4	13.6	26.3	31.4	28.7	0.0	0.0	29.7	33.0
	2007	606	32.5	13.5	21.2	32.5	30.4	1.7	0.7	31.0	34.0
Botswana	2003	424	29.6	15.3	27.3	29.6	27.8	0.0	0.0	29.9	29.3
	2007	601	32.4	16.5	22.2	32.4	28.0	0.9	0.0	34.1	30.7
Bulgaria	2003	295	51.0	10.1	17.4	51.0	21.5	0.0	0.0	44.9	56.1
	2007	439	48.9	10.9	14.9	48.9	20.8	4.1	0.4	49.3	48.6
Chinese Taipei	2003	441	54.9	11.3	14.0	54.9	19.7	0.0	0.0	55.1	54.8
	2007	574	48.2	16.4	14.5	48.2	19.4	1.5	0.0	46.3	50.1
Cyprus	2003	331	43.1	12.2	21.4	43.1	23.3	0.0	0.0	39.7	46.9
	2007	625	43.0	10.5	22.2	43.0	23.6	0.7	0.0	40.3	45.5
Egypt	2003	578	35.0	11.6	24.3	35.0	29.1	0.0	0.0	28.5	40.8
	2007	934	32.6	10.1	26.8	32.6	28.8	1.7	0.0	30.9	34.2
England	2003	215	60.8	10.8	11.3	60.8	17.0	0.0	0.0	58.5	63.7
	2007	589	61.6	8.2	8.7	61.6	20.3	1.2	0.0	59.6	63.7
Ghana	2003	402	29.6	13.2	27.7	29.6	29.5	0.0	0.0	30.4	28.9
	2007	755	29.7	15.2	24.5	29.7	27.5	1.6	1.4	27.9	31.2
Hong Kong SAR	2003	410	46.6	19.8	12.7	46.6	20.8	0.0	0.0	43.0	50.3
	2007	501	47.0	20.2	13.6	47.0	18.0	1.2	0.0	44.5	49.4
Hungary	2003	262	42.7	8.6	13.3	42.7	35.4	0.0	0.0	36.1	48.5
	2007	582	48.1	7.7	10.6	48.1	31.2	2.5	0.0	44.1	52.0
Indonesia	2003	462	28.0	17.9	25.2	28.0	28.9	0.0	0.0	23.0	32.9
	2007	606	23.3	14.2	25.2	23.3	33.7	3.2	0.4	23.2	23.5
Iran, Islamic Rep. of	2003	398	43.2	13.1	15.0	43.2	28.8	0.0	0.0	42.5	43.6
	2007	571	49.9	11.3	13.0	49.9	24.5	1.3	0.0	50.4	49.5
Israel	2003	352	60.0	6.8	10.9	60.0	22.2	0.0	0.0	59.5	60.5
	2007	460	61.2	6.4	11.5	61.2	19.0	1.8	0.2	66.7	55.1
Italy	2003	310	48.1	11.8	15.8	48.1	24.2	0.0	0.0	46.4	49.7
	2007	630	40.9	11.4	16.6	40.9	27.9	3.0	0.3	40.7	41.1
Japan	2003	388	51.1	14.6	17.7	51.1	16.6	0.0	0.0	48.5	53.5
	2007	609	47.5	13.2	19.8	47.5	17.8	1.2	0.4	50.5	44.3
Jordan	2003	343	34.0	7.4	20.5	34.0	38.1	0.0	0.0	34.7	33.3
	2007	743	38.3	9.4	15.6	38.3	35.1	1.4	0.3	42.0	35.0
Korea, Rep. of	2003	445	72.8	8.8	11.7	72.8	6.7	0.0	0.0	72.1	73.4
	2007	612	75.5	9.0	6.9	75.5	8.4	0.0	0.2	72.8	77.8
Lebanon	2003	293	29.8	9.5	25.8	29.8	34.9	0.0	0.0	24.9	36.5
	2007	529	34.1	10.8	22.2	34.1	28.0	4.5	0.5	31.5	37.3

DIFF = Percent correct
 Because of missing gender information, some totals may appear inconsistent.

Science: Physics / Knowing (S032403 - S01_03)
 Label: Liquid compared to a gas
 Type: MC Key: C

COUNTRY	Year	N	DIFF	A	B	C	D	OMIT TED	NOT REACH ED	1.GIRL %Right	2.BOY %Right
Lithuania	2003	377	53.5	10.5	16.2	53.5	19.8	0.0	0.0	53.9	53.0
	2007	572	44.9	16.2	12.9	44.9	22.8	3.3	0.0	45.8	44.0
Malaysia	2003	433	42.3	14.3	20.5	42.3	22.9	0.0	0.0	37.7	46.5
	2007	643	48.3	17.1	15.7	48.3	18.6	0.2	0.1	46.6	50.1
Norway	2003	329	44.7	11.4	20.8	44.7	23.0	0.0	0.0	43.5	46.1
	2007	655	42.1	16.0	14.9	42.1	22.7	3.8	0.4	40.1	44.2
Palestinian Nat'l Auth.	2003	433	30.2	9.6	19.5	30.2	40.6	0.0	0.0	25.4	35.9
	2007	628	29.8	8.7	21.2	29.8	38.5	1.6	0.0	26.6	33.3
Romania	2003	320	36.8	12.4	19.1	36.8	31.7	0.0	0.0	34.0	39.8
	2007	603	34.2	14.0	18.4	34.2	29.7	3.4	0.2	34.1	34.3
Russian Federation	2003	369	47.1	16.1	14.3	47.1	22.5	0.0	0.0	46.8	47.5
	2007	642	44.1	12.6	15.7	44.1	24.7	2.9	0.0	39.4	48.9
Scotland	2003	286	40.6	15.9	14.9	40.6	28.5	0.0	0.0	43.0	37.7
	2007	574	45.0	12.3	15.5	45.0	26.2	0.8	0.1	37.7	52.4
Serbia	2003	342	44.8	17.2	15.9	44.8	22.2	0.0	0.0	40.1	48.4
	2007	577	37.3	16.2	13.7	37.3	25.1	7.7	0.0	33.9	40.5
Singapore	2003	497	68.9	6.5	11.5	68.9	13.2	0.0	0.0	68.5	69.2
	2007	654	68.3	6.8	11.1	68.3	13.8	0.0	0.0	67.5	69.0
Slovenia	2003	277	52.1	8.6	12.5	52.1	26.7	0.0	0.0	51.7	52.5
	2007	578	54.9	9.7	10.8	54.9	23.9	0.7	0.0	50.5	58.7
Sweden	2003	350	42.5	16.9	15.9	42.5	24.7	0.0	0.0	40.6	45.0
	2007	743	43.9	18.0	12.6	43.9	23.1	2.2	0.3	40.8	46.9
Tunisia	2003	374	31.5	7.1	24.6	31.5	36.8	0.0	0.0	27.5	36.5
	2007	581	30.3	5.5	21.7	30.3	38.8	3.7	0.0	27.7	33.3
United States	2003	739	48.5	11.7	13.4	48.5	26.4	0.0	0.0	47.1	50.1
	2007	1073	46.3	11.9	14.8	46.3	25.5	1.0	0.5	42.6	50.4
International Avg.	2003	383	44.3	12.2	18.0	44.3	25.6	0.0	0.0	42.3	46.2
	2007	627	44.1	12.1	16.2	44.1	25.0	2.4	0.2	42.4	45.8
Basque Country, Spain	2003	201	45.7	9.4	19.8	45.7	25.1	0.0	0.0	41.2	51.8
	2007	332	44.6	9.5	15.5	44.6	29.1	1.2	0.0	41.1	47.7
Ontario, Canada	2003	330	57.9	9.3	13.2	57.9	19.6	0.0	0.0	59.1	56.0
	2007	487	52.3	8.4	14.0	52.3	24.7	0.6	0.0	47.0	58.7
Quebec, Canada	2003	352	39.0	12.4	15.6	39.0	33.1	0.0	0.0	37.7	40.3
	2007	558	39.5	10.9	17.1	39.5	29.2	3.2	0.2	38.8	40.0

DIFF = Percent correct
 Because of missing gender information, some totals may appear inconsistent.

Science: Physics / Knowing (S032273 - S01_04)
 Label: Iron nail with wire coiled around it
 Type: MC Key: C

COUNTRY	Year	N	DIFF	A	B	C	D	OMIT TED	NOT REACH ED	1.GIRL %Right	2.BOY %Right
Armenia	2003	455	42.7	4.8	39.0	42.7	13.4	0.0	0.0	44.1	41.4
	2007	620	43.9	3.7	36.6	43.9	8.7	6.8	0.4	39.0	48.4
Australia	2003	386	37.8	3.1	41.0	37.8	18.1	0.0	0.0	35.0	40.6
	2007	582	36.0	1.9	48.1	36.0	12.3	0.9	0.8	33.5	38.3
Bahrain	2003	340	80.4	1.0	15.2	80.4	3.4	0.0	0.0	85.3	75.4
	2007	606	77.6	2.1	11.9	77.6	7.2	0.5	0.7	83.5	72.0
Botswana	2003	427	39.2	3.3	45.9	39.2	11.5	0.0	0.0	38.2	40.3
	2007	601	41.4	4.0	46.6	41.4	7.5	0.1	0.4	38.1	44.9
Bulgaria	2003	305	45.6	1.5	39.2	45.6	13.7	0.0	0.0	34.3	55.0
	2007	439	40.7	3.6	41.1	40.7	11.3	2.9	0.5	37.2	44.0
Chinese Taipei	2003	440	31.7	0.7	36.9	31.7	30.7	0.0	0.0	23.4	39.4
	2007	574	26.8	1.1	44.2	26.8	27.3	0.5	0.0	20.3	33.3
Cyprus	2003	334	33.1	3.4	40.3	33.1	23.2	0.0	0.0	26.9	39.7
	2007	625	27.7	3.0	42.7	27.7	26.2	0.4	0.0	25.8	29.5
Egypt	2003	583	18.6	9.2	49.4	18.6	22.9	0.0	0.0	18.8	18.3
	2007	934	20.0	9.4	46.5	20.0	23.2	0.9	0.0	17.8	22.1
England	2003	217	49.4	1.8	35.5	49.4	13.4	0.0	0.0	42.0	58.1
	2007	589	55.9	0.6	34.8	55.9	8.6	0.1	0.0	53.9	58.0
Ghana	2003	405	23.4	10.2	49.7	23.4	16.6	0.0	0.0	27.0	20.4
	2007	755	20.3	6.9	53.8	20.3	17.0	0.7	1.4	22.6	18.4
Hong Kong SAR	2003	411	33.6	3.6	23.3	33.6	39.5	0.0	0.0	29.6	37.6
	2007	501	26.2	2.5	30.7	26.2	39.8	0.9	0.0	18.9	33.3
Hungary	2003	264	28.4	0.0	40.1	28.4	31.5	0.0	0.0	21.1	34.9
	2007	582	32.6	0.8	39.8	32.6	26.0	0.8	0.0	27.6	37.4
Indonesia	2003	468	35.1	1.6	50.4	35.1	12.8	0.0	0.0	26.9	43.0
	2007	606	36.4	1.3	52.2	36.4	8.6	1.1	0.4	21.8	50.7
Iran, Islamic Rep. of	2003	404	63.8	1.4	19.1	63.8	15.7	0.0	0.0	62.0	65.0
	2007	571	65.3	1.1	19.9	65.3	12.6	1.1	0.0	62.9	67.4
Israel	2003	354	28.2	6.9	36.3	28.2	28.6	0.0	0.0	25.2	31.2
	2007	460	18.8	7.2	47.2	18.8	25.1	1.3	0.4	15.0	23.0
Italy	2003	326	42.0	5.9	35.9	42.0	16.3	0.0	0.0	45.7	38.5
	2007	631	44.0	3.6	31.4	44.0	19.6	1.0	0.4	39.9	47.9
Japan	2003	394	75.2	0.0	19.2	75.2	5.5	0.0	0.0	71.7	78.5
	2007	609	69.5	1.0	25.2	69.5	3.2	0.7	0.4	66.1	73.2
Jordan	2003	345	49.8	1.9	24.2	49.8	24.1	0.0	0.0	43.2	56.3
	2007	743	48.7	2.6	28.3	48.7	19.0	1.1	0.3	50.9	46.8
Korea, Rep. of	2003	445	44.0	1.7	48.0	44.0	6.3	0.0	0.0	33.4	53.9
	2007	612	27.3	2.1	62.2	27.3	8.2	0.0	0.2	19.2	34.3
Lebanon	2003	304	29.0	3.5	37.8	29.0	29.7	0.0	0.0	24.9	34.5
	2007	527	20.0	4.5	48.9	20.0	24.6	1.5	0.5	16.4	24.5

DIFF = Percent correct
 Because of missing gender information, some totals may appear inconsistent.

Science: Physics / Knowing (S032273 - S01_04)
 Label: Iron nail with wire coiled around it
 Type: MC Key: C

COUNTRY	Year	N	DIFF	A	B	C	D	OMIT TED	NOT REACH ED	1.GIRL %Right	2.BOY %Right
Lithuania	2003	377	17.4	0.3	47.9	17.4	34.4	0.0	0.0	16.4	18.6
	2007	571	29.9	1.2	45.0	29.9	23.3	0.6	0.0	23.7	36.1
Malaysia	2003	432	13.6	1.7	59.5	13.6	25.3	0.0	0.0	8.3	18.3
	2007	643	14.8	3.4	58.1	14.8	23.4	0.3	0.1	11.5	18.3
Norway	2003	333	33.0	1.0	29.7	33.0	36.4	0.0	0.0	27.9	38.4
	2007	655	41.2	2.3	33.8	41.2	20.0	2.3	0.4	37.5	45.0
Palestinian Nat'l Auth.	2003	439	34.3	5.1	34.3	34.3	26.4	0.0	0.0	25.2	45.2
	2007	628	38.4	6.5	34.6	38.4	19.1	1.3	0.0	29.7	47.7
Romania	2003	333	34.1	0.8	38.3	34.1	26.9	0.0	0.0	24.1	44.4
	2007	604	28.7	2.6	41.1	28.7	26.6	0.7	0.2	29.8	27.8
Russian Federation	2003	381	40.4	0.2	36.7	40.4	22.7	0.0	0.0	33.8	47.0
	2007	642	40.2	0.9	40.1	40.2	17.7	0.9	0.1	31.4	49.4
Scotland	2003	290	33.7	1.2	48.6	33.7	16.5	0.0	0.0	37.0	29.9
	2007	574	40.0	2.0	46.1	40.0	11.6	0.1	0.3	38.0	42.0
Serbia	2003	353	44.4	1.5	37.9	44.4	16.2	0.0	0.0	47.2	42.2
	2007	574	42.0	3.4	34.5	42.0	18.3	1.8	0.0	39.0	44.9
Singapore	2003	498	62.1	0.9	21.2	62.1	15.8	0.0	0.0	60.5	63.7
	2007	654	63.6	1.3	22.3	63.6	12.7	0.0	0.0	56.0	70.4
Slovenia	2003	284	14.8	1.3	49.0	14.8	34.9	0.0	0.0	14.2	15.3
	2007	578	15.0	0.7	51.2	15.0	33.2	0.0	0.0	12.5	17.1
Sweden	2003	358	50.8	0.6	30.7	50.8	18.0	0.0	0.0	44.2	59.3
	2007	743	46.0	1.2	32.4	46.0	19.3	0.8	0.3	38.5	53.2
Tunisia	2003	400	19.0	17.5	29.1	19.0	34.3	0.0	0.0	21.6	15.9
	2007	581	15.0	4.8	29.2	15.0	49.3	1.7	0.0	12.4	17.8
United States	2003	741	35.9	2.9	45.6	35.9	15.6	0.0	0.0	30.3	42.7
	2007	1073	30.6	2.4	52.5	30.6	13.2	0.9	0.5	26.3	35.3
International Avg.	2003	389	38.3	3.0	37.4	38.3	21.2	0.0	0.0	34.8	41.9
	2007	627	37.1	2.9	39.8	37.1	18.9	1.0	0.3	33.2	41.0
Basque Country, Spain	2003	206	35.8	3.8	37.7	35.8	22.6	0.0	0.0	29.2	44.8
	2007	332	38.8	2.6	37.4	38.8	20.5	0.7	0.0	35.7	41.6
Ontario, Canada	2003	332	40.9	3.1	34.3	40.9	21.7	0.0	0.0	36.5	47.7
	2007	487	34.2	2.4	51.0	34.2	11.8	0.6	0.0	30.6	38.4
Quebec, Canada	2003	355	31.0	2.4	39.6	31.0	27.0	0.0	0.0	23.8	38.6
	2007	558	25.7	3.0	43.0	25.7	26.5	1.2	0.5	22.1	28.8

DIFF = Percent correct
 Because of missing gender information, some totals may appear inconsistent.

Science: Earth Science / Applying (S032019A - S01_05A)
 Label: Physical causes of weathering
 Type: CR Key: -

COUNTRY	Year	N	10	19	70	71	79	OMIT TED	NOT REACH ED	V1	1.GIRL %Right	2.BOY %Right
Armenia	2003	81	61.1	7.5	1.6	0.0	29.8	0.0	0.0	68.6	69.2	67.9
	2007	621	25.9	3.9	5.3	0.0	24.8	39.5	0.5	29.9	32.6	27.3
Australia	2003	281	47.1	1.0	11.2	15.0	25.6	0.0	0.0	48.1	49.9	46.6
	2007	582	31.5	0.6	6.9	10.2	24.3	25.7	0.8	32.1	28.4	35.5
Bahrain	2003	130	2.6	8.4	14.7	1.9	72.4	0.0	0.0	11.0	10.3	12.1
	2007	606	13.5	5.3	3.9	4.8	27.9	43.9	0.7	18.8	25.3	12.6
Botswana	2003	340	21.3	9.7	15.2	2.0	51.8	0.0	0.0	30.9	28.3	34.0
	2007	601	19.4	5.3	9.0	1.7	49.7	14.5	0.4	24.7	26.5	22.8
Bulgaria	2003	142	26.7	1.1	38.0	2.7	31.5	0.0	0.0	27.8	25.3	29.8
	2007	439	18.0	1.4	12.6	4.0	8.3	55.2	0.5	19.4	21.0	17.9
Chinese Taipei	2003	287	34.1	0.7	24.7	1.4	39.1	0.0	0.0	34.8	32.9	36.6
	2007	574	19.9	1.7	18.8	0.4	21.4	37.8	0.0	21.6	18.0	25.1
Cyprus	2003	123	33.0	0.6	28.3	4.1	34.0	0.0	0.0	33.6	35.3	31.3
	2007	625	21.4	0.5	1.7	0.0	21.0	55.4	0.0	21.9	20.2	23.6
Egypt	2003	394	15.5	1.5	14.5	1.0	67.4	0.0	0.0	17.1	17.7	16.5
	2007	935	10.2	0.0	10.3	1.6	37.6	40.3	0.0	10.2	10.0	10.4
England	2003	169	54.0	0.0	13.3	11.2	21.5	0.0	0.0	54.0	50.7	58.6
	2007	589	39.8	0.0	11.2	6.0	20.2	22.8	0.0	39.8	43.0	36.4
Ghana	2003	157	6.1	2.2	0.5	7.0	84.1	0.0	0.0	8.4	7.7	8.9
	2007	755	3.7	0.1	2.5	6.3	32.8	53.2	1.5	3.7	4.1	3.4
Hong Kong SAR	2003	154	34.9	0.0	12.5	2.2	50.5	0.0	0.0	34.9	29.4	39.7
	2007	501	15.2	0.4	4.8	1.4	25.8	52.5	0.0	15.6	13.5	17.6
Hungary	2003	160	36.8	0.0	19.1	13.4	30.8	0.0	0.0	36.8	38.2	35.7
	2007	582	21.6	2.1	6.3	8.1	15.1	46.8	0.0	23.7	19.7	27.6
Indonesia	2003	276	20.5	4.7	2.3	11.3	61.2	0.0	0.0	25.2	29.8	21.2
	2007	606	11.7	2.0	3.6	7.7	45.9	28.8	0.4	13.6	12.1	15.2
Iran, Islamic Rep. of	2003	197	32.3	8.7	13.2	2.7	43.0	0.0	0.0	41.0	41.6	40.7
	2007	572	28.1	1.2	4.4	2.8	25.4	38.0	0.2	29.2	33.0	26.1
Israel	2003	161	35.1	0.6	13.1	12.5	38.7	0.0	0.0	35.7	27.2	44.9
	2007	460	10.5	1.5	3.0	6.8	23.0	54.8	0.4	12.0	12.3	11.6
Italy	2003	166	36.0	0.8	32.0	2.9	28.2	0.0	0.0	36.8	44.5	31.3
	2007	631	23.8	0.4	17.5	2.8	11.4	43.4	0.5	24.2	26.8	21.8
Japan	2003	195	57.9	0.0	2.9	8.0	31.2	0.0	0.0	57.9	48.5	65.6
	2007	609	27.6	0.0	3.8	2.3	23.0	42.9	0.4	27.6	27.3	28.0
Jordan	2003	182	26.0	2.7	6.9	6.3	58.0	0.0	0.0	28.7	28.5	29.0
	2007	743	25.5	1.4	5.5	0.9	31.7	34.6	0.3	26.9	35.8	18.9
Korea, Rep. of	2003	343	43.3	0.0	17.3	3.6	35.8	0.0	0.0	43.3	42.1	44.4
	2007	612	38.2	0.0	5.3	3.0	30.7	22.6	0.2	38.2	34.1	41.8
Lebanon	2003	56	13.9	0.0	17.9	1.3	66.9	0.0	0.0	13.9	18.0	8.3
	2007	533	2.7	1.3	3.1	2.6	23.6	66.2	0.5	4.1	5.0	3.0

V1 = Percent scoring 1 or better V2 = Percent scoring 2 or better
 Percent right for boys and girls corresponds to the percent obtaining the maximum score on the item.
 Because of missing gender information, some totals may appear inconsistent.

Science: Earth Science / Applying (S032019A - S01_05A)
 Label: Physical causes of weathering
 Type: CR Key: -

COUNTRY	Year	N	10	19	70	71	79	OMIT TED	NOT REACH ED	V1	1.GIRL %Right	2.BOY %Right
Lithuania	2003	160	15.1	0.0	45.1	0.5	39.2	0.0	0.0	15.1	13.6	16.5
	2007	572	14.5	0.4	10.4	2.5	17.4	54.7	0.0	15.0	15.4	14.6
Malaysia	2003	203	18.2	0.6	16.8	2.3	62.2	0.0	0.0	18.8	20.6	17.3
	2007	643	3.2	0.2	2.6	2.8	39.0	51.9	0.2	3.5	2.8	4.2
Norway	2003	178	24.2	0.0	12.8	10.3	52.7	0.0	0.0	24.2	23.1	25.5
	2007	655	12.1	1.5	6.5	5.7	28.5	45.3	0.4	13.6	15.6	11.5
Palestinian Nat'l Auth.	2003	256	11.9	2.1	9.4	4.1	72.5	0.0	0.0	14.0	15.0	12.8
	2007	629	7.4	1.7	5.8	2.1	46.0	37.1	0.0	9.1	10.3	7.9
Romania	2003	149	26.4	2.0	37.8	7.4	26.3	0.0	0.0	28.5	27.8	29.3
	2007	604	12.0	0.9	8.8	8.5	15.7	53.8	0.2	12.9	11.2	14.4
Russian Federation	2003	235	49.9	0.0	27.7	5.9	16.5	0.0	0.0	49.9	49.4	50.3
	2007	642	30.0	0.0	8.4	13.4	10.5	37.3	0.4	30.0	26.7	33.4
Scotland	2003	174	35.5	0.0	20.0	18.6	25.8	0.0	0.0	35.5	32.5	39.4
	2007	574	23.8	0.0	4.7	8.1	23.5	39.7	0.3	23.8	21.7	25.9
Serbia	2003	152	10.5	13.6	19.9	17.0	39.0	0.0	0.0	24.2	20.8	26.6
	2007	579	9.9	1.0	8.7	6.9	8.8	64.6	0.0	10.9	11.1	10.8
Singapore	2003	358	40.6	0.0	14.1	10.6	34.7	0.0	0.0	40.6	42.1	39.0
	2007	654	29.9	0.4	5.1	8.9	32.7	23.0	0.0	30.3	30.8	29.9
Slovenia	2003	132	18.3	2.2	14.2	5.4	59.8	0.0	0.0	20.5	26.3	15.0
	2007	578	18.3	0.0	7.5	5.9	25.1	43.2	0.0	18.3	18.3	18.4
Sweden	2003	183	28.3	0.0	11.8	4.4	55.5	0.0	0.0	28.3	25.0	32.5
	2007	743	13.9	0.4	7.4	7.0	22.4	48.7	0.3	14.3	14.3	14.3
Tunisia	2003	168	15.0	0.6	27.7	0.0	56.7	0.0	0.0	15.6	13.6	17.6
	2007	581	9.8	1.3	24.1	4.1	24.6	36.1	0.0	11.1	9.6	12.8
United States	2003	599	35.5	0.2	13.0	18.1	33.3	0.0	0.0	35.7	33.3	38.7
	2007	1073	36.4	0.0	12.4	17.7	19.8	13.3	0.5	36.4	34.1	38.9
International Avg.	2003	210	29.3	2.2	17.3	6.5	44.7	0.0	0.0	31.5	30.9	32.2
	2007	627	19.1	1.1	7.6	5.1	25.4	41.4	0.3	20.2	20.3	20.1
Basque Country, Spain	2003	65	38.0	0.0	24.6	4.7	32.7	0.0	0.0	38.0	42.5	33.7
	2007	332	19.7	1.3	4.6	1.3	15.0	58.1	0.0	21.0	21.2	20.8
Ontario, Canada	2003	204	48.4	0.7	10.5	20.1	20.3	0.0	0.0	49.1	46.9	52.0
	2007	487	36.0	0.4	6.4	13.5	20.7	23.0	0.0	36.4	36.0	36.9
Quebec, Canada	2003	219	32.9	2.1	16.5	6.7	41.8	0.0	0.0	35.0	33.2	37.0
	2007	558	13.7	0.1	5.0	2.0	32.0	46.7	0.5	13.8	12.4	15.0

V1 = Percent scoring 1 or better V2 = Percent scoring 2 or better
 Percent right for boys and girls corresponds to the percent obtaining the maximum score on the item.
 Because of missing gender information, some totals may appear inconsistent.

Science: Earth Science / Applying (S032019B - S01_05B)
 Label: Chemical causes of weathering
 Type: CR Key: -

COUNTRY	Year	N	10	19	70	71	79	OMIT TED	NOT REACH ED	V1	1.GIRL %Right	2.BOY %Right
Armenia	2003	65	58.0	9.0	0.9	1.0	31.1	0.0	0.0	67.0	59.5	79.6
	2007	620	15.0	7.3	6.4	0.6	29.0	41.2	0.5	22.3	20.7	23.7
Australia	2003	250	27.1	0.0	14.1	19.7	39.1	0.0	0.0	27.1	33.1	22.4
	2007	582	15.3	0.0	13.1	11.3	22.7	36.6	0.9	15.3	12.5	17.8
Bahrain	2003	123	2.1	0.0	3.9	1.2	92.8	0.0	0.0	2.1	0.5	4.5
	2007	606	5.6	1.8	4.3	4.3	36.7	46.5	0.9	7.4	8.4	6.4
Botswana	2003	328	2.5	1.2	10.6	22.4	63.3	0.0	0.0	3.7	1.7	6.0
	2007	601	4.8	0.8	7.9	14.2	56.7	15.1	0.5	5.5	8.2	2.8
Bulgaria	2003	120	17.4	1.2	21.6	18.8	41.0	0.0	0.0	18.6	16.3	20.3
	2007	439	7.6	0.5	6.3	7.8	14.8	61.6	1.5	8.1	9.8	6.4
Chinese Taipei	2003	239	19.7	0.5	14.2	13.1	52.6	0.0	0.0	20.2	20.1	20.3
	2007	574	12.4	0.3	12.4	7.8	19.0	48.1	0.0	12.7	11.5	13.9
Cyprus	2003	90	13.2	1.3	19.3	9.4	56.9	0.0	0.0	14.5	12.6	17.1
	2007	625	5.5	0.2	1.0	0.0	24.7	68.6	0.0	5.7	4.6	6.7
Egypt	2003	384	6.8	0.7	3.2	7.1	82.2	0.0	0.0	7.6	6.4	8.6
	2007	935	5.1	0.0	4.9	5.8	40.1	43.6	0.5	5.1	6.6	3.7
England	2003	163	36.1	0.0	28.3	19.9	15.7	0.0	0.0	36.1	34.0	38.8
	2007	589	38.1	0.0	16.8	7.4	16.3	21.0	0.3	38.1	41.7	34.2
Ghana	2003	142	0.8	0.5	2.7	6.8	89.2	0.0	0.0	1.3	1.0	1.6
	2007	755	1.5	0.1	2.3	2.2	33.2	58.2	2.4	1.6	0.0	2.9
Hong Kong SAR	2003	160	22.4	0.0	18.1	17.6	41.9	0.0	0.0	22.4	19.6	25.3
	2007	501	16.4	1.2	6.1	4.0	21.6	50.5	0.3	17.7	19.1	16.2
Hungary	2003	146	33.2	0.0	38.2	8.3	20.3	0.0	0.0	33.2	30.5	35.6
	2007	582	13.4	0.3	10.3	6.5	17.4	51.5	0.6	13.7	15.5	11.9
Indonesia	2003	265	9.2	3.6	3.9	15.2	68.0	0.0	0.0	12.8	15.8	10.4
	2007	606	7.0	0.3	2.8	5.5	54.5	29.4	0.5	7.3	5.3	9.3
Iran, Islamic Rep. of	2003	185	7.4	2.5	3.9	31.6	54.6	0.0	0.0	9.9	5.7	12.7
	2007	572	6.0	1.1	8.1	8.9	28.3	47.2	0.3	7.2	9.7	5.1
Israel	2003	161	24.1	0.0	15.3	22.8	37.8	0.0	0.0	24.1	14.9	34.1
	2007	460	5.1	0.0	6.3	8.1	24.6	55.3	0.6	5.1	4.8	5.3
Italy	2003	111	15.5	0.0	21.4	14.9	48.3	0.0	0.0	15.5	15.9	15.1
	2007	631	8.0	1.0	4.9	8.2	12.5	64.5	0.8	9.0	8.9	9.2
Japan	2003	168	17.8	0.6	13.0	32.5	36.1	0.0	0.0	18.4	15.8	20.5
	2007	609	10.0	0.0	3.0	6.9	30.1	49.5	0.4	10.0	8.7	11.5
Jordan	2003	186	20.8	3.3	5.6	8.4	62.0	0.0	0.0	24.0	26.7	21.0
	2007	743	11.4	0.5	4.2	4.8	41.3	37.2	0.5	11.9	18.1	6.4
Korea, Rep. of	2003	308	9.7	0.0	26.3	17.9	46.1	0.0	0.0	9.7	10.2	9.3
	2007	612	12.6	0.0	4.7	13.1	42.5	27.0	0.2	12.6	12.7	12.6
Lebanon	2003	55	15.3	0.0	26.2	0.0	58.6	0.0	0.0	15.3	15.0	15.7
	2007	533	2.9	1.8	4.2	0.2	23.2	64.7	2.9	4.7	4.0	5.5

V1 = Percent scoring 1 or better V2 = Percent scoring 2 or better
 Percent right for boys and girls corresponds to the percent obtaining the maximum score on the item.
 Because of missing gender information, some totals may appear inconsistent.

Science: Earth Science / Applying (S032019B - S01_05B)
 Label: Chemical causes of weathering
 Type: CR Key: -

COUNTRY	Year	N	10	19	70	71	79	OMIT TED	NOT REACH ED	V1	1.GIRL %Right	2.BOY %Right
Lithuania	2003	140	4.5	1.0	30.3	19.5	44.7	0.0	0.0	5.5	3.5	7.2
	2007	572	8.2	0.1	7.5	6.8	18.2	59.0	0.0	8.4	7.6	9.1
Malaysia	2003	181	5.6	0.5	11.3	14.3	68.3	0.0	0.0	6.1	3.8	8.1
	2007	643	0.9	0.3	4.5	1.9	38.7	53.3	0.4	1.2	1.1	1.3
Norway	2003	166	17.2	0.0	12.6	16.7	53.4	0.0	0.0	17.2	14.4	20.3
	2007	655	4.9	0.0	5.3	8.1	30.6	50.5	0.6	4.9	5.8	4.0
Palestinian Nat'l Auth.	2003	254	7.0	2.5	12.9	3.0	74.7	0.0	0.0	9.5	8.4	10.8
	2007	629	3.4	1.4	9.1	2.8	45.3	37.9	0.1	4.9	5.7	4.0
Romania	2003	114	22.4	0.0	22.3	13.6	41.6	0.0	0.0	22.4	22.8	22.0
	2007	604	4.1	0.0	5.2	9.1	18.0	63.5	0.2	4.1	3.7	4.4
Russian Federation	2003	193	22.8	0.8	25.4	22.5	28.6	0.0	0.0	23.6	21.8	25.1
	2007	642	6.2	0.0	12.7	16.5	17.6	46.5	0.6	6.2	5.8	6.7
Scotland	2003	171	21.0	0.0	35.7	15.5	27.8	0.0	0.0	21.0	22.0	19.7
	2007	574	13.8	0.0	9.2	12.8	17.4	46.3	0.5	13.8	13.2	14.5
Serbia	2003	114	1.8	1.0	23.0	19.1	55.1	0.0	0.0	2.8	4.2	1.8
	2007	579	4.7	0.5	2.8	6.6	12.4	73.0	0.0	5.2	5.7	4.7
Singapore	2003	332	42.2	0.0	19.4	7.6	30.7	0.0	0.0	42.2	44.2	40.2
	2007	654	28.2	0.1	10.5	5.5	30.4	25.2	0.0	28.3	30.6	26.4
Slovenia	2003	135	15.7	0.8	13.5	17.2	52.8	0.0	0.0	16.5	17.0	15.9
	2007	578	14.3	0.0	5.6	7.1	31.8	41.3	0.0	14.3	10.6	17.3
Sweden	2003	160	11.3	0.0	12.4	7.7	68.5	0.0	0.0	11.3	13.0	9.3
	2007	743	8.5	0.0	5.4	8.1	24.5	53.3	0.3	8.5	9.1	7.9
Tunisia	2003	146	2.8	1.4	11.7	2.1	82.0	0.0	0.0	4.3	1.4	6.8
	2007	581	2.7	0.2	10.8	8.2	37.1	40.9	0.1	2.9	1.6	4.3
United States	2003	572	24.7	0.0	21.1	12.8	41.3	0.0	0.0	24.7	23.6	25.9
	2007	1073	20.7	0.0	15.0	22.6	22.5	18.6	0.5	20.7	19.7	21.7
International Avg.	2003	192	16.9	1.0	16.4	13.9	51.7	0.0	0.0	17.9	16.8	19.1
	2007	627	9.8	0.6	7.1	7.4	28.3	46.3	0.5	10.4	10.6	10.2
Basque Country, Spain	2003	55	18.4	0.0	19.8	11.0	50.7	0.0	0.0	18.4	19.0	17.7
	2007	332	3.8	1.2	3.5	4.9	17.9	68.8	0.0	5.0	7.5	2.7
Ontario, Canada	2003	179	36.3	0.0	23.3	14.5	25.7	0.0	0.0	36.4	35.0	38.5
	2007	487	19.2	0.0	16.3	8.0	24.1	32.5	0.0	19.2	18.5	20.0
Quebec, Canada	2003	204	17.0	0.0	24.4	7.3	51.3	0.0	0.0	17.0	15.8	18.1
	2007	558	7.2	0.3	4.7	3.7	32.5	50.9	0.7	7.5	7.0	7.9

V1 = Percent scoring 1 or better V2 = Percent scoring 2 or better
 Percent right for boys and girls corresponds to the percent obtaining the maximum score on the item.
 Because of missing gender information, some totals may appear inconsistent.

Science: Earth Science / Applying (S032516 - S01_06)
 Label: Effect of cutting down the trees
 Type: CR Key: -

COUNTRY	Year	N	10	11	19	70	71	79	OMIT TED	NOT REACH ED	V1	1.GIRL %Right	2.BOY %Right
Armenia	2003	174	80.1	5.2	6.7	0.0	0.5	7.5	0.0	0.0	92.0	93.6	89.6
	2007	619	46.8	4.0	3.8	3.3	0.4	23.7	17.6	0.5	54.6	57.2	52.2
Australia	2003	335	70.6	0.3	0.0	4.5	2.4	22.2	0.0	0.0	70.9	72.5	69.3
	2007	582	69.5	0.0	0.0	6.3	0.4	15.7	7.1	0.9	69.5	74.1	65.3
Bahrain	2003	243	6.7	0.0	33.8	5.8	4.8	48.9	0.0	0.0	40.5	41.4	39.2
	2007	606	48.3	1.2	7.5	7.5	2.9	14.4	17.5	0.9	56.9	64.4	49.7
Botswana	2003	346	39.0	0.6	3.2	3.3	8.4	45.4	0.0	0.0	42.9	41.7	44.2
	2007	601	38.5	0.5	1.7	3.9	5.2	40.2	9.3	0.7	40.7	43.7	37.4
Bulgaria	2003	202	65.4	1.2	0.3	7.2	4.9	20.9	0.0	0.0	67.0	65.3	68.6
	2007	439	39.4	2.8	2.0	2.2	2.3	12.0	37.8	1.5	44.3	47.2	41.6
Chinese Taipei	2003	408	86.7	0.0	0.0	7.2	1.8	4.3	0.0	0.0	86.7	85.8	87.6
	2007	574	57.5	0.6	24.9	4.2	1.9	5.3	5.6	0.0	83.0	85.2	80.8
Cyprus	2003	229	58.9	0.4	5.6	7.1	3.2	24.9	0.0	0.0	64.9	68.1	60.3
	2007	625	63.3	0.2	3.0	3.9	1.0	5.6	23.1	0.0	66.4	74.9	58.5
Egypt	2003	521	47.4	0.4	3.9	1.1	4.7	42.6	0.0	0.0	51.6	49.0	54.0
	2007	934	33.1	2.0	1.1	1.4	3.7	37.8	20.6	0.5	36.1	38.3	34.1
England	2003	189	72.3	0.0	0.0	9.0	1.7	16.9	0.0	0.0	72.3	68.3	77.8
	2007	589	71.4	0.0	0.0	4.5	1.4	16.0	6.4	0.3	71.4	72.3	70.4
Ghana	2003	220	24.5	0.2	10.2	2.4	5.7	57.0	0.0	0.0	34.9	31.2	38.1
	2007	755	26.4	0.0	2.7	6.8	4.0	29.7	27.9	2.5	29.1	26.7	31.0
Hong Kong SAR	2003	379	77.0	0.0	0.9	3.9	2.2	15.9	0.0	0.0	78.0	78.8	77.1
	2007	501	69.4	0.2	1.0	1.6	0.4	19.4	7.5	0.5	70.6	74.5	66.7
Hungary	2003	237	82.9	0.8	0.0	1.5	4.9	9.8	0.0	0.0	83.7	86.9	80.8
	2007	582	66.9	1.9	0.0	1.6	6.4	9.7	12.8	0.6	68.9	73.2	64.7
Indonesia	2003	381	82.5	0.5	0.4	0.9	1.1	14.6	0.0	0.0	83.4	85.8	81.0
	2007	606	69.9	1.9	1.2	1.9	2.4	11.8	10.3	0.6	73.0	74.1	72.0
Iran, Islamic Rep. of	2003	361	29.4	1.7	42.3	4.3	2.7	19.6	0.0	0.0	73.4	72.1	74.3
	2007	572	52.1	0.5	9.7	5.6	1.4	21.9	8.3	0.5	62.3	65.2	59.8
Israel	2003	268	63.8	1.3	1.9	3.2	3.8	26.1	0.0	0.0	66.9	62.6	71.0
	2007	460	37.3	1.7	1.6	4.7	3.6	20.2	30.3	0.6	40.6	42.7	38.3
Italy	2003	229	76.2	0.8	1.2	4.7	1.3	15.7	0.0	0.0	78.2	81.2	75.4
	2007	631	47.8	0.3	9.3	12.5	0.9	8.7	19.7	0.8	57.4	55.1	59.5
Japan	2003	364	51.1	0.7	25.3	13.3	0.6	9.0	0.0	0.0	77.1	73.8	80.3
	2007	609	63.9	0.0	3.2	10.3	0.6	14.3	7.3	0.4	67.1	67.0	67.2
Jordan	2003	293	51.7	4.9	16.8	1.8	2.3	22.6	0.0	0.0	73.3	75.1	71.5
	2007	743	59.1	1.1	6.0	1.7	1.5	19.2	10.9	0.5	66.2	73.0	60.1
Korea, Rep. of	2003	429	68.0	0.0	0.0	4.1	0.0	27.9	0.0	0.0	68.0	69.5	66.6
	2007	612	84.9	0.0	0.0	2.2	0.5	10.8	1.4	0.2	84.9	86.1	83.9
Lebanon	2003	180	72.0	0.8	5.9	6.2	2.9	12.2	0.0	0.0	78.7	78.4	79.3
	2007	533	35.7	0.1	9.7	1.3	1.3	17.4	31.4	2.9	45.6	44.8	46.5

V1 = Percent scoring 1 or better V2 = Percent scoring 2 or better
 Percent right for boys and girls corresponds to the percent obtaining the maximum score on the item.
 Because of missing gender information, some totals may appear inconsistent.

Science: Earth Science / Applying (S032516 - S01_06)
 Label: Effect of cutting down the trees
 Type: CR Key: -

COUNTRY	Year	N	10	11	19	70	71	79	OMIT TED	NOT REACH ED	V1	1.GIRL %Right	2.BOY %Right
Lithuania	2003	327	62.4	0.7	0.0	14.9	0.5	21.5	0.0	0.0	63.1	67.8	57.7
	2007	572	47.3	0.4	0.2	7.4	1.0	30.7	13.0	0.0	47.8	52.1	43.5
Malaysia	2003	405	81.8	0.5	0.7	5.1	0.8	11.1	0.0	0.0	83.0	88.4	78.2
	2007	643	53.1	0.5	7.8	5.3	1.6	21.1	10.2	0.4	61.3	65.4	56.9
Norway	2003	270	45.4	2.3	0.0	7.5	5.0	39.8	0.0	0.0	47.8	48.0	47.5
	2007	655	51.0	0.9	0.0	4.8	3.8	20.7	18.1	0.6	52.0	50.9	53.0
Palestinian Nat'l Auth.	2003	367	44.2	0.3	4.1	4.3	1.6	45.4	0.0	0.0	48.6	46.5	51.5
	2007	629	41.0	0.9	6.6	3.0	4.0	29.1	15.3	0.1	48.5	54.0	42.7
Romania	2003	252	78.7	0.4	5.7	2.7	2.5	10.1	0.0	0.0	84.7	88.1	81.1
	2007	604	54.3	0.0	0.2	1.1	1.8	21.7	20.7	0.2	54.6	56.1	53.2
Russian Federation	2003	332	80.3	1.5	0.4	5.1	0.0	12.8	0.0	0.0	82.2	84.3	79.9
	2007	642	78.1	0.2	0.1	3.0	0.2	6.8	11.1	0.6	78.4	82.8	73.8
Scotland	2003	250	64.6	1.4	0.0	9.4	3.8	20.8	0.0	0.0	65.9	61.7	71.4
	2007	574	63.0	0.9	0.0	4.7	4.8	14.2	11.8	0.5	64.0	60.9	67.1
Serbia	2003	231	49.4	1.1	13.1	5.0	16.9	14.6	0.0	0.0	63.6	59.7	66.9
	2007	579	43.2	2.1	3.5	1.6	4.4	9.4	35.7	0.0	48.8	46.4	51.1
Singapore	2003	460	74.3	0.0	0.0	12.8	2.5	10.4	0.0	0.0	74.3	72.0	76.7
	2007	654	68.7	0.3	0.2	3.9	7.4	14.0	5.6	0.0	69.2	70.5	68.0
Slovenia	2003	245	56.0	1.8	7.3	6.0	4.6	24.4	0.0	0.0	65.1	62.6	67.6
	2007	578	72.7	0.8	0.0	5.4	0.7	11.7	8.7	0.0	73.5	75.1	72.0
Sweden	2003	286	61.6	1.8	1.3	14.7	2.4	18.3	0.0	0.0	64.7	61.7	68.7
	2007	743	51.3	1.2	0.2	8.8	4.2	16.6	17.4	0.3	52.7	52.9	52.6
Tunisia	2003	384	66.8	0.5	5.2	4.2	0.5	22.8	0.0	0.0	72.5	73.7	71.0
	2007	581	63.0	2.8	3.6	2.0	2.2	20.3	6.0	0.1	69.4	65.2	73.9
United States	2003	671	70.4	0.9	0.1	7.2	6.0	15.4	0.0	0.0	71.4	72.1	70.4
	2007	1073	71.7	0.9	0.2	5.8	6.0	7.3	7.6	0.5	72.8	75.0	70.4
International Avg.	2003	317	61.9	1.0	6.0	5.8	3.2	22.2	0.0	0.0	68.8	68.7	68.9
	2007	627	55.7	0.9	3.4	4.4	2.6	17.5	15.0	0.6	60.0	62.0	58.1
Basque Country, Spain	2003	175	78.4	0.0	0.0	7.1	9.5	5.0	0.0	0.0	78.4	77.2	80.1
	2007	332	75.0	0.3	1.1	6.9	2.9	4.2	9.6	0.0	76.4	79.5	73.6
Ontario, Canada	2003	297	73.8	1.7	1.0	6.4	5.2	11.9	0.0	0.0	76.5	75.5	78.1
	2007	487	76.5	0.9	0.3	6.3	3.3	6.5	6.2	0.0	77.7	81.5	73.1
Quebec, Canada	2003	320	69.1	0.9	0.7	7.8	3.2	18.2	0.0	0.0	70.8	80.0	61.0
	2007	558	60.9	0.5	1.3	9.7	1.3	15.1	10.4	0.7	62.8	66.0	59.9

V1 = Percent scoring 1 or better V2 = Percent scoring 2 or better
 Percent right for boys and girls corresponds to the percent obtaining the maximum score on the item.
 Because of missing gender information, some totals may appear inconsistent.

Science: Biology / Reasoning (S032620 - S01_07)
 Label: Human population graphs
 Type: MC Key: A

COUNTRY	Year	N	DIFF	A	B	C	D	OMIT TED	NOT REACH ED	1.GIRL %Right	2.BOY %Right
Armenia	2003	453	38.4	38.4	23.0	21.5	17.1	0.0	0.0	37.3	39.6
	2007	618	45.8	45.8	13.5	16.4	11.9	11.8	0.5	39.8	51.4
Australia	2003	387	39.6	39.6	31.6	20.2	8.6	0.0	0.0	32.9	46.2
	2007	582	35.0	35.0	29.8	26.3	6.9	0.9	0.9	30.4	39.3
Bahrain	2003	305	18.1	18.1	28.3	41.0	12.6	0.0	0.0	16.0	20.3
	2007	606	20.6	20.6	34.1	30.3	11.8	2.4	0.9	17.8	23.2
Botswana	2003	426	18.6	18.6	36.7	26.8	17.9	0.0	0.0	14.5	23.0
	2007	601	20.5	20.5	37.3	22.7	17.4	1.1	0.9	20.7	20.4
Bulgaria	2003	288	28.2	28.2	13.4	34.7	23.7	0.0	0.0	31.4	25.6
	2007	439	37.1	37.1	17.4	21.0	19.0	3.9	1.7	32.1	41.7
Chinese Taipei	2003	438	42.5	42.5	17.5	31.9	8.1	0.0	0.0	41.0	43.9
	2007	574	45.2	45.2	10.9	32.7	11.2	0.0	0.0	41.5	48.8
Cyprus	2003	319	31.3	31.3	22.1	26.7	19.9	0.0	0.0	29.0	33.8
	2007	625	26.7	26.7	24.9	26.3	21.0	1.1	0.0	20.5	32.5
Egypt	2003	567	17.2	17.2	43.2	25.9	13.8	0.0	0.0	16.2	18.0
	2007	927	17.4	17.4	41.9	24.8	13.1	2.4	0.4	18.0	16.8
England	2003	212	44.4	44.4	28.8	22.4	4.4	0.0	0.0	41.2	48.1
	2007	589	46.5	46.5	23.8	21.8	5.7	1.9	0.3	40.7	52.7
Ghana	2003	389	27.2	27.2	28.7	24.5	19.6	0.0	0.0	28.4	26.0
	2007	755	20.7	20.7	28.6	23.2	20.2	4.5	2.8	18.2	22.6
Hong Kong SAR	2003	409	37.3	37.3	22.4	34.9	5.4	0.0	0.0	30.3	44.3
	2007	501	35.4	35.4	23.3	32.7	7.9	0.2	0.5	31.5	39.1
Hungary	2003	263	34.7	34.7	18.1	28.4	18.8	0.0	0.0	27.8	40.9
	2007	582	36.8	36.8	18.3	27.7	15.4	1.1	0.6	32.0	41.6
Indonesia	2003	461	28.1	28.1	40.7	19.1	12.0	0.0	0.0	25.9	30.3
	2007	606	29.9	29.9	25.5	26.0	14.6	3.4	0.6	32.6	27.3
Iran, Islamic Rep. of	2003	394	31.8	31.8	16.1	33.0	19.1	0.0	0.0	30.8	32.4
	2007	572	33.7	33.7	22.8	24.9	16.4	1.8	0.5	33.7	33.7
Israel	2003	348	37.2	37.2	28.2	25.0	9.5	0.0	0.0	39.4	35.0
	2007	460	29.4	29.4	36.0	21.8	8.6	3.6	0.6	24.9	34.3
Italy	2003	320	42.6	42.6	19.8	25.3	12.3	0.0	0.0	44.7	40.6
	2007	630	46.7	46.7	12.5	26.3	12.2	1.4	1.0	51.1	42.6
Japan	2003	395	40.1	40.1	13.2	34.1	12.6	0.0	0.0	32.5	47.1
	2007	609	39.7	39.7	11.4	35.1	12.7	0.7	0.4	33.9	46.0
Jordan	2003	345	18.7	18.7	41.4	29.0	10.9	0.0	0.0	18.3	19.1
	2007	743	21.6	21.6	52.4	18.4	5.9	1.2	0.5	17.8	25.1
Korea, Rep. of	2003	443	33.2	33.2	21.0	34.1	11.6	0.0	0.0	30.5	35.8
	2007	612	28.9	28.9	18.8	37.6	14.3	0.2	0.2	26.1	31.3
Lebanon	2003	282	17.0	17.0	34.9	30.5	17.6	0.0	0.0	16.9	17.1
	2007	530	22.5	22.5	27.6	29.3	13.3	4.3	3.0	24.6	20.0

DIFF = Percent correct
 Because of missing gender information, some totals may appear inconsistent.

Science: Biology / Reasoning (S032620 - S01_07)
 Label: Human population graphs
 Type: MC Key: A

COUNTRY	Year	N	DIFF	A	B	C	D	OMIT TED	NOT REACH ED	1.GIRL %Right	2.BOY %Right
Lithuania	2003	371	32.4	32.4	18.2	29.0	20.5	0.0	0.0	32.6	32.1
	2007	572	49.4	49.4	14.2	21.9	13.8	0.6	0.0	47.7	51.2
Malaysia	2003	432	27.8	27.8	39.2	29.4	3.6	0.0	0.0	23.7	31.5
	2007	643	26.1	26.1	35.1	31.0	6.6	0.8	0.4	27.1	25.1
Norway	2003	326	33.0	33.0	26.1	31.0	9.9	0.0	0.0	32.6	33.4
	2007	655	35.5	35.5	23.9	26.7	11.7	1.5	0.6	33.6	37.5
Palestinian Nat'l Auth.	2003	428	18.7	18.7	45.4	23.3	12.6	0.0	0.0	18.4	19.2
	2007	629	17.0	17.0	47.8	20.0	12.9	2.1	0.1	15.4	18.7
Romania	2003	321	26.3	26.3	19.0	30.6	24.1	0.0	0.0	22.7	30.1
	2007	603	26.0	26.0	25.3	22.5	23.9	2.0	0.2	23.8	28.1
Russian Federation	2003	376	28.3	28.3	20.9	27.8	23.0	0.0	0.0	32.6	24.1
	2007	642	44.7	44.7	14.7	22.7	15.1	2.3	0.6	42.8	46.7
Scotland	2003	288	38.8	38.8	29.9	22.1	9.2	0.0	0.0	38.7	38.8
	2007	574	33.1	33.1	25.8	32.0	8.1	0.5	0.5	33.7	32.4
Serbia	2003	335	32.9	32.9	25.4	21.5	20.2	0.0	0.0	29.6	35.6
	2007	574	33.0	33.0	19.0	25.9	18.0	4.1	0.0	32.0	33.9
Singapore	2003	497	51.3	51.3	26.2	19.1	3.3	0.0	0.0	45.8	57.0
	2007	654	42.7	42.7	27.6	23.4	6.0	0.2	0.0	39.2	45.9
Slovenia	2003	278	29.2	29.2	27.1	26.8	16.9	0.0	0.0	26.0	32.0
	2007	578	40.2	40.2	15.0	22.0	21.5	1.3	0.0	31.3	47.9
Sweden	2003	352	35.3	35.3	27.8	28.0	8.9	0.0	0.0	30.4	41.8
	2007	743	35.7	35.7	26.1	28.0	8.6	1.3	0.3	32.9	38.4
Tunisia	2003	378	16.9	16.9	28.2	34.0	20.9	0.0	0.0	13.7	20.7
	2007	581	21.9	21.9	25.0	36.5	13.0	3.5	0.1	17.2	27.1
United States	2003	737	36.8	36.8	38.9	19.7	4.6	0.0	0.0	31.3	43.5
	2007	1073	39.5	39.5	37.4	17.5	4.4	0.6	0.6	34.8	44.6
International Avg.	2003	381	31.3	31.3	27.3	27.6	13.7	0.0	0.0	29.2	33.5
	2007	627	32.9	32.9	25.7	25.9	12.8	2.1	0.6	30.3	35.4
Basque Country, Spain	2003	202	27.4	27.4	25.2	34.5	12.9	0.0	0.0	25.6	30.0
	2007	332	33.6	33.6	21.9	28.1	15.3	1.1	0.0	26.2	40.2
Ontario, Canada	2003	331	36.9	36.9	32.8	25.0	5.3	0.0	0.0	31.9	44.5
	2007	487	43.0	43.0	28.8	22.1	5.0	1.1	0.0	36.8	50.4
Quebec, Canada	2003	353	39.6	39.6	31.6	23.7	5.1	0.0	0.0	35.1	44.2
	2007	558	38.6	38.6	30.7	25.5	3.3	1.2	0.7	34.7	42.0

DIFF = Percent correct
 Because of missing gender information, some totals may appear inconsistent.

Science: Biology / Reasoning (S032693A - S01_08A)
 Label: Complete the food web
 Type: CR Key: -

COUNTRY	Year	N	10	70	79	OMIT TED	NOT REACH ED	V1	1.GIRL %Right	2.BOY %Right
Armenia	2003	120	30.6	11.4	57.9	0.0	0.0	30.6	29.1	32.7
	2007	622	27.8	2.6	41.8	27.1	0.8	27.8	30.1	25.6
Australia	2003	364	68.7	4.6	26.7	0.0	0.0	68.7	64.9	72.3
	2007	582	67.4	7.0	21.7	2.7	1.1	67.4	63.5	71.0
Bahrain	2003	303	25.6	18.8	55.6	0.0	0.0	25.6	29.9	20.4
	2007	606	29.0	13.9	50.6	5.5	1.0	29.0	38.5	20.0
Botswana	2003	382	25.1	13.0	61.9	0.0	0.0	25.1	22.2	28.5
	2007	602	28.7	10.5	50.8	8.5	1.4	28.7	32.1	25.1
Bulgaria	2003	241	48.4	11.4	40.2	0.0	0.0	48.4	41.9	54.7
	2007	439	40.2	3.2	31.2	23.8	1.7	40.2	45.6	35.3
Chinese Taipei	2003	428	75.8	18.3	5.9	0.0	0.0	75.8	77.4	74.2
	2007	574	69.4	3.4	24.0	3.3	0.0	69.4	66.3	72.5
Cyprus	2003	279	41.6	9.3	49.2	0.0	0.0	41.6	43.8	38.4
	2007	625	40.9	8.0	40.7	10.5	0.0	40.9	43.4	38.5
Egypt	2003	551	16.4	13.1	70.5	0.0	0.0	16.4	16.0	16.8
	2007	935	14.9	11.6	66.1	6.9	0.5	14.9	16.1	13.8
England	2003	211	68.7	5.8	25.5	0.0	0.0	68.7	67.9	69.7
	2007	589	70.3	2.7	25.7	1.1	0.3	70.3	69.2	71.4
Ghana	2003	285	17.6	21.5	60.9	0.0	0.0	17.6	14.4	20.3
	2007	755	12.4	9.6	55.8	19.1	3.1	12.4	12.1	12.6
Hong Kong SAR	2003	394	67.1	2.9	30.0	0.0	0.0	67.1	63.0	71.3
	2007	501	62.6	4.9	27.6	4.3	0.5	62.6	63.3	62.0
Hungary	2003	255	62.2	14.0	23.9	0.0	0.0	62.2	60.9	63.3
	2007	582	61.8	6.7	26.3	4.2	1.0	61.8	62.5	61.1
Indonesia	2003	411	41.7	11.4	46.9	0.0	0.0	41.7	40.9	42.5
	2007	606	33.1	11.2	47.3	7.4	0.9	33.1	32.9	33.3
Iran, Islamic Rep. of	2003	372	31.4	9.7	59.0	0.0	0.0	31.4	37.3	27.2
	2007	571	30.8	9.1	52.9	6.7	0.5	30.8	31.0	30.6
Israel	2003	316	59.0	7.8	33.2	0.0	0.0	59.0	60.4	57.5
	2007	460	45.4	8.5	32.5	12.6	1.0	45.4	49.2	41.3
Italy	2003	306	59.9	8.6	31.4	0.0	0.0	59.9	63.0	57.0
	2007	631	55.0	1.6	35.8	6.6	1.0	55.0	56.3	53.9
Japan	2003	390	75.8	7.9	16.3	0.0	0.0	75.8	73.7	77.7
	2007	610	72.1	5.8	19.0	2.5	0.6	72.1	70.3	74.0
Jordan	2003	332	28.4	18.2	53.4	0.0	0.0	28.4	31.8	24.9
	2007	743	30.3	6.9	59.2	3.0	0.5	30.3	34.9	26.2
Korea, Rep. of	2003	431	68.2	8.4	23.4	0.0	0.0	68.2	65.4	70.9
	2007	612	76.2	4.7	18.1	0.8	0.2	76.2	74.2	78.0
Lebanon	2003	250	37.7	22.4	39.9	0.0	0.0	37.7	39.1	35.4
	2007	532	33.3	5.6	48.1	10.1	3.0	33.3	31.1	35.9

V1 = Percent scoring 1 or better V2 = Percent scoring 2 or better
 Percent right for boys and girls corresponds to the percent obtaining the maximum score on the item.
 Because of missing gender information, some totals may appear inconsistent.

Science: Biology / Reasoning (S032693A - S01_08A)
 Label: Complete the food web
 Type: CR Key: -

COUNTRY	Year	N	10	70	79	OMIT TED	NOT REACH ED	V1	1.GIRL %Right	2.BOY %Right
Lithuania	2003	356	52.1	13.1	34.8	0.0	0.0	52.1	50.9	53.4
	2007	572	49.7	13.0	31.3	5.9	0.1	49.7	49.3	50.2
Malaysia	2003	427	77.5	2.4	20.1	0.0	0.0	77.5	72.7	81.9
	2007	643	69.4	3.4	24.6	1.9	0.6	69.4	70.0	68.7
Norway	2003	310	54.7	8.8	36.5	0.0	0.0	54.7	51.5	58.4
	2007	655	48.9	7.1	39.1	4.3	0.6	48.9	47.5	50.4
Palestinian Nat'l Auth.	2003	418	17.8	10.6	71.5	0.0	0.0	17.8	17.6	18.2
	2007	628	20.2	11.0	65.5	3.3	0.1	20.2	21.8	18.4
Romania	2003	287	43.4	37.6	19.0	0.0	0.0	43.4	50.5	35.8
	2007	604	37.9	5.2	47.9	8.8	0.2	37.9	39.4	36.6
Russian Federation	2003	360	55.5	13.1	31.4	0.0	0.0	55.5	59.7	51.0
	2007	642	55.0	12.8	27.4	4.3	0.6	55.0	52.9	57.2
Scotland	2003	282	61.4	8.9	29.7	0.0	0.0	61.4	60.3	62.7
	2007	574	57.3	10.2	29.2	2.9	0.5	57.3	52.9	61.8
Serbia	2003	294	41.8	15.1	43.2	0.0	0.0	41.8	46.2	37.7
	2007	579	42.3	9.2	35.5	13.0	0.0	42.3	40.8	43.7
Singapore	2003	489	86.1	2.5	11.4	0.0	0.0	86.1	85.1	87.2
	2007	654	83.8	2.3	12.5	1.4	0.0	83.8	82.9	84.5
Slovenia	2003	262	52.9	11.4	35.7	0.0	0.0	52.9	57.3	48.7
	2007	578	59.3	11.0	27.7	2.0	0.0	59.3	60.1	58.7
Sweden	2003	339	66.2	7.6	26.2	0.0	0.0	66.2	68.9	62.5
	2007	743	60.7	7.8	23.7	7.6	0.3	60.7	57.4	63.9
Tunisia	2003	387	29.2	24.6	46.2	0.0	0.0	29.2	28.0	30.7
	2007	581	28.8	14.7	52.0	4.2	0.4	28.8	24.7	33.2
United States	2003	710	58.6	8.6	32.8	0.0	0.0	58.6	55.0	63.2
	2007	1073	57.1	6.6	33.2	2.5	0.7	57.1	53.5	61.0
International Avg.	2003	350	49.9	12.2	37.9	0.0	0.0	49.9	49.9	49.9
	2007	627	47.6	7.6	37.1	6.9	0.7	47.6	47.8	47.6
Basque Country, Spain	2003	192	57.1	13.8	29.1	0.0	0.0	57.1	53.6	61.9
	2007	332	54.8	11.1	28.6	5.5	0.0	54.8	55.5	54.2
Ontario, Canada	2003	325	58.8	9.4	31.9	0.0	0.0	58.8	54.5	65.6
	2007	487	64.8	7.9	24.8	2.5	0.0	64.8	64.6	65.0
Quebec, Canada	2003	349	73.8	4.6	21.6	0.0	0.0	73.8	71.5	76.1
	2007	558	67.0	8.1	21.1	2.7	1.1	67.0	70.7	63.9

V1 = Percent scoring 1 or better V2 = Percent scoring 2 or better
 Percent right for boys and girls corresponds to the percent obtaining the maximum score on the item.
 Because of missing gender information, some totals may appear inconsistent.

Science: Biology / Reasoning (S032693B - S01_08B)
 Label: Sharks when tuna becomes scarce
 Type: CR Key: -

COUNTRY	Year	N	10	11	19	70	71	79	OMIT TED	NOT REACH ED	V1	1.GIRL %Right	2.BOY %Right
Armenia	2003	74	69.3	3.5	3.7	12.6	0.0	10.9	0.0	0.0	76.5	81.2	72.6
	2007	621	29.2	6.1	6.4	0.5	0.2	24.1	31.0	2.5	41.7	40.3	43.0
Australia	2003	341	55.0	11.7	3.1	3.0	7.6	19.5	0.0	0.0	69.9	71.8	68.2
	2007	582	51.3	18.4	3.3	0.8	2.6	13.5	7.8	2.2	73.0	72.4	73.6
Bahrain	2003	249	34.2	5.7	4.9	9.3	16.1	29.8	0.0	0.0	44.8	46.4	42.5
	2007	606	35.6	13.7	7.2	1.9	12.0	15.0	12.8	1.8	56.5	72.4	41.5
Botswana	2003	296	19.3	1.6	1.3	4.5	4.2	69.2	0.0	0.0	22.1	19.7	24.9
	2007	602	17.1	1.9	1.2	7.2	1.1	46.6	18.8	6.1	20.3	24.5	15.8
Bulgaria	2003	156	41.0	5.1	0.5	6.8	3.3	43.2	0.0	0.0	46.6	44.0	48.8
	2007	439	27.1	3.5	1.2	2.1	2.4	10.2	43.2	10.4	31.7	34.1	29.5
Chinese Taipei	2003	399	65.3	12.9	6.9	2.4	1.0	11.4	0.0	0.0	85.1	87.2	83.1
	2007	574	53.8	21.4	3.3	0.4	3.4	11.5	5.7	0.5	78.5	78.3	78.8
Cyprus	2003	200	41.2	10.2	3.2	3.9	18.8	22.7	0.0	0.0	54.7	54.2	55.3
	2007	625	10.2	38.4	0.1	4.8	3.6	13.9	25.8	3.3	48.6	49.8	47.6
Egypt	2003	508	23.5	10.4	0.5	12.4	9.9	43.3	0.0	0.0	34.4	34.0	34.7
	2007	935	25.1	5.0	0.1	7.4	6.7	35.9	17.3	2.5	30.2	30.2	30.2
England	2003	200	64.3	22.9	1.7	1.4	1.1	8.5	0.0	0.0	89.0	86.7	91.9
	2007	589	52.0	23.2	9.1	1.3	1.0	8.1	4.9	0.4	84.3	86.4	82.0
Ghana	2003	110	12.8	4.9	6.5	3.3	0.4	72.1	0.0	0.0	24.2	14.7	32.0
	2007	755	11.4	1.0	0.0	1.6	0.2	18.5	58.2	9.1	12.4	10.2	14.2
Hong Kong SAR	2003	381	65.6	10.9	1.5	5.5	2.7	13.8	0.0	0.0	78.0	78.2	77.8
	2007	501	65.9	5.3	1.3	3.8	7.3	7.8	7.2	1.4	72.5	74.6	70.5
Hungary	2003	249	45.1	31.0	0.0	0.4	13.7	9.8	0.0	0.0	76.0	77.4	74.8
	2007	582	35.7	22.0	4.8	0.3	23.3	5.0	6.5	2.2	62.6	67.5	57.7
Indonesia	2003	327	41.1	5.6	2.0	7.3	9.2	34.8	0.0	0.0	48.7	52.6	44.8
	2007	606	26.6	7.5	1.0	5.4	8.2	30.2	17.3	3.7	35.1	37.6	32.7
Iran, Islamic Rep. of	2003	307	23.0	1.8	31.3	20.0	4.2	19.7	0.0	0.0	56.1	53.5	58.1
	2007	571	39.6	4.7	3.0	1.4	2.2	26.4	21.0	1.7	47.3	49.3	45.7
Israel	2003	289	43.8	14.9	7.4	2.4	8.8	22.7	0.0	0.0	66.2	58.0	74.5
	2007	460	38.4	11.0	2.0	1.4	10.5	14.3	16.8	5.6	51.4	56.3	46.2
Italy	2003	230	44.6	23.6	11.4	0.0	0.7	19.7	0.0	0.0	79.6	83.5	75.8
	2007	631	37.4	5.2	9.7	0.4	2.1	17.0	25.1	3.1	52.3	52.3	52.3
Japan	2003	369	81.5	5.0	1.2	9.5	0.6	2.1	0.0	0.0	87.8	84.1	91.1
	2007	610	77.0	4.7	0.6	5.0	0.4	7.7	3.2	1.5	82.2	83.4	80.8
Jordan	2003	294	13.3	40.6	5.6	8.3	5.0	27.1	0.0	0.0	59.5	61.6	57.1
	2007	742	37.4	11.8	2.5	7.5	8.9	22.8	7.9	1.0	51.7	59.7	44.6
Korea, Rep. of	2003	400	53.9	3.0	9.2	2.0	1.8	30.0	0.0	0.0	66.2	60.1	72.0
	2007	612	62.6	7.1	3.8	1.1	0.1	20.8	4.1	0.3	73.6	69.8	76.9
Lebanon	2003	133	39.3	7.7	3.0	5.1	4.6	40.2	0.0	0.0	50.0	50.6	49.1
	2007	533	19.0	7.2	2.5	1.9	5.7	20.8	37.9	5.0	28.7	25.1	33.1

V1 = Percent scoring 1 or better V2 = Percent scoring 2 or better
 Percent right for boys and girls corresponds to the percent obtaining the maximum score on the item.
 Because of missing gender information, some totals may appear inconsistent.

Science: Biology / Reasoning (S032693B - S01_08B)
 Label: Sharks when tuna becomes scarce
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COUNTRY	Year	N	10	11	19	70	71	79	OMIT TED	NOT REACH ED	V1	1.GIRL %Right	2.BOY %Right
Lithuania	2003	329	54.3	6.6	0.0	3.6	26.9	8.5	0.0	0.0	61.0	63.5	58.0
	2007	572	59.7	9.0	0.6	1.1	5.3	10.4	12.8	1.1	69.3	70.8	67.8
Malaysia	2003	411	51.6	23.4	4.4	6.0	2.5	12.1	0.0	0.0	79.4	82.4	76.6
	2007	643	42.0	18.5	3.6	4.8	6.2	14.6	8.6	1.9	64.0	68.9	58.7
Norway	2003	254	31.2	6.2	0.2	5.2	17.8	39.3	0.0	0.0	37.6	30.0	46.1
	2007	655	32.6	6.0	1.2	5.3	7.7	29.8	15.8	1.6	39.8	36.9	42.7
Palestinian Nat'l Auth.	2003	344	31.0	6.2	2.6	5.5	9.3	45.4	0.0	0.0	39.8	40.7	38.5
	2007	629	22.0	6.3	4.3	4.5	5.6	40.5	16.1	0.7	32.6	38.7	26.1
Romania	2003	222	47.3	6.9	3.1	2.8	15.8	24.1	0.0	0.0	57.3	61.8	52.8
	2007	604	41.0	3.5	0.4	1.1	12.7	13.3	26.7	1.4	44.9	49.9	40.3
Russian Federation	2003	310	67.5	16.3	3.7	1.9	3.3	7.2	0.0	0.0	87.6	87.6	87.6
	2007	642	61.6	11.9	3.5	0.9	2.3	4.8	12.8	2.2	77.0	79.6	74.2
Scotland	2003	257	60.4	20.5	1.6	2.6	4.6	10.3	0.0	0.0	82.4	77.5	89.1
	2007	574	55.6	15.1	1.8	3.4	3.3	10.7	8.4	1.7	72.4	70.9	74.0
Serbia	2003	213	42.1	6.6	2.0	12.0	19.5	17.7	0.0	0.0	50.7	51.4	50.1
	2007	579	27.9	6.0	3.3	1.9	12.3	11.9	34.1	2.6	37.2	35.9	38.5
Singapore	2003	475	46.1	39.3	1.5	3.1	0.6	9.5	0.0	0.0	86.8	88.0	85.6
	2007	654	45.8	33.5	1.6	2.7	2.2	9.7	3.9	0.5	80.8	84.2	77.9
Slovenia	2003	578	60.0	14.9	1.7	1.6	6.6	12.6	2.5	0.1	76.6	83.0	71.0
Sweden	2003	303	48.7	23.4	2.4	4.2	2.6	18.8	0.0	0.0	74.4	78.1	69.3
	2007	743	37.1	20.4	5.0	2.4	8.1	11.4	13.9	1.7	62.5	64.9	60.2
Tunisia	2003	344	37.7	7.2	2.0	7.4	19.9	25.8	0.0	0.0	46.9	46.9	47.0
	2007	579	22.9	6.4	1.8	3.2	38.0	17.7	8.1	1.8	31.1	29.9	32.5
United States	2003	682	56.8	23.7	1.4	3.7	1.8	12.6	0.0	0.0	81.9	78.7	86.1
	2007	1073	56.6	19.3	3.9	1.5	2.9	10.0	4.4	1.5	79.7	79.7	79.8
International Avg.	2003	302	45.4	13.1	4.1	5.6	7.5	24.4	0.0	0.0	62.5	62.1	63.0
	2007	627	39.9	11.8	2.9	2.8	6.5	17.2	16.4	2.5	54.6	56.6	52.7
Basque Country, Spain	2003	164	49.6	19.0	5.9	3.8	4.5	17.1	0.0	0.0	74.5	83.8	62.6
	2007	332	46.5	16.7	7.7	0.4	1.9	15.6	10.1	1.2	70.8	70.5	71.0
Ontario, Canada	2003	304	51.8	29.2	2.0	3.4	5.7	7.9	0.0	0.0	83.0	82.8	83.2
	2007	487	53.7	25.9	1.3	2.6	5.4	6.8	4.0	0.2	80.9	82.1	79.4
Quebec, Canada	2003	337	51.8	23.3	7.7	1.4	5.5	10.3	0.0	0.0	82.7	81.2	84.4
	2007	558	38.7	23.7	1.7	1.3	16.2	11.2	5.3	1.8	64.2	70.7	58.5

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 Percent right for boys and girls corresponds to the percent obtaining the maximum score on the item.
 Because of missing gender information, some totals may appear inconsistent.

Science: Biology / Reasoning (S032695 - S01_09)
 Label: How organism survives low tide
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COUNTRY	Year	N	20	29	10	19	70	79	OMIT TED	NOT REACH ED	V1	V2	1.GIRL %Right	2.BOY %Right
Armenia	2003	38	16.8	0.0	24.4	3.3	15.2	40.4	0.0	0.0	44.4	16.8	18.5	14.3
	2007	622	7.8	4.3	14.6	2.2	2.1	19.1	47.1	2.8	28.9	12.1	11.5	12.6
Australia	2003	329	58.5	0.0	12.4	0.6	22.0	6.7	0.0	0.0	71.4	58.5	59.3	57.6
	2007	582	43.6	0.0	23.9	0.6	12.7	5.8	9.3	4.1	68.1	43.6	45.5	41.9
Bahrain	2003	266	8.6	1.2	12.5	5.8	47.5	24.5	0.0	0.0	28.0	9.7	12.7	5.8
	2007	606	16.3	3.9	6.1	5.0	37.8	16.7	10.4	3.8	31.4	20.2	25.5	15.2
Botswana	2003	372	0.5	0.9	1.2	0.5	45.7	51.2	0.0	0.0	3.1	1.4	2.3	0.5
	2007	599	2.2	0.2	2.1	0.0	34.8	40.0	12.2	8.5	4.5	2.4	2.4	2.4
Bulgaria	2003	138	18.3	0.0	33.0	0.9	18.1	29.7	0.0	0.0	52.2	18.3	18.3	18.3
	2007	439	9.4	0.0	11.2	1.3	20.0	5.2	34.3	18.5	21.9	9.4	10.0	8.7
Chinese Taipei	2003	371	27.9	0.3	25.2	2.9	40.1	3.5	0.0	0.0	56.4	28.3	27.0	29.5
	2007	574	36.7	0.3	15.2	0.0	26.2	6.5	13.5	1.6	52.3	37.0	38.8	35.3
Cyprus	2003	188	26.7	0.0	19.5	0.5	39.3	13.9	0.0	0.0	46.8	26.7	34.1	16.3
	2007	625	10.0	1.7	13.6	0.8	32.8	8.9	23.5	8.7	26.1	11.8	12.4	11.2
Egypt	2003	524	5.8	0.1	6.9	0.6	55.8	30.8	0.0	0.0	13.4	5.9	4.5	7.2
	2007	934	1.0	0.0	2.2	0.0	55.6	23.8	12.8	4.7	3.1	1.0	1.3	0.6
England	2003	177	40.5	0.0	22.9	1.8	30.3	4.5	0.0	0.0	65.2	40.5	39.6	41.7
	2007	589	38.7	0.0	24.4	0.0	24.1	3.3	8.7	0.8	63.1	38.7	37.8	39.6
Ghana	2003	223	0.3	1.6	10.2	2.5	28.7	56.7	0.0	0.0	14.6	1.9	2.0	1.8
	2007	755	0.8	0.0	4.1	0.0	30.7	31.2	18.1	15.1	4.9	0.8	0.6	1.1
Hong Kong SAR	2003	358	33.3	0.6	31.4	2.1	30.5	2.1	0.0	0.0	67.4	33.9	37.0	30.6
	2007	501	31.3	0.2	27.9	0.0	20.3	9.2	8.3	2.9	59.4	31.4	35.7	27.3
Hungary	2003	228	39.2	0.0	39.9	0.3	19.5	1.0	0.0	0.0	79.5	39.2	39.3	39.2
	2007	582	34.7	0.0	29.8	0.0	21.2	2.4	9.6	2.3	64.5	34.7	39.8	29.7
Indonesia	2003	338	10.0	0.0	29.0	2.6	18.1	40.3	0.0	0.0	41.6	10.0	9.3	10.6
	2007	606	12.1	0.6	20.5	1.1	20.2	29.8	10.4	5.3	34.2	12.7	11.9	13.4
Iran, Islamic Rep. of	2003	268	10.9	2.4	7.9	4.6	42.0	32.3	0.0	0.0	25.7	13.3	13.2	13.3
	2007	572	13.7	0.0	21.0	1.3	35.5	7.4	16.9	4.2	36.0	13.7	18.4	9.8
Israel	2003	253	31.0	0.0	28.5	0.0	31.1	9.4	0.0	0.0	59.5	31.0	29.5	32.5
	2007	460	17.2	0.7	25.7	0.9	23.0	8.9	16.0	7.7	44.4	17.9	24.1	11.1
Italy	2003	218	44.4	0.0	26.4	2.5	18.1	8.6	0.0	0.0	73.4	44.4	46.3	42.3
	2007	631	19.1	0.1	37.2	1.8	11.7	5.6	18.5	6.0	58.2	19.2	23.4	15.2
Japan	2003	339	48.8	0.0	31.8	3.6	14.3	1.4	0.0	0.0	84.3	48.8	49.7	48.0
	2007	610	44.8	0.9	22.8	2.1	13.4	2.7	11.1	2.3	70.6	45.7	47.8	43.4
Jordan	2003	288	10.1	2.5	20.2	0.3	43.2	23.6	0.0	0.0	33.1	12.7	16.1	9.0
	2007	742	19.0	0.4	7.9	1.1	40.3	22.4	7.4	1.4	28.5	19.5	22.9	16.3
Korea, Rep. of	2003	398	48.2	2.1	40.1	0.3	7.3	1.9	0.0	0.0	90.8	50.4	50.6	50.2
	2007	612	35.5	0.0	34.4	0.0	18.6	5.3	5.5	0.8	69.8	35.5	35.8	35.2
Lebanon	2003	142	1.6	0.0	16.8	0.3	44.8	36.5	0.0	0.0	18.7	1.6	0.9	2.8
	2007	533	3.6	0.8	5.8	0.9	22.1	24.2	29.1	13.5	11.1	4.4	4.9	3.8

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COUNTRY	Year	N	20	29	10	19	70	79	OMIT TED	NOT REACH ED	V1	V2	1.GIRL %Right	2.BOY %Right
Lithuania	2003													
	2007	572	32.1	0.1	36.8	0.0	13.5	2.2	12.1	3.2	69.0	32.2	35.7	28.7
Malaysia	2003	386	19.7	0.9	27.5	1.5	42.5	7.8	0.0	0.0	49.7	20.6	20.6	20.6
	2007	643	10.6	0.4	14.4	1.1	21.4	34.2	13.8	4.0	26.5	11.0	11.5	10.4
Norway	2003	283	32.0	0.0	39.2	0.0	18.3	10.5	0.0	0.0	71.2	32.0	35.7	27.9
	2007	655	26.0	0.0	28.9	0.0	19.2	8.9	13.5	3.5	54.9	26.0	32.3	19.5
Palestinian Nat'l Auth.	2003	381	8.1	0.9	6.0	1.0	54.2	29.8	0.0	0.0	16.0	9.0	11.6	5.5
	2007	629	6.5	1.2	5.8	4.6	42.6	29.2	7.1	3.1	18.0	7.7	10.9	4.2
Romania	2003	207	21.0	1.0	32.1	1.0	33.2	11.7	0.0	0.0	55.1	22.0	23.2	20.7
	2007	604	11.7	0.0	16.9	2.2	29.1	11.4	23.0	5.7	30.8	11.7	13.6	9.9
Russian Federation	2003	299	38.8	1.2	16.6	2.3	35.2	5.8	0.0	0.0	58.9	40.0	44.2	36.4
	2007	642	32.3	0.0	25.6	0.5	14.3	5.2	16.4	5.8	58.3	32.3	35.9	28.5
Scotland	2003	239	33.7	0.0	38.6	0.7	21.4	5.6	0.0	0.0	73.0	33.7	31.1	37.2
	2007	574	23.6	0.0	29.4	0.0	22.8	7.0	15.0	2.2	53.0	23.6	22.5	24.7
Serbia	2003	222	15.6	1.1	29.5	0.4	42.7	10.7	0.0	0.0	46.6	16.7	17.0	16.4
	2007	579	24.5	0.2	17.9	1.6	12.6	6.3	27.2	9.8	44.1	24.7	24.8	24.5
Singapore	2003	451	36.2	0.0	22.4	0.0	34.5	7.0	0.0	0.0	58.5	36.2	32.1	40.6
	2007	654	37.5	0.6	15.9	0.3	31.3	6.3	7.0	1.1	54.3	38.1	39.9	36.6
Slovenia	2003													
	2007	578	27.7	0.0	29.3	0.5	30.6	4.5	7.1	0.3	57.5	27.7	32.8	23.4
Sweden	2003	266	30.9	0.0	28.0	0.0	28.6	12.6	0.0	0.0	58.9	30.9	34.3	25.5
	2007	743	32.2	0.0	24.5	0.3	9.6	8.5	21.4	3.4	57.1	32.3	38.3	26.5
Tunisia	2003	315	2.8	0.0	27.2	0.0	48.5	21.5	0.0	0.0	30.0	2.8	2.9	2.7
	2007	580	11.4	1.2	14.0	0.6	52.1	6.7	10.0	4.1	27.1	12.5	11.7	13.4
United States	2003	659	42.4	0.0	22.3	4.9	24.3	6.2	0.0	0.0	69.6	42.4	44.3	40.0
	2007	1073	46.8	0.2	24.1	0.6	18.3	3.8	4.4	1.9	71.6	47.0	46.8	47.2
International Avg.	2003	296	24.6	0.5	23.5	1.5	32.1	17.7	0.0	0.0	50.2	25.1	26.0	24.0
	2007	627	21.8	0.5	19.2	1.0	24.9	12.5	15.2	4.9	42.5	22.4	24.5	20.3
Basque Country, Spain	2003	144	24.8	0.0	27.5	0.0	29.7	18.0	0.0	0.0	52.3	24.8	26.3	22.6
	2007	332	25.7	0.6	30.4	0.0	9.4	7.8	22.5	3.6	56.7	26.3	27.3	25.3
Ontario, Canada	2003	274	46.4	0.1	21.8	0.0	26.6	5.0	0.0	0.0	68.3	46.5	51.2	39.3
	2007	487	48.0	0.0	17.2	0.0	23.8	3.6	6.4	1.0	65.2	48.0	54.7	40.1
Quebec, Canada	2003	311	42.3	0.5	32.3	1.2	16.1	7.6	0.0	0.0	76.3	42.8	45.9	39.4
	2007	558	31.2	0.6	19.8	0.0	18.8	12.3	14.8	2.6	51.5	31.8	37.1	27.1

V1 = Percent scoring 1 or better V2 = Percent scoring 2 or better
 Percent right for boys and girls corresponds to the percent obtaining the maximum score on the item.
 Because of missing gender information, some totals may appear inconsistent.

Science: Biology / Applying (S032697A - S01_10A)
 Label: At the bottom of ocean
 Type: CR Key: -

COUNTRY	Year	N	10	11	12	13	19	70	71	79	OMIT TED	NOT REACH ED	V1	1.GIRL %Right	2.BOY %Right
Armenia	2003	84	18.0	1.1	21.0	0.0	6.5	35.4	0.9	17.1	0.0	0.0	46.7	45.3	48.0
	2007	622	20.2	2.6	14.6	2.0	1.7	5.3	0.1	21.2	27.4	4.9	41.1	40.4	41.8
Australia	2003	314	40.3	11.5	7.1	4.4	1.4	3.7	7.3	24.4	0.0	0.0	64.6	59.1	69.8
	2007	582	37.4	8.6	8.3	3.2	0.0	2.7	6.0	17.3	10.6	6.0	57.5	48.6	65.6
Bahrain	2003	237	11.2	1.7	6.4	6.0	3.3	4.2	14.3	52.9	0.0	0.0	28.6	27.4	30.3
	2007	606	11.2	3.8	2.9	1.5	4.7	6.8	4.1	37.0	21.5	6.5	24.0	34.1	14.4
Botswana	2003	322	2.4	6.7	0.0	0.6	0.4	3.9	0.3	85.8	0.0	0.0	10.1	9.4	10.9
	2007	598	2.3	2.6	0.1	0.9	0.5	2.0	1.1	64.5	13.3	12.8	6.4	5.8	6.9
Bulgaria	2003	192	50.0	5.7	4.9	3.0	0.0	11.6	2.5	22.3	0.0	0.0	63.6	65.0	62.3
	2007	439	26.5	3.3	1.9	2.2	1.3	9.6	1.4	9.5	23.8	20.6	35.2	32.6	37.6
Chinese Taipei	2003	384	35.1	1.9	15.1	1.9	4.1	11.1	2.4	28.3	0.0	0.0	58.1	58.4	57.8
	2007	574	34.2	2.0	11.7	3.6	0.9	7.4	0.2	28.3	8.7	3.1	52.4	51.8	52.9
Cyprus	2003	169	12.3	7.3	1.8	5.7	0.5	3.2	22.3	46.8	0.0	0.0	27.6	22.9	34.4
	2007	625	9.5	2.8	3.9	3.4	0.8	2.0	15.7	29.4	21.7	10.7	20.4	16.5	24.0
Egypt	2003	502	11.0	2.5	2.3	3.7	0.5	9.3	8.5	62.0	0.0	0.0	20.1	25.3	15.5
	2007	935	11.0	3.8	0.7	1.1	0.6	4.2	4.4	52.2	15.9	6.2	17.2	19.1	15.3
England	2003	181	31.9	9.0	8.5	2.4	1.6	8.0	5.7	32.9	0.0	0.0	53.4	42.3	68.8
	2007	589	33.6	6.1	5.8	2.5	0.1	5.1	3.8	32.9	8.4	1.8	48.0	45.9	50.3
Ghana	2003	167	0.0	7.1	0.0	2.9	1.0	2.3	0.0	86.7	0.0	0.0	11.0	5.9	15.3
	2007	755	1.9	1.5	0.0	1.2	0.6	1.8	1.3	44.1	31.9	15.7	5.2	3.6	6.5
Hong Kong SAR	2003	320	20.9	3.2	8.4	3.0	0.0	11.9	1.9	50.8	0.0	0.0	35.4	30.1	40.9
	2007	501	20.2	2.5	6.4	2.3	1.6	10.0	6.1	35.7	10.9	4.4	33.0	28.9	37.0
Hungary	2003	211	52.3	3.1	14.9	2.5	1.1	4.2	6.4	15.5	0.0	0.0	73.9	64.7	83.2
	2007	582	46.4	2.9	12.0	1.5	0.4	1.9	2.6	13.8	13.3	5.3	63.2	63.7	62.7
Indonesia	2003	299	11.4	2.2	1.0	6.6	2.0	3.9	0.0	72.9	0.0	0.0	23.3	20.5	25.8
	2007	605	8.8	1.2	0.6	3.4	0.9	2.8	0.3	57.0	17.7	7.2	15.0	12.4	17.5
Iran, Islamic Rep. of	2003	238	15.0	1.1	5.4	3.5	5.0	6.6	12.6	50.8	0.0	0.0	30.0	30.9	29.4
	2007	572	12.5	0.8	2.9	5.8	1.5	3.1	9.6	33.1	23.2	7.4	23.6	24.1	23.2
Israel	2003	233	29.6	6.2	9.3	4.1	3.3	9.9	7.9	29.6	0.0	0.0	52.5	49.4	55.5
	2007	460	20.9	3.2	3.8	3.8	1.1	8.1	3.5	20.6	25.3	9.6	32.8	34.4	31.1
Italy	2003	211	34.5	4.8	6.5	2.7	1.4	7.3	5.6	37.2	0.0	0.0	49.9	44.0	55.5
	2007	631	32.8	3.8	3.4	2.9	0.8	3.5	3.5	19.5	21.7	8.0	43.7	39.4	47.8
Japan	2003	337	19.4	1.2	29.6	4.9	3.0	13.1	2.7	26.0	0.0	0.0	58.2	48.1	66.8
	2007	610	24.0	2.4	15.0	4.1	1.9	10.1	1.1	28.3	8.7	4.4	47.3	43.2	51.9
Jordan	2003	273	20.4	4.8	6.8	4.0	7.3	9.1	3.5	44.1	0.0	0.0	43.4	40.7	46.5
	2007	742	21.1	6.3	9.0	3.3	3.8	7.0	3.3	32.1	11.2	3.0	43.5	46.2	41.1
Korea, Rep. of	2003	399	14.8	1.9	18.3	5.8	0.0	15.6	0.0	43.5	0.0	0.0	40.9	36.3	45.1
	2007	612	17.4	0.8	23.8	3.3	0.7	10.2	0.5	36.8	5.2	1.2	46.0	45.1	46.9
Lebanon	2003	120	15.0	3.1	2.5	2.1	0.0	9.2	1.9	66.2	0.0	0.0	22.7	21.8	24.4
	2007	533	4.3	1.2	1.3	1.6	0.8	6.4	1.2	34.7	32.3	16.3	9.1	9.1	9.2

V1 = Percent scoring 1 or better V2 = Percent scoring 2 or better
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Trends in International Mathematics and Science Study - TIMSS 2007 Assessment Results
 Percent of Responses by Item Category (Weighted) - Science Trend Items - 8th Grade

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Science: Biology / Applying (S032697A - S01_10A)
 Label: At the bottom of ocean
 Type: CR Key: -

COUNTRY	Year	N	10	11	12	13	19	70	71	79	OMIT TED	NOT REACH ED	V1	1.GIRL %Right	2.BOY %Right
Lithuania	2003	298	23.6	4.1	19.0	6.3	4.5	10.1	0.3	32.2	0.0	0.0	57.4	56.2	58.8
	2007	572	22.7	4.7	19.1	3.9	0.2	5.7	3.5	24.3	10.7	5.2	50.6	47.2	54.1
Malaysia	2003	345	20.7	0.5	3.1	3.0	3.0	7.3	5.9	56.6	0.0	0.0	30.2	27.5	32.8
	2007	643	10.1	1.2	2.3	3.1	1.0	5.4	3.6	54.0	12.0	7.4	17.6	15.4	20.0
Norway	2003	291	35.5	10.0	14.9	5.9	2.3	7.1	7.4	16.9	0.0	0.0	68.5	62.2	75.1
	2007	655	30.1	10.6	10.9	4.5	1.5	4.0	4.3	20.0	9.6	4.4	57.7	55.9	59.5
Palestinian Nat'l Auth.	2003	346	24.0	1.2	1.6	3.4	2.3	7.5	5.9	54.1	0.0	0.0	32.6	32.9	32.1
	2007	626	15.1	2.2	3.1	1.3	3.2	5.9	3.2	47.6	14.1	4.4	24.9	31.2	18.1
Romania	2003	201	28.4	4.2	9.1	1.8	8.0	14.7	2.1	31.6	0.0	0.0	51.6	48.0	56.1
	2007	604	17.3	1.8	3.7	3.5	6.2	11.3	1.5	20.9	25.0	8.8	32.4	33.2	31.7
Russian Federation	2003	270	43.2	6.3	21.2	2.2	0.0	4.2	0.0	22.9	0.0	0.0	72.9	74.8	71.2
	2007	642	38.1	3.8	8.8	2.1	0.1	5.8	0.9	11.6	20.3	8.6	52.7	49.9	55.6
Scotland	2003	234	29.1	8.3	6.0	3.4	0.0	6.8	8.1	38.4	0.0	0.0	46.8	37.3	59.0
	2007	574	25.9	7.6	7.7	4.3	0.7	5.0	4.7	29.7	10.6	3.7	46.3	41.9	50.7
Serbia	2003	214	55.3	7.0	5.2	3.0	0.3	2.3	0.2	26.7	0.0	0.0	70.8	67.4	74.0
	2007	579	35.2	4.5	4.0	3.4	1.2	3.0	2.1	8.1	25.0	13.6	48.3	47.3	49.2
Singapore	2003	443	38.0	10.8	4.8	2.0	0.2	18.2	0.9	25.1	0.0	0.0	55.8	49.4	62.5
	2007	654	39.2	5.5	4.6	1.5	1.4	13.5	1.7	22.9	7.2	2.5	52.2	50.4	53.9
Slovenia	2003	236	51.2	4.5	5.6	8.2	0.5	8.3	0.5	21.2	0.0	0.0	70.0	71.1	69.0
	2007	578	60.4	1.6	4.6	10.5	0.1	4.8	1.8	10.9	4.6	0.6	77.4	77.4	77.3
Sweden	2003	298	41.1	11.1	9.6	6.8	0.0	11.4	4.2	15.9	0.0	0.0	68.6	62.9	77.0
	2007	743	35.9	10.8	9.5	7.7	1.3	7.2	3.7	9.5	9.3	5.0	65.3	64.4	66.1
Tunisia	2003	247	5.6	3.8	4.9	3.3	4.0	9.8	0.0	68.7	0.0	0.0	21.5	15.2	29.3
	2007	579	9.8	2.6	2.3	2.9	0.6	9.6	2.7	45.2	15.9	8.4	18.2	16.4	20.1
United States	2003	647	35.0	12.9	12.1	2.8	0.5	4.0	4.4	28.3	0.0	0.0	63.3	60.4	67.0
	2007	1073	38.6	11.0	8.4	2.6	0.9	1.8	6.5	22.3	4.9	3.1	61.5	55.1	68.4
International Avg.	2003	281	26.6	5.2	8.7	3.7	2.1	8.9	4.4	40.4	0.0	0.0	46.2	42.8	50.0
	2007	627	23.5	3.9	6.6	3.2	1.3	5.8	3.3	29.5	15.8	7.0	38.5	37.3	39.6
Basque Country, Spain	2003	146	27.6	9.1	7.8	2.9	2.8	9.7	10.9	29.1	0.0	0.0	50.3	49.0	51.9
	2007	332	31.8	5.9	6.3	4.6	0.3	2.3	7.5	23.4	10.5	7.4	48.8	44.0	53.2
Ontario, Canada	2003	270	32.1	11.0	9.3	3.4	1.1	10.7	5.2	27.3	0.0	0.0	56.9	50.2	67.2
	2007	487	27.4	12.6	11.4	2.9	0.6	4.0	4.5	27.6	7.1	1.9	54.9	50.9	59.6
Quebec, Canada	2003	314	28.7	15.8	13.0	2.6	2.6	14.3	3.1	20.0	0.0	0.0	62.7	61.5	64.0
	2007	558	22.1	13.0	5.1	3.7	0.1	9.6	3.3	30.5	7.5	5.1	43.9	44.3	43.6

V1 = Percent scoring 1 or better V2 = Percent scoring 2 or better
 Percent right for boys and girls corresponds to the percent obtaining the maximum score on the item.
 Because of missing gender information, some totals may appear inconsistent.

Science: Biology / Applying (S032697B - S01_10B)
 Label: At the bottom of ocean
 Type: CR Key: -

COUNTRY	Year	N	10	11	12	13	19	70	71	79	OMIT TED	NOT REACH ED	V1	1.GIRL %Right	2.BOY %Right
Armenia	2003	71	17.6	7.1	17.6	2.7	3.4	16.5	0.0	34.9	0.0	0.0	48.5	43.8	54.6
	2007	621	10.0	2.6	9.8	12.3	2.3	2.8	0.0	23.5	31.9	4.7	37.0	35.4	38.5
Australia	2003	301	16.1	19.8	6.8	15.9	0.0	1.1	4.9	35.2	0.0	0.0	58.7	52.7	64.7
	2007	582	15.6	13.2	7.9	14.1	0.5	2.8	3.8	22.4	13.7	6.0	51.3	46.4	55.7
Bahrain	2003	216	6.6	0.3	1.7	8.4	2.9	4.1	9.1	66.8	0.0	0.0	19.9	17.4	23.4
	2007	606	7.1	2.3	3.1	5.2	2.8	4.6	6.2	38.1	24.1	6.5	20.6	26.6	14.8
Botswana	2003	301	3.1	1.6	1.0	2.2	0.6	2.3	0.4	88.7	0.0	0.0	8.6	9.9	6.9
	2007	598	2.7	1.2	0.0	1.1	0.4	1.8	0.9	63.4	15.6	12.8	5.4	6.3	4.5
Bulgaria	2003	168	17.7	10.6	6.7	19.7	1.7	20.8	4.6	18.1	0.0	0.0	56.4	52.9	59.6
	2007	439	8.9	5.8	7.3	7.8	0.3	8.1	1.2	9.9	30.2	20.6	30.1	32.1	28.2
Chinese Taipei	2003	363	23.1	3.7	18.1	9.2	3.3	9.3	4.1	29.1	0.0	0.0	57.5	57.0	58.0
	2007	574	18.3	3.2	13.3	14.2	1.4	7.6	0.0	27.4	11.5	3.1	50.4	48.1	52.7
Cyprus	2003	140	4.1	6.0	9.2	8.7	0.8	4.0	8.5	58.8	0.0	0.0	28.8	23.7	35.7
	2007	625	4.1	4.2	1.5	6.8	1.4	3.4	6.0	32.1	29.9	10.7	18.0	13.8	21.9
Egypt	2003	455	7.2	2.2	1.0	5.8	0.2	7.0	6.4	70.1	0.0	0.0	16.5	15.8	17.1
	2007	935	5.9	2.5	0.7	2.1	0.6	3.5	5.1	50.6	22.6	6.2	11.9	11.8	11.9
England	2003	171	21.7	8.9	9.8	17.3	0.5	5.3	3.9	32.7	0.0	0.0	58.2	50.8	67.4
	2007	589	11.4	4.9	8.1	16.9	0.0	7.3	5.3	32.4	11.6	1.8	41.5	38.4	44.8
Ghana	2003	150	2.0	2.1	0.0	2.4	0.0	4.6	0.0	88.9	0.0	0.0	6.5	2.7	9.8
	2007	755	1.0	1.2	0.0	2.0	0.0	1.7	0.5	40.3	37.6	15.7	4.1	3.7	4.5
Hong Kong SAR	2003	297	13.0	6.3	6.7	10.1	0.0	7.9	2.3	53.6	0.0	0.0	36.1	35.9	36.4
	2007	501	10.5	4.4	5.8	9.7	0.6	5.8	3.8	38.5	16.5	4.4	31.0	30.8	31.2
Hungary	2003	192	14.3	15.3	19.9	13.8	3.3	4.6	5.1	23.7	0.0	0.0	66.6	62.2	70.8
	2007	582	14.6	10.2	12.7	16.7	0.3	3.6	3.4	13.9	19.3	5.3	54.5	54.9	54.1
Indonesia	2003	275	7.1	2.3	0.6	8.5	2.0	3.5	0.0	76.0	0.0	0.0	20.6	19.9	21.1
	2007	606	2.8	1.5	0.7	3.0	0.0	4.8	0.5	58.1	21.2	7.2	8.1	8.3	8.0
Iran, Islamic Rep. of	2003	205	7.7	0.7	3.3	13.9	4.0	4.7	13.3	52.5	0.0	0.0	29.5	27.6	31.0
	2007	572	6.1	0.5	1.8	9.9	0.9	4.1	5.2	35.5	28.6	7.4	19.2	19.0	19.4
Israel	2003	211	18.5	8.7	7.2	17.5	2.3	11.2	6.2	28.3	0.0	0.0	54.3	54.1	54.4
	2007	460	6.8	3.9	2.5	10.5	1.6	4.9	2.8	24.1	33.3	9.6	25.4	25.9	24.8
Italy	2003	171	13.9	7.7	10.3	19.2	2.8	10.4	4.2	31.5	0.0	0.0	53.9	47.7	59.1
	2007	631	6.5	6.9	7.2	12.1	0.5	3.9	3.9	19.8	31.1	8.0	33.2	33.4	33.1
Japan	2003	310	16.6	2.7	16.7	19.4	5.8	7.7	2.5	28.5	0.0	0.0	61.3	49.4	71.3
	2007	610	15.8	1.7	13.6	12.0	1.8	7.0	1.1	29.3	13.3	4.4	44.9	43.6	46.4
Jordan	2003	259	9.7	5.3	6.6	13.9	3.9	7.4	6.6	46.5	0.0	0.0	39.5	44.3	33.9
	2007	742	10.3	6.1	5.1	10.1	1.7	6.2	5.5	37.1	14.8	3.0	33.4	37.6	29.7
Korea, Rep. of	2003	375	12.7	4.4	12.6	13.7	0.0	13.6	1.2	41.9	0.0	0.0	43.3	38.2	48.0
	2007	612	13.4	3.4	12.2	12.3	0.3	9.7	1.6	38.9	7.1	1.2	41.5	38.7	44.0
Lebanon	2003	104	5.2	2.4	1.6	6.5	0.0	8.1	9.1	67.1	0.0	0.0	15.7	19.2	10.0
	2007	533	2.7	0.8	1.3	4.8	0.6	1.9	1.1	34.3	36.2	16.3	10.3	9.9	10.7

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 Label: At the bottom of ocean
 Type: CR Key: -

COUNTRY	Year	N	10	11	12	13	19	70	71	79	OMIT TED	NOT REACH ED	V1	1.GIRL %Right	2.BOY %Right
Lithuania	2003	280	15.9	6.1	13.5	13.7	3.1	10.7	0.0	37.0	0.0	0.0	52.3	46.7	58.7
	2007	572	16.7	5.9	7.8	11.9	0.5	6.7	3.8	23.4	18.0	5.2	42.9	38.8	46.9
Malaysia	2003	324	8.2	2.1	3.9	12.0	1.5	9.8	4.6	57.9	0.0	0.0	27.7	25.9	29.5
	2007	643	5.2	1.5	0.6	8.4	0.9	5.1	4.3	49.9	16.6	7.4	16.7	16.7	16.7
Norway	2003	271	15.0	15.4	15.1	17.4	2.4	6.5	4.9	23.2	0.0	0.0	65.3	62.0	68.8
	2007	655	12.5	11.1	8.2	16.6	1.2	5.0	5.0	20.1	15.9	4.4	49.5	44.7	54.4
Palestinian Nat'l Auth.	2003	321	9.7	0.6	3.4	8.7	4.6	11.5	6.4	55.1	0.0	0.0	27.0	28.4	25.1
	2007	626	5.4	1.7	1.8	4.4	2.0	5.8	4.1	51.6	18.8	4.4	15.2	18.2	12.1
Romania	2003	181	17.5	5.6	6.7	9.4	8.6	11.8	2.4	38.1	0.0	0.0	47.7	40.6	55.8
	2007	604	10.3	5.7	3.0	7.1	5.9	6.9	1.1	19.4	31.8	8.8	32.0	36.7	27.8
Russian Federation	2003	254	22.1	12.4	15.5	15.0	0.0	8.0	0.7	26.3	0.0	0.0	65.0	67.8	62.7
	2007	642	12.4	8.3	11.1	12.2	0.0	7.8	1.8	11.2	26.6	8.6	44.0	43.7	44.2
Scotland	2003	217	15.7	8.1	8.1	15.2	1.0	5.5	5.9	40.4	0.0	0.0	48.1	43.8	53.5
	2007	574	11.5	7.2	5.6	12.7	0.1	2.3	10.3	29.5	17.0	3.7	37.1	32.7	41.6
Serbia	2003	184	13.3	10.0	15.4	15.0	2.6	8.1	0.5	35.1	0.0	0.0	56.4	57.3	55.5
	2007	579	11.1	6.5	7.2	11.3	0.8	4.5	3.9	10.7	30.6	13.6	36.8	33.6	39.8
Singapore	2003	421	20.1	8.7	8.3	11.5	0.2	20.1	2.6	28.4	0.0	0.0	48.9	46.5	51.4
	2007	654	16.2	7.9	8.3	9.9	1.5	11.8	1.6	30.9	9.4	2.5	43.8	39.5	47.7
Slovenia	2003	221	14.4	8.2	6.5	34.0	2.7	4.0	3.2	26.9	0.0	0.0	65.9	67.3	64.5
	2007	578	13.6	11.4	5.7	37.1	0.2	5.6	1.1	15.9	8.9	0.6	67.9	69.9	66.2
Sweden	2003	271	22.7	10.9	8.9	21.8	0.3	8.2	5.0	22.2	0.0	0.0	64.7	64.6	64.8
	2007	743	14.6	11.5	9.9	19.9	1.5	6.0	4.1	11.3	16.3	5.0	57.3	54.4	60.1
Tunisia	2003	225	5.3	2.4	3.7	8.1	1.8	3.1	0.8	74.8	0.0	0.0	21.3	18.8	23.9
	2007	579	4.1	2.3	2.0	6.2	1.3	4.6	3.6	46.6	21.0	8.4	15.9	14.2	17.7
United States	2003	638	17.4	15.1	13.5	13.2	1.8	4.3	5.5	29.3	0.0	0.0	60.9	58.1	64.5
	2007	1073	15.7	11.5	10.4	17.6	0.7	2.2	5.8	26.4	6.5	3.1	55.9	49.2	63.3
International Avg.	2003	259	13.2	6.8	8.5	12.9	2.1	8.1	4.1	44.5	0.0	0.0	43.4	41.0	45.8
	2007	627	9.8	5.2	6.0	10.9	1.1	5.1	3.3	30.8	20.8	7.0	32.9	32.0	33.9
Basque Country, Spain	2003	127	10.3	9.6	4.2	18.3	0.5	3.7	8.3	45.1	0.0	0.0	43.0	36.8	50.2
	2007	332	9.4	7.7	6.1	13.2	0.2	3.7	6.3	26.8	19.3	7.4	36.6	29.0	43.3
Ontario, Canada	2003	256	15.3	11.9	8.3	17.5	1.2	3.7	6.4	35.8	0.0	0.0	54.1	50.4	59.4
	2007	487	14.8	12.5	8.2	15.9	0.2	2.4	6.2	26.8	11.2	1.9	51.6	47.5	56.5
Quebec, Canada	2003	301	16.4	14.2	10.6	17.2	1.9	10.3	5.2	24.3	0.0	0.0	60.2	60.6	59.8
	2007	558	12.9	6.7	6.7	14.8	1.2	4.5	5.5	30.8	11.6	5.1	42.4	43.2	41.7

V1 = Percent scoring 1 or better V2 = Percent scoring 2 or better
 Percent right for boys and girls corresponds to the percent obtaining the maximum score on the item.
 Because of missing gender information, some totals may appear inconsistent.

Science: Biology / Applying (S032697D - S01_10D)
 Label: At the bottom of ocean/DERIVED
 Type: CR Key: -

COUNTRY	Year	N	20	10	70	OMIT TED	NOT REACH ED	V1	V2	1.GIRL %Right	2.BOY %Right
Armenia	2003	88	15.3	54.5	30.2	0.0	0.0	69.8	15.3	19.5	10.9
	2007	621	31.3	15.6	22.4	26.0	4.7	46.9	31.3	28.6	33.9
Australia	2003	314	49.5	21.8	28.7	0.0	0.0	71.3	49.5	45.8	53.0
	2007	582	44.3	20.1	18.9	10.6	6.0	64.5	44.3	36.7	51.3
Bahrain	2003	237	8.9	29.2	61.9	0.0	0.0	38.1	8.9	6.6	12.0
	2007	606	11.3	21.9	39.0	21.3	6.5	33.2	11.3	15.7	7.2
Botswana	2003	323	1.9	14.3	83.8	0.0	0.0	16.2	1.9	2.5	1.1
	2007	598	2.0	7.9	64.1	13.3	12.8	9.8	2.0	2.6	1.3
Bulgaria	2003	192	36.7	39.3	24.0	0.0	0.0	76.0	36.7	30.4	42.7
	2007	439	21.7	21.9	12.6	23.2	20.6	43.6	21.7	21.7	21.6
Chinese Taipei	2003	384	38.2	36.4	25.4	0.0	0.0	74.6	38.2	38.5	37.9
	2007	574	37.4	27.9	23.4	8.2	3.1	65.3	37.4	33.6	41.2
Cyprus	2003	170	13.0	25.3	61.7	0.0	0.0	38.3	13.0	8.7	19.0
	2007	625	9.8	18.8	39.0	21.7	10.7	28.6	9.8	5.1	14.2
Egypt	2003	503	4.5	25.7	69.8	0.0	0.0	30.2	4.5	5.9	3.3
	2007	935	4.9	19.2	54.4	15.3	6.2	24.1	4.9	4.9	4.9
England	2003	181	37.7	31.6	30.7	0.0	0.0	69.3	37.7	27.5	51.8
	2007	589	31.3	26.9	31.6	8.4	1.8	58.2	31.3	27.4	35.5
Ghana	2003	169	1.8	13.0	85.2	0.0	0.0	14.8	1.8	1.1	2.3
	2007	755	1.5	6.4	44.8	31.6	15.7	7.8	1.5	1.2	1.7
Hong Kong SAR	2003	320	22.0	25.1	52.9	0.0	0.0	47.1	22.0	20.1	23.8
	2007	501	20.7	22.7	41.4	10.9	4.4	43.3	20.7	18.0	23.3
Hungary	2003	211	53.1	28.5	18.4	0.0	0.0	81.6	53.1	41.7	64.7
	2007	582	50.1	17.6	13.8	13.3	5.3	67.6	50.1	49.5	50.6
Indonesia	2003	299	9.6	22.9	67.5	0.0	0.0	32.5	9.6	7.0	12.0
	2007	605	3.1	16.9	56.0	16.8	7.2	19.9	3.1	2.3	3.8
Iran, Islamic Rep. of	2003	240	13.5	28.0	58.5	0.0	0.0	41.5	13.5	9.5	16.3
	2007	572	10.2	22.4	37.2	22.8	7.4	32.6	10.2	8.5	11.6
Israel	2003	234	32.5	36.2	31.3	0.0	0.0	68.7	32.5	29.5	35.5
	2007	460	16.3	25.6	23.4	25.2	9.6	41.9	16.3	16.4	16.2
Italy	2003	211	31.8	30.5	37.7	0.0	0.0	62.3	31.8	22.9	40.3
	2007	631	27.6	21.8	20.9	21.7	8.0	49.4	27.6	27.0	28.2
Japan	2003	337	41.6	31.5	26.9	0.0	0.0	73.1	41.6	30.8	50.7
	2007	610	31.9	28.4	26.6	8.7	4.4	60.3	31.9	29.9	34.2
Jordan	2003	274	23.5	33.8	42.8	0.0	0.0	57.2	23.5	26.0	20.5
	2007	742	24.4	28.1	33.4	11.1	3.0	52.5	24.4	27.9	21.2
Korea, Rep. of	2003	400	23.2	35.1	41.7	0.0	0.0	58.3	23.2	18.0	28.1
	2007	612	28.1	31.4	34.1	5.2	1.2	59.5	28.1	25.9	29.9
Lebanon	2003	120	7.5	20.7	71.9	0.0	0.0	28.1	7.5	7.7	7.1
	2007	533	4.5	10.4	36.5	32.3	16.3	14.9	4.5	5.3	3.5

V1 = Percent scoring 1 or better V2 = Percent scoring 2 or better
 Percent right for boys and girls corresponds to the percent obtaining the maximum score on the item.
 Because of missing gender information, some totals may appear inconsistent.

Science: Biology / Applying (S032697D - S01_10D)
 Label: At the bottom of ocean/DERIVED
 Type: CR Key: -

COUNTRY	Year	N	20	10	70	OMIT TED	NOT REACH ED	V1	V2	1.GIRL %Right	2.BOY %Right
Lithuania	2003	299	35.8	34.7	29.4	0.0	0.0	70.6	35.8	28.9	43.9
	2007	572	34.1	25.4	24.8	10.5	5.2	59.4	34.1	28.8	39.3
Malaysia	2003	345	12.4	31.5	56.1	0.0	0.0	43.9	12.4	10.2	14.6
	2007	643	9.1	16.1	55.6	11.8	7.4	25.2	9.1	8.5	9.8
Norway	2003	291	49.0	32.2	18.8	0.0	0.0	81.2	49.0	43.6	54.8
	2007	655	43.1	20.9	22.2	9.4	4.4	64.0	43.1	38.3	48.2
Palestinian Nat'l Auth.	2003	346	10.0	37.4	52.5	0.0	0.0	47.5	10.0	9.2	11.1
	2007	626	8.3	23.4	50.1	13.7	4.4	31.8	8.3	9.5	7.1
Romania	2003	202	29.4	36.0	34.6	0.0	0.0	65.4	29.4	26.6	32.8
	2007	604	18.1	28.4	19.9	24.9	8.8	46.4	18.1	17.9	18.2
Russian Federation	2003	270	53.5	26.8	19.7	0.0	0.0	80.3	53.5	53.2	53.8
	2007	642	34.8	27.0	9.1	20.3	8.6	61.9	34.8	32.9	36.8
Scotland	2003	234	33.9	23.4	42.7	0.0	0.0	57.3	33.9	24.7	45.6
	2007	574	30.6	22.3	32.9	10.6	3.7	52.8	30.6	26.7	34.5
Serbia	2003	214	43.6	32.3	24.1	0.0	0.0	75.9	43.6	40.4	46.6
	2007	579	31.8	21.5	8.2	24.9	13.6	53.3	31.8	27.5	35.9
Singapore	2003	443	29.2	44.1	26.8	0.0	0.0	73.2	29.2	23.3	35.3
	2007	654	29.5	37.0	23.8	7.2	2.5	66.5	29.5	24.4	34.2
Slovenia	2003	236	51.3	29.5	19.2	0.0	0.0	80.8	51.3	52.4	50.3
	2007	578	62.4	20.6	12.0	4.4	0.6	82.9	62.4	61.5	63.1
Sweden	2003	298	45.5	37.2	17.4	0.0	0.0	82.6	45.5	40.8	52.4
	2007	743	48.3	25.9	11.7	9.0	5.0	74.3	48.3	43.4	53.0
Tunisia	2003	247	9.6	21.8	68.7	0.0	0.0	31.3	9.6	5.1	15.1
	2007	579	7.0	20.1	48.6	15.9	8.4	27.1	7.0	5.5	8.6
United States	2003	648	52.1	19.0	28.9	0.0	0.0	71.1	52.1	48.8	56.3
	2007	1073	47.9	21.6	22.5	4.9	3.1	69.5	47.9	40.8	55.7
International Avg.	2003	281	27.9	30.0	42.1	0.0	0.0	57.9	27.9	24.4	31.7
	2007	627	24.8	21.9	30.8	15.6	7.0	46.6	24.8	22.8	26.7
Basque Country, Spain	2003	146	28.1	30.1	41.8	0.0	0.0	58.2	28.1	26.4	30.4
	2007	332	31.3	22.8	28.0	10.5	7.4	54.1	31.3	23.9	37.9
Ontario, Canada	2003	270	40.8	26.0	33.1	0.0	0.0	66.9	40.8	32.0	54.3
	2007	487	40.9	24.8	25.3	7.1	1.9	65.6	40.9	35.7	46.9
Quebec, Canada	2003	314	41.4	37.3	21.2	0.0	0.0	78.8	41.4	40.7	42.2
	2007	558	28.6	29.1	29.7	7.5	5.1	57.7	28.6	27.6	29.5

V1 = Percent scoring 1 or better V2 = Percent scoring 2 or better
 Percent right for boys and girls corresponds to the percent obtaining the maximum score on the item.
 Because of missing gender information, some totals may appear inconsistent.

Science: Chemistry / Knowing (S022183 - S03_01)
 Label: Gas needed for rust to form
 Type: MC Key: B

COUNTRY	Year	N	DIFF	A	B	C	D	OMIT TED	NOT REACH ED	1.GIRL %Right	2.BOY %Right
Armenia	2003	1361	41.7	29.3	41.7	14.2	14.8	0.0	0.0	44.0	39.3
	2007	668	47.4	24.5	47.4	10.3	10.1	7.6	0.1	50.8	44.2
Australia	2003	1184	25.7	35.3	25.7	32.9	6.1	0.0	0.0	20.4	31.2
	2007	585	24.4	40.1	24.4	28.1	5.8	1.6	0.2	20.5	27.4
Bahrain	2003	959	17.1	24.4	17.1	24.7	33.8	0.0	0.0	15.3	18.8
	2007	611	30.5	19.5	30.5	22.1	25.3	2.1	0.6	35.7	25.6
Botswana	2003										
	2007	591	29.7	25.6	29.7	20.7	20.9	1.7	1.4	28.0	31.6
Bulgaria	2003	938	36.1	22.8	36.1	20.9	20.3	0.0	0.0	33.7	38.1
	2007	442	43.1	26.6	43.1	19.9	9.2	1.2	0.0	39.0	46.5
Chinese Taipei	2003	1337	88.9	4.2	88.9	4.7	2.2	0.0	0.0	89.5	88.3
	2007	584	89.1	5.3	89.1	3.7	1.9	0.0	0.0	86.5	91.5
Cyprus	2003	969	11.1	34.7	11.1	35.4	18.8	0.0	0.0	7.5	14.8
	2007	637	14.5	29.5	14.5	36.7	17.4	1.9	0.0	11.3	17.4
Egypt	2003	1728	56.6	15.3	56.6	15.0	13.1	0.0	0.0	52.9	59.8
	2007	941	47.5	13.3	47.5	17.1	21.0	0.9	0.1	48.1	46.9
England	2003	687	53.0	23.7	53.0	20.4	2.8	0.0	0.0	48.5	57.9
	2007	567	52.9	23.5	52.9	20.8	1.9	0.8	0.0	45.6	61.2
Ghana	2003	1213	36.0	22.4	36.0	21.0	20.6	0.0	0.0	34.6	37.2
	2007	746	38.2	20.2	38.2	18.2	17.6	5.1	0.7	39.7	37.1
Hong Kong SAR	2003	1235	68.0	13.0	68.0	10.8	8.2	0.0	0.0	61.7	74.5
	2007	483	57.4	19.6	57.4	14.6	8.2	0.0	0.2	53.6	61.3
Hungary	2003	803	62.9	11.7	62.9	18.3	7.0	0.0	0.0	55.7	70.7
	2007	582	60.7	14.1	60.7	18.2	6.1	0.9	0.0	52.5	69.4
Indonesia	2003	1377	7.6	26.4	7.6	23.0	42.9	0.0	0.0	6.6	8.8
	2007	596	11.4	19.8	11.4	22.3	44.2	2.3	0.1	7.8	15.2
Iran, Islamic Rep. of	2003	1210	54.8	15.5	54.8	14.0	15.7	0.0	0.0	56.9	53.3
	2007	565	62.5	13.5	62.5	10.4	12.3	1.3	0.0	69.4	56.4
Israel	2003	1041	49.1	21.0	49.1	19.4	10.5	0.0	0.0	47.8	50.5
	2007	478	42.6	18.2	42.6	24.1	10.1	3.7	1.2	40.1	45.5
Italy	2003	989	40.5	27.1	40.5	23.0	9.5	0.0	0.0	38.5	42.4
	2007	624	33.3	33.3	33.3	23.7	6.8	2.3	0.6	26.7	39.1
Japan	2003	1199	48.1	27.4	48.1	14.0	10.5	0.0	0.0	41.9	54.0
	2007	611	45.4	32.4	45.4	11.7	9.9	0.4	0.2	39.8	51.2
Jordan	2003	1068	63.9	12.2	63.9	12.0	11.9	0.0	0.0	66.6	61.4
	2007	745	72.2	8.1	72.2	9.8	8.7	0.9	0.3	73.2	71.3
Korea, Rep. of	2003	1336	29.8	25.6	29.8	37.7	6.9	0.0	0.0	25.3	34.1
	2007	601	30.3	26.6	30.3	35.3	7.0	0.9	0.0	22.8	37.0
Lebanon	2003	873	55.0	15.9	55.0	11.4	17.6	0.0	0.0	57.1	52.3
	2007	541	50.4	22.3	50.4	12.4	12.6	2.2	0.0	47.2	54.6

DIFF = Percent correct
 Because of missing gender information, some totals may appear inconsistent.

Science: Chemistry / Knowing (S022183 - S03_01)
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COUNTRY	Year	N	DIFF	A	B	C	D	OMIT TED	NOT REACH ED	1.GIRL %Right	2.BOY %Right
Lithuania	2003	1117	46.8	29.0	46.8	16.3	7.9	0.0	0.0	42.1	51.6
	2007	568	43.5	30.8	43.5	21.1	4.2	0.4	0.0	42.7	44.2
Malaysia	2003	1299	68.3	13.0	68.3	10.5	8.3	0.0	0.0	67.1	69.3
	2007	631	41.4	20.4	41.4	17.1	19.3	1.6	0.2	41.4	41.4
Norway	2003	996	24.1	32.6	24.1	33.0	10.3	0.0	0.0	17.7	30.4
	2007	659	25.8	29.5	25.8	31.4	11.3	2.0	0.0	20.8	30.6
Palestinian Nat'l Auth.	2003	1312	56.5	12.5	56.5	15.9	15.1	0.0	0.0	58.2	54.5
	2007	629	50.3	15.0	50.3	18.3	15.7	0.6	0.0	49.4	51.2
Romania	2003	998	45.6	17.8	45.6	21.4	15.2	0.0	0.0	44.6	46.7
	2007	603	37.5	21.7	37.5	24.8	12.5	2.8	0.6	35.4	39.6
Russian Federation	2003	1112	45.7	26.3	45.7	20.3	7.8	0.0	0.0	42.7	48.4
	2007	637	41.1	29.4	41.1	20.2	7.4	1.8	0.2	38.6	43.7
Scotland	2003	849	36.5	26.9	36.5	30.7	5.9	0.0	0.0	27.5	46.0
	2007	593	36.4	32.4	36.4	28.0	2.4	0.6	0.3	32.4	40.3
Serbia	2003	1038	33.5	27.8	33.5	22.1	16.6	0.0	0.0	34.0	32.9
	2007	575	37.4	27.6	37.4	21.9	10.7	2.4	0.0	32.6	42.0
Singapore	2003	1499	60.9	17.8	60.9	11.1	10.2	0.0	0.0	61.5	60.4
	2007	664	41.2	18.5	41.2	18.9	21.1	0.3	0.0	37.5	44.5
Slovenia	2003	831	39.9	29.3	39.9	17.2	13.6	0.0	0.0	37.1	42.7
	2007	576	50.3	23.8	50.3	16.5	8.0	1.3	0.0	45.7	55.3
Sweden	2003	1037	34.1	39.2	34.1	18.9	7.8	0.0	0.0	31.4	37.0
	2007	739	33.6	38.6	33.6	23.3	3.9	0.5	0.1	32.8	34.3
Tunisia	2003	1096	17.5	20.9	17.5	42.3	19.3	0.0	0.0	16.3	18.9
	2007	583	12.8	24.9	12.8	29.2	28.0	4.8	0.3	12.4	13.3
United States	2003	2202	30.9	31.3	30.9	30.9	6.8	0.0	0.0	23.5	38.9
	2007	1050	30.1	33.4	30.1	29.1	6.8	0.4	0.2	23.0	37.1
International Avg.	2003	1153	43.3	22.9	43.3	20.7	13.1	0.0	0.0	40.9	45.8
	2007	627	41.4	23.7	41.4	20.6	12.4	1.7	0.2	38.9	43.9
Basque Country, Spain	2003	610	22.3	15.5	22.3	30.5	31.8	0.0	0.0	22.5	22.1
	2007	328	26.8	16.4	26.8	24.7	28.5	3.6	0.0	23.8	29.8
Ontario, Canada	2003	1016	23.9	35.7	23.9	35.7	4.7	0.0	0.0	20.5	27.8
	2007	493	18.6	39.2	18.6	35.3	4.5	2.1	0.3	15.3	21.7
Quebec, Canada	2003	1091	39.5	27.7	39.5	25.4	7.4	0.0	0.0	33.4	45.3
	2007	552	25.3	31.5	25.3	31.6	10.5	1.1	0.0	19.6	31.3

DIFF = Percent correct
 Because of missing gender information, some totals may appear inconsistent.

Science: Chemistry / Knowing (S022276 - S03_02)
 Label: Observation of bubbling electrode
 Type: MC Key: A

COUNTRY	Year	N	DIFF	A	B	C	D	E	OMIT TED	NOT REACH ED	1.GIRL %Right	2.BOY %Right
Armenia	2003	1324	33.1	33.1	9.5	26.1	22.5	8.9	0.0	0.0	36.9	28.8
	2007	668	38.9	38.9	5.7	19.8	17.0	7.9	10.6	0.1	41.7	36.3
Australia	2003	1181	79.3	79.3	2.6	9.2	5.3	3.6	0.0	0.0	79.5	79.0
	2007	585	72.9	72.9	3.0	12.0	5.5	5.4	1.0	0.2	71.2	74.3
Bahrain	2003	1010	40.0	40.0	3.0	43.6	11.2	2.2	0.0	0.0	46.3	33.6
	2007	611	46.6	46.6	2.7	33.3	11.3	4.1	1.4	0.6	57.8	35.9
Botswana	2003	1238	48.5	48.5	8.6	14.0	9.1	19.8	0.0	0.0	48.4	48.6
	2007	591	40.5	40.5	9.8	15.4	9.0	21.4	2.5	1.4	40.4	40.6
Bulgaria	2003	947	55.1	55.1	12.5	23.9	4.8	3.7	0.0	0.0	54.0	56.0
	2007	442	55.0	55.0	14.4	16.4	6.7	5.0	2.5	0.0	65.9	46.1
Chinese Taipei	2003	1337	69.6	69.6	2.4	20.0	2.3	5.7	0.0	0.0	74.1	65.5
	2007	584	77.0	77.0	1.9	16.0	2.5	2.3	0.4	0.0	80.3	74.0
Cyprus	2003	978	44.2	44.2	7.0	37.9	5.4	5.5	0.0	0.0	50.1	38.1
	2007	637	42.2	42.2	9.3	36.1	6.5	4.7	1.4	0.0	48.0	36.7
Egypt	2003	1728	39.6	39.6	6.8	40.8	9.0	3.7	0.0	0.0	43.6	36.0
	2007	939	35.2	35.2	4.9	44.6	11.1	3.5	0.5	0.1	38.5	31.9
England	2003	682	69.3	69.3	5.2	16.3	6.4	2.9	0.0	0.0	72.2	66.2
	2007	567	72.9	72.9	5.3	13.2	5.3	2.4	1.0	0.0	77.7	67.5
Ghana	2003	1219	48.5	48.5	10.7	19.2	6.1	15.5	0.0	0.0	50.6	46.7
	2007	746	56.2	56.2	8.7	16.6	5.8	8.2	3.7	0.7	54.0	58.0
Hong Kong SAR	2003	1229	61.1	61.1	3.2	28.8	4.4	2.5	0.0	0.0	63.1	59.0
	2007	483	67.6	67.6	3.5	20.6	4.9	2.9	0.2	0.2	73.2	61.9
Hungary	2003	810	84.1	84.1	0.5	9.0	3.8	2.6	0.0	0.0	85.9	82.1
	2007	581	84.1	84.1	0.9	7.8	4.1	2.7	0.4	0.0	85.6	82.5
Indonesia	2003	1396	57.5	57.5	1.2	18.9	17.7	4.6	0.0	0.0	60.1	54.7
	2007	596	57.7	57.7	0.9	23.1	11.7	4.6	1.7	0.3	62.0	53.1
Iran, Islamic Rep. of	2003	1210	35.5	35.5	8.2	37.4	12.5	6.5	0.0	0.0	40.5	31.9
	2007	565	35.3	35.3	7.9	35.3	12.6	7.6	1.2	0.0	39.7	31.4
Israel	2003	1048	57.5	57.5	4.5	28.9	6.2	2.8	0.0	0.0	60.5	54.4
	2007	478	46.2	46.2	6.0	27.6	11.4	4.2	3.3	1.2	50.3	41.4
Italy	2003	1016	59.8	59.8	2.8	23.0	8.4	5.9	0.0	0.0	64.6	55.0
	2007	622	60.4	60.4	3.8	22.4	7.4	4.3	1.2	0.6	61.1	59.9
Japan	2003	1200	66.1	66.1	1.3	27.0	3.5	2.1	0.0	0.0	72.0	60.5
	2007	611	62.0	62.0	1.6	29.7	3.4	2.6	0.5	0.2	70.6	53.2
Jordan	2003	1074	25.5	25.5	5.9	51.4	11.2	6.1	0.0	0.0	29.5	21.7
	2007	745	38.5	38.5	4.1	38.9	11.0	5.9	1.2	0.3	45.4	32.3
Korea, Rep. of	2003	1342	47.6	47.6	2.0	47.6	1.7	1.1	0.0	0.0	51.8	43.7
	2007	601	55.1	55.1	0.6	42.2	1.2	0.8	0.0	0.0	59.2	51.5
Lebanon	2003	798	34.2	34.2	7.6	36.3	6.5	15.5	0.0	0.0	38.7	28.1
	2007	528	41.4	41.4	7.6	23.9	4.4	15.8	6.9	0.0	43.3	39.1

DIFF = Percent correct
 Because of missing gender information, some totals may appear inconsistent.

Science: Chemistry / Knowing (S022276 - S03_02)
 Label: Observation of bubbling electrode
 Type: MC Key: A

COUNTRY	Year	N	DIFF	A	B	C	D	E	OMIT TED	NOT REACH ED	1.GIRL %Right	2.BOY %Right
Lithuania	2003	1123	48.0	48.0	8.0	32.5	3.5	8.1	0.0	0.0	52.8	42.9
	2007	568	43.4	43.4	12.0	32.5	3.5	8.1	0.5	0.0	52.3	35.6
Malaysia	2003	1306	78.7	78.7	2.6	13.5	2.2	3.0	0.0	0.0	78.7	78.8
	2007	632	64.6	64.6	6.4	15.0	5.8	6.7	1.3	0.2	69.4	59.1
Norway	2003	1006	49.8	49.8	2.0	28.0	9.8	10.4	0.0	0.0	48.6	51.0
	2007	659	47.9	47.9	2.8	22.7	10.0	14.1	2.6	0.0	46.5	49.3
Palestinian Nat'l Auth.	2003	1325	47.9	47.9	3.9	34.2	10.5	3.4	0.0	0.0	56.5	37.5
	2007	628	26.7	26.7	5.1	42.9	16.7	6.9	1.7	0.1	31.7	21.6
Romania	2003	996	37.3	37.3	4.6	39.3	11.5	7.3	0.0	0.0	38.6	35.8
	2007	603	45.1	45.1	3.0	34.3	8.6	7.1	1.3	0.6	46.4	43.8
Russian Federation	2003	1125	67.0	67.0	3.1	25.1	3.2	1.6	0.0	0.0	72.3	61.8
	2007	637	68.6	68.6	1.3	25.1	2.5	0.9	1.3	0.2	75.8	60.7
Scotland	2003	855	55.4	55.4	2.7	28.2	8.4	5.3	0.0	0.0	56.9	53.9
	2007	593	52.2	52.2	5.1	24.3	11.5	4.9	1.7	0.3	53.6	50.8
Serbia	2003	1031	64.6	64.6	2.0	24.2	6.8	2.4	0.0	0.0	69.1	60.4
	2007	574	63.5	63.5	3.7	22.1	6.8	1.2	2.6	0.0	68.7	58.5
Singapore	2003	1499	83.7	83.7	3.4	7.1	2.6	3.2	0.0	0.0	86.3	80.9
	2007	664	75.2	75.2	4.3	9.2	4.9	6.3	0.1	0.0	80.2	70.7
Slovenia	2003	836	79.0	79.0	3.6	6.1	7.4	3.9	0.0	0.0	82.5	75.4
	2007	576	81.8	81.8	4.0	7.0	4.6	2.3	0.3	0.0	84.0	79.5
Sweden	2003	1036	35.3	35.3	6.5	39.0	8.6	10.6	0.0	0.0	36.1	34.5
	2007	739	32.2	32.2	6.2	36.6	8.8	15.4	0.7	0.1	30.4	33.7
Tunisia	2003	1140	65.4	65.4	3.2	19.4	7.6	4.3	0.0	0.0	68.6	61.7
	2007	583	71.6	71.6	3.1	13.0	7.6	2.7	1.4	0.5	75.5	66.9
United States	2003	2201	73.8	73.8	3.9	11.4	5.7	5.2	0.0	0.0	74.4	73.1
	2007	1050	76.3	76.3	3.0	9.7	4.5	5.9	0.4	0.2	77.8	74.8
International Avg.	2003	1159	55.8	55.8	4.7	26.3	7.4	5.8	0.0	0.0	58.9	52.6
	2007	627	55.6	55.6	4.9	23.9	7.5	6.0	1.7	0.3	59.3	51.9
Basque Country, Spain	2003	618	47.8	47.8	3.1	27.8	10.3	11.0	0.0	0.0	47.5	48.2
	2007	328	46.9	46.9	3.8	23.2	13.2	9.4	3.4	0.0	45.4	48.5
Ontario, Canada	2003	1029	78.8	78.8	2.0	11.6	4.0	3.5	0.0	0.0	82.6	74.5
	2007	493	73.0	73.0	2.0	12.0	7.3	4.5	0.9	0.3	75.5	70.7
Quebec, Canada	2003	1097	78.3	78.3	0.6	14.7	2.9	3.4	0.0	0.0	78.6	78.1
	2007	552	77.3	77.3	1.2	13.5	4.5	2.3	1.3	0.0	82.4	72.2

DIFF = Percent correct
 Because of missing gender information, some totals may appear inconsistent.

Science: Biology / Reasoning (S022115 - S03_03)
 Label: Oxygen/carbon dioxide cycle
 Type: MC Key: D

COUNTRY	Year	N	DIFF	A	B	C	D	OMIT TED	NOT REACH ED	1.GIRL %Right	2.BOY %Right
Armenia	2003	1347	60.8	6.3	26.4	6.5	60.8	0.0	0.0	62.3	59.2
	2007	667	55.4	7.1	22.4	5.5	55.4	9.5	0.1	58.9	52.2
Australia	2003	1173	63.3	3.4	25.9	7.4	63.3	0.0	0.0	63.5	63.1
	2007	585	62.5	4.2	22.6	8.6	62.5	1.8	0.3	60.5	63.9
Bahrain	2003	996	60.2	4.6	29.0	6.3	60.2	0.0	0.0	66.8	53.4
	2007	611	64.6	3.3	25.4	4.9	64.6	1.2	0.6	71.3	58.3
Botswana	2003	1244	43.6	10.0	36.6	9.8	43.6	0.0	0.0	41.7	45.5
	2007	592	46.5	7.3	34.2	9.0	46.5	1.6	1.4	52.4	39.9
Bulgaria	2003	936	48.7	5.7	39.2	6.4	48.7	0.0	0.0	48.1	49.2
	2007	442	50.9	4.3	32.7	7.9	50.9	4.3	0.0	55.0	47.5
Chinese Taipei	2003	1320	73.1	3.9	16.8	6.1	73.1	0.0	0.0	73.8	72.5
	2007	584	72.8	5.9	16.4	5.0	72.8	0.0	0.0	66.1	78.7
Cyprus	2003	964	55.8	3.4	33.2	7.6	55.8	0.0	0.0	57.7	53.9
	2007	637	55.2	5.4	31.0	6.3	55.2	2.1	0.0	60.4	50.4
Egypt	2003	1715	49.2	6.2	35.4	9.2	49.2	0.0	0.0	49.2	49.1
	2007	930	46.5	5.9	35.8	10.3	46.5	1.4	0.1	48.5	44.4
England	2003	674	61.3	3.0	30.3	5.3	61.3	0.0	0.0	58.2	64.6
	2007	567	66.2	1.3	25.5	6.4	66.2	0.7	0.0	66.7	65.6
Ghana	2003	1198	30.8	13.1	37.5	18.6	30.8	0.0	0.0	29.7	31.8
	2007	746	35.4	9.4	37.2	13.5	35.4	3.5	0.9	35.8	35.0
Hong Kong SAR	2003	1235	79.2	3.5	15.0	2.3	79.2	0.0	0.0	77.9	80.6
	2007	483	73.9	5.4	16.6	3.7	73.9	0.0	0.4	76.2	71.4
Hungary	2003	776	63.8	1.2	28.8	6.1	63.8	0.0	0.0	62.9	64.8
	2007	582	60.6	2.1	26.0	7.6	60.6	3.7	0.1	59.8	61.4
Indonesia	2003	1409	42.4	4.7	41.6	11.3	42.4	0.0	0.0	42.0	42.8
	2007	596	45.2	6.1	40.0	6.9	45.2	1.4	0.5	45.4	45.0
Iran, Islamic Rep. of	2003	1211	48.8	5.7	37.5	8.0	48.8	0.0	0.0	51.0	47.3
	2007	561	49.3	3.8	37.8	7.4	49.3	1.5	0.3	54.9	44.4
Israel	2003	1054	66.7	3.9	24.8	4.6	66.7	0.0	0.0	65.3	68.2
	2007	478	57.3	4.3	27.6	6.2	57.3	3.5	1.2	60.4	53.6
Italy	2003	946	56.1	4.5	30.9	8.4	56.1	0.0	0.0	54.9	57.4
	2007	622	53.1	5.1	29.8	7.3	53.1	4.0	0.7	49.5	56.3
Japan	2003	1200	86.1	1.6	10.6	1.8	86.1	0.0	0.0	86.3	85.9
	2007	611	84.1	2.0	10.8	2.2	84.1	0.8	0.2	83.5	84.7
Jordan	2003	1072	56.2	5.0	30.8	8.0	56.2	0.0	0.0	62.8	49.8
	2007	745	60.6	9.4	25.7	3.2	60.6	0.6	0.5	64.8	56.8
Korea, Rep. of	2003	1341	80.0	2.2	16.0	1.9	80.0	0.0	0.0	77.2	82.6
	2007	601	80.8	1.4	16.4	1.5	80.8	0.0	0.0	80.3	81.2
Lebanon	2003	863	62.7	2.8	28.3	6.1	62.7	0.0	0.0	64.5	60.3
	2007	538	63.1	3.1	26.2	5.8	63.1	1.8	0.0	66.0	59.4

DIFF = Percent correct
 Because of missing gender information, some totals may appear inconsistent.

Science: Biology / Reasoning (S022115 - S03_03)
 Label: Oxygen/carbon dioxide cycle
 Type: MC Key: D

COUNTRY	Year	N	DIFF	A	B	C	D	OMIT TED	NOT REACH ED	1.GIRL %Right	2.BOY %Right
Lithuania	2003	1125	75.3	3.1	18.2	3.4	75.3	0.0	0.0	78.1	72.4
	2007	567	73.7	4.0	17.4	3.7	73.7	1.3	0.0	71.4	75.7
Malaysia	2003	1305	76.1	2.8	18.9	2.3	76.1	0.0	0.0	73.5	78.4
	2007	633	68.1	4.4	21.5	4.9	68.1	0.6	0.5	66.8	69.5
Norway	2003	965	49.5	5.4	36.9	8.3	49.5	0.0	0.0	52.1	47.0
	2007	659	50.1	6.3	29.8	10.2	50.1	3.6	0.0	54.1	46.3
Palestinian Nat'l Auth.	2003	1303	49.5	5.6	34.1	10.8	49.5	0.0	0.0	51.6	47.0
	2007	629	42.3	8.6	35.4	10.8	42.3	2.5	0.3	44.9	39.7
Romania	2003	985	63.3	4.1	27.3	5.3	63.3	0.0	0.0	63.4	63.2
	2007	603	54.5	3.6	32.3	6.0	54.5	2.9	0.6	54.8	54.3
Russian Federation	2003	1123	61.7	3.6	30.9	3.7	61.7	0.0	0.0	66.7	56.9
	2007	637	66.6	3.0	24.7	3.5	66.6	1.7	0.5	67.1	66.0
Scotland	2003	824	64.2	3.5	26.6	5.7	64.2	0.0	0.0	62.5	66.1
	2007	593	57.5	5.2	26.7	8.5	57.5	1.8	0.3	56.8	58.2
Serbia	2003	999	57.6	4.4	32.9	5.1	57.6	0.0	0.0	60.9	54.6
	2007	571	62.6	2.8	25.3	4.3	62.6	4.8	0.1	64.4	60.9
Singapore	2003	1499	83.0	2.3	11.8	2.8	83.0	0.0	0.0	82.1	84.0
	2007	664	78.2	3.2	15.7	2.5	78.2	0.4	0.0	80.3	76.3
Slovenia	2003	844	65.9	5.7	22.3	6.1	65.9	0.0	0.0	64.6	67.3
	2007	576	68.8	3.4	22.5	4.3	68.8	0.9	0.0	68.6	69.1
Sweden	2003	1024	68.7	4.1	24.7	2.6	68.7	0.0	0.0	67.6	69.8
	2007	739	64.8	3.1	25.3	4.3	64.8	2.4	0.1	65.0	64.7
Tunisia	2003	1030	43.3	3.7	42.2	10.8	43.3	0.0	0.0	44.7	41.5
	2007	583	57.4	3.0	27.9	6.9	57.4	4.1	0.8	58.2	56.4
United States	2003	2203	64.8	3.7	25.7	5.8	64.8	0.0	0.0	63.9	65.8
	2007	1050	63.7	4.0	24.5	6.7	63.7	0.9	0.2	61.5	65.8
International Avg.	2003	1149	61.0	4.5	28.1	6.5	61.0	0.0	0.0	61.4	60.5
	2007	627	60.4	4.6	26.3	6.2	60.4	2.2	0.3	61.5	59.2
Basque Country, Spain	2003	605	62.1	4.0	28.5	5.4	62.1	0.0	0.0	62.8	61.3
	2007	328	54.6	5.5	32.6	5.3	54.6	2.0	0.0	49.1	60.2
Ontario, Canada	2003	1020	68.0	3.3	23.9	4.9	68.0	0.0	0.0	66.1	70.1
	2007	493	65.2	1.5	28.5	3.7	65.2	0.8	0.3	66.8	63.7
Quebec, Canada	2003	1095	79.1	1.7	16.2	3.0	79.1	0.0	0.0	76.9	81.2
	2007	552	72.1	2.0	20.7	3.4	72.1	1.7	0.0	69.9	74.3

DIFF = Percent correct
 Because of missing gender information, some totals may appear inconsistent.

Science: Physics / Reasoning (S022022 - S03_04)
 Label: Current/voltage table
 Type: CR Key: -

COUNTRY	Year	N	10	70	79	OMIT TED	NOT REACH ED	V1	1.GIRL %Right	2.BOY %Right
Armenia	2003	977	64.6	31.2	4.2	0.0	0.0	64.6	60.4	69.4
	2007	669	59.2	23.7	5.3	11.6	0.2	59.2	63.8	55.1
Australia	2003	1132	55.4	42.9	1.7	0.0	0.0	55.4	49.6	61.4
	2007	585	53.1	38.1	2.8	5.8	0.3	53.1	46.4	58.2
Bahrain	2003	885	31.5	50.5	17.9	0.0	0.0	31.5	29.0	34.3
	2007	611	23.9	50.4	15.2	9.9	0.6	23.9	22.5	25.2
Botswana	2003	1134	15.1	74.8	10.1	0.0	0.0	15.1	13.1	17.2
	2007	589	15.4	60.6	11.8	10.6	1.6	15.4	17.0	13.6
Bulgaria	2003	822	52.2	40.6	7.2	0.0	0.0	52.2	48.5	55.2
	2007	441	35.6	33.0	6.4	25.0	0.0	35.6	32.6	38.1
Chinese Taipei	2003	1309	62.5	34.0	3.5	0.0	0.0	62.5	59.2	65.5
	2007	584	67.3	27.4	2.9	2.4	0.0	67.3	62.5	71.5
Cyprus	2003	895	58.7	36.5	4.8	0.0	0.0	58.7	55.8	61.7
	2007	637	59.2	13.6	17.0	10.2	0.0	59.2	54.7	63.4
Egypt	2003	1636	36.0	48.7	15.4	0.0	0.0	36.0	34.5	37.3
	2007	940	34.1	48.9	11.4	5.5	0.1	34.1	31.5	36.7
England	2003	671	56.6	41.9	1.5	0.0	0.0	56.6	51.5	62.0
	2007	567	62.3	31.4	1.6	4.8	0.0	62.3	58.4	66.7
Ghana	2003	886	17.2	63.5	19.3	0.0	0.0	17.2	16.6	17.6
	2007	746	17.7	46.8	12.8	21.0	1.7	17.7	17.3	18.0
Hong Kong SAR	2003	1221	67.2	29.1	3.6	0.0	0.0	67.2	62.2	72.4
	2007	483	64.3	30.3	2.6	2.4	0.4	64.3	62.2	66.5
Hungary	2003	768	65.2	30.7	4.2	0.0	0.0	65.2	59.6	70.9
	2007	582	66.2	23.8	5.2	4.7	0.1	66.2	62.9	69.6
Indonesia	2003	1132	41.3	43.2	15.5	0.0	0.0	41.3	42.1	40.4
	2007	596	38.1	31.5	16.5	12.9	1.0	38.1	35.9	40.5
Iran, Islamic Rep. of	2003	1059	44.5	42.9	12.6	0.0	0.0	44.5	35.9	49.8
	2007	560	34.4	42.5	13.6	9.1	0.4	34.4	31.0	37.3
Israel	2003	966	66.4	28.3	5.4	0.0	0.0	66.4	61.1	71.7
	2007	478	48.8	25.2	8.5	16.1	1.4	48.8	43.1	55.5
Italy	2003	859	55.0	37.6	7.4	0.0	0.0	55.0	49.0	60.2
	2007	624	53.7	25.3	4.8	14.8	1.4	53.7	43.7	62.2
Japan	2003	1189	62.6	35.6	1.8	0.0	0.0	62.6	56.1	68.8
	2007	611	61.4	34.3	2.6	1.4	0.2	61.4	60.5	62.4
Jordan	2003	982	34.2	54.1	11.7	0.0	0.0	34.2	32.6	35.6
	2007	745	29.7	48.9	14.1	6.8	0.5	29.7	26.2	32.8
Korea, Rep. of	2003	1334	65.5	31.1	3.3	0.0	0.0	65.5	62.1	68.8
	2007	601	67.2	30.4	1.6	0.7	0.0	67.2	64.6	69.6
Lebanon	2003	803	50.3	45.8	3.9	0.0	0.0	50.3	48.6	52.7
	2007	542	53.5	29.6	7.4	9.5	0.0	53.5	49.6	58.7

V1 = Percent scoring 1 or better V2 = Percent scoring 2 or better
 Percent right for boys and girls corresponds to the percent obtaining the maximum score on the item.
 Because of missing gender information, some totals may appear inconsistent.

Science: Physics / Reasoning (S022022 - S03_04)
 Label: Current/voltage table
 Type: CR Key: -

COUNTRY	Year	N	10	70	79	OMIT TED	NOT REACH ED	V1	1.GIRL %Right	2.BOY %Right
Lithuania	2003	1060	53.4	42.1	4.5	0.0	0.0	53.4	51.1	55.7
	2007	569	54.5	34.2	3.0	8.3	0.0	54.5	49.4	59.0
Malaysia	2003	1280	60.6	31.7	7.7	0.0	0.0	60.6	59.9	61.2
	2007	633	52.4	36.6	7.8	2.6	0.6	52.4	54.5	49.9
Norway	2003	943	49.0	44.6	6.4	0.0	0.0	49.0	46.6	51.2
	2007	659	48.7	35.9	5.5	9.9	0.0	48.7	42.1	54.9
Palestinian Nat'l Auth.	2003	1222	30.7	53.8	15.6	0.0	0.0	30.7	27.3	35.0
	2007	629	25.6	47.0	19.1	8.0	0.3	25.6	23.1	28.1
Romania	2003	862	56.6	35.4	8.0	0.0	0.0	56.6	55.0	58.2
	2007	603	42.8	40.7	5.1	10.5	0.8	42.8	40.3	45.2
Russian Federation	2003	1028	58.9	36.9	4.2	0.0	0.0	58.9	59.4	58.4
	2007	637	54.6	31.6	4.6	8.7	0.5	54.6	49.7	59.9
Scotland	2003	848	50.9	47.2	1.9	0.0	0.0	50.9	44.2	58.0
	2007	593	45.2	45.8	3.9	4.8	0.3	45.2	36.7	53.5
Serbia	2003	926	47.3	44.6	8.1	0.0	0.0	47.3	44.7	49.7
	2007	578	44.2	38.4	4.3	13.0	0.1	44.2	39.5	48.9
Singapore	2003	1484	70.4	27.3	2.3	0.0	0.0	70.4	67.5	73.4
	2007	664	67.7	27.9	2.8	1.7	0.0	67.7	67.8	67.6
Slovenia	2003	831	57.1	37.5	5.4	0.0	0.0	57.1	49.5	64.8
	2007	576	62.0	27.2	6.3	4.4	0.0	62.0	55.0	69.4
Sweden	2003	935	68.3	27.9	3.8	0.0	0.0	68.3	63.1	73.7
	2007	739	64.5	23.6	3.1	8.6	0.3	64.5	58.5	69.7
Tunisia	2003	983	54.4	34.1	11.5	0.0	0.0	54.4	47.6	61.3
	2007	583	42.3	38.0	8.4	10.5	0.8	42.3	36.7	48.9
United States	2003	2121	44.8	52.2	3.1	0.0	0.0	44.8	37.5	52.8
	2007	1050	45.5	49.0	2.3	2.8	0.3	45.5	42.6	48.4
International Avg.	2003	1066	51.6	41.2	7.2	0.0	0.0	51.6	47.9	55.3
	2007	627	48.3	35.5	7.3	8.5	0.4	48.3	44.9	51.7
Basque Country, Spain	2003	576	64.4	32.8	2.9	0.0	0.0	64.4	60.1	68.8
	2007	328	58.5	28.7	4.1	8.8	0.0	58.5	51.0	66.0
Ontario, Canada	2003	996	48.2	49.6	2.2	0.0	0.0	48.2	43.0	54.3
	2007	493	47.3	46.7	2.4	3.3	0.3	47.3	44.8	49.7
Quebec, Canada	2003	1081	68.5	28.8	2.7	0.0	0.0	68.5	63.7	73.0
	2007	552	62.5	27.9	4.7	4.5	0.4	62.5	57.1	68.1

V1 = Percent scoring 1 or better V2 = Percent scoring 2 or better
 Percent right for boys and girls corresponds to the percent obtaining the maximum score on the item.
 Because of missing gender information, some totals may appear inconsistent.

Science: Physics / Applying (S022019 - S03_05)
 Label: Transmission of sound on the moon
 Type: MC Key: C

COUNTRY	Year	N	DIFF	A	B	C	D	OMIT TED	NOT REACH ED	1.GIRL %Right	2.BOY %Right
Armenia	2003	1339	65.2	13.8	8.8	65.2	12.2	0.0	0.0	65.8	64.5
	2007	669	69.2	7.1	3.4	69.2	10.0	10.0	0.2	72.3	66.4
Australia	2003	1169	74.3	13.7	2.8	74.3	9.3	0.0	0.0	69.7	79.0
	2007	585	73.0	12.9	3.7	73.0	9.1	0.8	0.4	68.0	76.8
Bahrain	2003	1008	72.1	14.4	4.0	72.1	9.5	0.0	0.0	78.1	65.8
	2007	611	72.2	7.4	5.7	72.2	11.8	2.2	0.6	79.5	65.2
Botswana	2003	1243	58.8	14.2	10.8	58.8	16.2	0.0	0.0	59.6	57.9
	2007	589	50.4	14.3	12.2	50.4	17.7	2.7	2.6	52.3	48.4
Bulgaria	2003	952	66.0	14.1	6.5	66.0	13.3	0.0	0.0	64.8	67.0
	2007	441	57.5	21.7	6.7	57.5	11.6	2.6	0.0	52.8	61.3
Chinese Taipei	2003	1338	91.1	3.7	0.7	91.1	4.6	0.0	0.0	90.7	91.4
	2007	584	88.7	5.6	1.0	88.7	4.8	0.0	0.0	85.3	91.7
Cyprus	2003	978	57.8	24.9	6.1	57.8	11.2	0.0	0.0	55.4	60.3
	2007	637	47.7	30.4	8.0	47.7	12.7	1.2	0.0	46.4	48.9
Egypt	2003	1749	67.3	9.3	9.0	67.3	14.4	0.0	0.0	65.0	69.4
	2007	940	60.2	13.8	9.5	60.2	15.6	0.8	0.1	60.9	59.5
England	2003	684	82.2	9.8	2.4	82.2	5.6	0.0	0.0	78.5	86.0
	2007	567	77.1	13.3	1.4	77.1	6.9	1.0	0.3	75.2	79.2
Ghana	2003	1204	38.6	18.1	20.2	38.6	23.1	0.0	0.0	39.8	37.5
	2007	746	34.1	19.2	19.3	34.1	21.6	3.9	1.9	36.7	31.9
Hong Kong SAR	2003	1236	89.5	5.8	1.3	89.5	3.4	0.0	0.0	87.5	91.5
	2007	483	84.0	7.3	3.5	84.0	4.2	0.7	0.4	85.1	82.8
Hungary	2003	806	87.0	6.9	1.1	87.0	5.0	0.0	0.0	82.7	91.6
	2007	582	80.2	10.2	1.8	80.2	6.8	0.8	0.1	78.0	82.5
Indonesia	2003	1399	76.7	9.6	4.7	76.7	9.0	0.0	0.0	73.9	79.8
	2007	596	66.8	13.5	5.5	66.8	12.2	0.9	1.2	63.9	69.9
Iran, Islamic Rep. of	2003	1217	62.1	16.2	5.5	62.1	16.2	0.0	0.0	59.6	63.8
	2007	560	54.7	15.6	4.9	54.7	21.5	2.7	0.6	55.8	53.8
Israel	2003	1041	69.8	17.4	4.1	69.8	8.8	0.0	0.0	64.6	75.2
	2007	478	62.8	15.8	6.4	62.8	8.9	4.4	1.7	62.9	62.7
Italy	2003	1016	71.6	14.8	4.2	71.6	9.4	0.0	0.0	67.1	76.0
	2007	622	67.4	14.5	2.8	67.4	12.3	1.4	1.5	65.1	69.4
Japan	2003	1201	85.5	7.0	1.7	85.5	5.8	0.0	0.0	82.4	88.4
	2007	611	82.0	9.1	2.9	82.0	5.2	0.7	0.2	82.8	81.3
Jordan	2003	1070	65.2	11.9	5.3	65.2	17.5	0.0	0.0	59.9	70.3
	2007	745	73.3	9.1	3.3	73.3	13.0	0.7	0.5	76.8	70.1
Korea, Rep. of	2003	1342	88.2	5.5	1.0	88.2	5.2	0.0	0.0	87.1	89.2
	2007	601	90.2	3.4	1.2	90.2	5.1	0.2	0.0	89.0	91.2
Lebanon	2003	843	60.2	13.0	12.3	60.2	14.5	0.0	0.0	59.7	60.9
	2007	535	52.5	13.3	12.2	52.5	15.1	6.8	0.1	46.2	60.5

DIFF = Percent correct
 Because of missing gender information, some totals may appear inconsistent.

Science: Physics / Applying (S022019 - S03_05)
 Label: Transmission of sound on the moon
 Type: MC Key: C

COUNTRY	Year	N	DIFF	A	B	C	D	OMIT TED	NOT REACH ED	1.GIRL %Right	2.BOY %Right
Lithuania	2003	1135	87.6	4.6	0.5	87.6	7.3	0.0	0.0	84.2	91.1
	2007	567	83.3	4.6	2.2	83.3	9.2	0.7	0.0	81.0	85.4
Malaysia	2003	1307	74.3	19.0	2.1	74.3	4.6	0.0	0.0	69.5	78.8
	2007	633	62.8	25.5	4.5	62.8	6.2	0.2	0.7	55.3	71.3
Norway	2003	1007	64.2	17.9	3.0	64.2	14.8	0.0	0.0	64.8	63.6
	2007	659	61.8	19.6	3.3	61.8	12.9	2.2	0.2	60.9	62.7
Palestinian Nat'l Auth.	2003	1323	71.7	10.5	6.2	71.7	11.6	0.0	0.0	73.8	69.1
	2007	629	60.1	14.7	10.1	60.1	14.0	0.7	0.3	62.6	57.6
Romania	2003	1000	73.9	12.8	4.4	73.9	8.9	0.0	0.0	70.8	77.4
	2007	603	67.9	15.7	2.7	67.9	11.2	1.7	0.8	63.8	71.7
Russian Federation	2003	1120	72.2	10.0	3.1	72.2	14.7	0.0	0.0	67.7	76.6
	2007	637	72.6	9.5	3.5	72.6	11.8	1.9	0.7	69.3	76.2
Scotland	2003	857	71.8	17.5	1.6	71.8	9.1	0.0	0.0	66.6	77.4
	2007	593	70.7	16.1	2.1	70.7	9.3	1.6	0.3	67.0	74.2
Serbia	2003	1038	72.3	16.6	3.2	72.3	7.9	0.0	0.0	71.9	72.6
	2007	577	71.1	15.5	4.2	71.1	6.5	2.4	0.3	71.2	71.1
Singapore	2003	1498	84.1	9.4	1.3	84.1	5.2	0.0	0.0	81.6	86.6
	2007	664	77.1	12.7	3.9	77.1	5.7	0.6	0.0	77.2	77.0
Slovenia	2003	869	76.0	10.3	1.7	76.0	12.0	0.0	0.0	75.2	76.8
	2007	576	78.1	10.3	1.6	78.1	8.7	1.2	0.0	78.5	77.8
Sweden	2003	1034	82.5	8.5	1.6	82.5	7.4	0.0	0.0	78.0	87.2
	2007	739	81.2	8.8	1.9	81.2	6.8	1.0	0.3	78.5	83.6
Tunisia	2003	1118	54.5	21.4	3.9	54.5	20.2	0.0	0.0	51.4	58.0
	2007	583	51.5	23.0	4.0	51.5	16.7	3.7	1.0	49.2	54.3
United States	2003	2197	70.1	15.7	4.0	70.1	10.2	0.0	0.0	67.3	73.1
	2007	1050	71.2	16.3	3.2	71.2	8.7	0.3	0.3	66.5	75.9
International Avg.	2003	1162	72.3	12.7	4.5	72.3	10.6	0.0	0.0	70.1	74.4
	2007	627	68.3	13.6	4.9	68.3	10.7	1.9	0.5	67.2	69.5
Basque Country, Spain	2003	619	66.0	19.5	3.1	66.0	11.4	0.0	0.0	63.4	68.9
	2007	328	64.8	21.4	1.2	64.8	10.8	1.8	0.0	61.3	68.3
Ontario, Canada	2003	1024	76.1	13.4	1.3	76.1	9.1	0.0	0.0	73.1	79.6
	2007	493	75.1	11.9	1.4	75.1	9.6	1.7	0.3	76.0	74.3
Quebec, Canada	2003	1096	83.2	9.8	1.4	83.2	5.6	0.0	0.0	79.9	86.4
	2007	552	73.0	10.9	3.1	73.0	11.4	1.2	0.5	70.8	75.2

DIFF = Percent correct
 Because of missing gender information, some totals may appear inconsistent.

Science: Physics / Applying (S022002 - S03_06)
 Label: Heat conductivity experiment
 Type: MC Key: C

COUNTRY	Year	N	DIFF	A	B	C	D	OMIT TED	NOT REACH ED	1.GIRL %Right	2.BOY %Right
Armenia	2003	1362	45.4	22.5	6.4	45.4	25.7	0.0	0.0	44.2	46.7
	2007	670	50.4	16.3	3.3	50.4	21.7	7.2	1.1	50.1	50.7
Australia	2003	1181	59.8	14.2	2.8	59.8	23.2	0.0	0.0	58.1	61.4
	2007	585	60.5	12.8	4.2	60.5	21.5	0.6	0.4	57.1	63.1
Bahrain	2003	1005	47.8	15.9	6.2	47.8	30.2	0.0	0.0	51.4	43.9
	2007	611	46.7	12.5	8.5	46.7	31.2	0.5	0.6	49.0	44.4
Botswana	2003	1244	42.5	12.2	8.5	42.5	36.7	0.0	0.0	37.9	47.5
	2007	589	35.4	14.2	7.7	35.4	37.3	2.4	3.0	33.0	38.1
Bulgaria	2003	960	47.2	20.3	4.7	47.2	27.8	0.0	0.0	46.1	48.1
	2007	441	46.6	15.1	9.3	46.6	24.7	4.3	0.0	47.4	46.0
Chinese Taipei	2003	1338	72.0	4.3	5.3	72.0	18.4	0.0	0.0	69.0	74.7
	2007	584	74.9	2.9	4.4	74.9	17.4	0.5	0.0	69.2	79.9
Cyprus	2003	984	60.9	14.0	6.9	60.9	18.1	0.0	0.0	59.7	62.2
	2007	637	56.9	17.1	6.5	56.9	18.3	1.2	0.0	53.5	60.1
Egypt	2003	1736	43.7	19.8	11.6	43.7	25.0	0.0	0.0	39.9	47.0
	2007	934	38.1	17.0	11.1	38.1	32.6	1.0	0.2	35.8	40.5
England	2003	682	71.5	8.0	3.3	71.5	17.2	0.0	0.0	68.2	74.9
	2007	567	66.3	6.4	4.1	66.3	22.7	0.2	0.3	58.6	75.1
Ghana	2003	1218	24.7	26.5	15.1	24.7	33.7	0.0	0.0	23.0	26.0
	2007	746	28.0	25.2	11.1	28.0	31.0	2.5	2.1	27.2	28.7
Hong Kong SAR	2003	1238	59.4	4.7	5.5	59.4	30.4	0.0	0.0	53.6	65.4
	2007	483	55.2	5.7	6.7	55.2	31.5	0.5	0.4	51.8	58.7
Hungary	2003	808	52.8	19.6	2.5	52.8	25.1	0.0	0.0	46.7	59.5
	2007	582	56.9	16.5	4.0	56.9	22.0	0.5	0.1	47.1	67.2
Indonesia	2003	1409	32.9	6.2	2.9	32.9	58.0	0.0	0.0	26.6	39.8
	2007	597	21.0	7.0	3.2	21.0	65.7	2.0	1.2	20.4	21.7
Iran, Islamic Rep. of	2003	1213	48.7	11.1	3.5	48.7	36.6	0.0	0.0	49.1	48.5
	2007	560	45.3	8.8	2.7	45.3	39.9	2.2	1.1	49.1	42.0
Israel	2003	1060	67.4	9.6	5.0	67.4	18.0	0.0	0.0	64.0	71.0
	2007	478	59.6	11.6	6.3	59.6	18.0	2.7	1.8	59.7	59.5
Italy	2003	1018	46.7	12.9	6.6	46.7	33.8	0.0	0.0	40.7	52.7
	2007	621	44.7	13.0	5.1	44.7	33.9	1.8	1.5	36.2	51.9
Japan	2003	1201	65.7	10.2	7.9	65.7	16.2	0.0	0.0	64.7	66.6
	2007	611	67.7	9.3	6.6	67.7	15.3	0.8	0.2	67.9	67.5
Jordan	2003	1089	47.8	11.8	4.6	47.8	35.8	0.0	0.0	49.1	46.5
	2007	745	44.6	12.7	2.7	44.6	38.4	1.1	0.5	41.6	47.3
Korea, Rep. of	2003	1341	56.9	11.0	10.6	56.9	21.4	0.0	0.0	53.6	60.1
	2007	601	60.1	8.4	12.7	60.1	18.7	0.2	0.0	59.9	60.2
Lebanon	2003	859	39.1	24.3	15.3	39.1	21.3	0.0	0.0	40.4	37.4
	2007	535	33.9	20.5	13.4	33.9	28.5	3.6	0.1	33.4	34.6

DIFF = Percent correct
 Because of missing gender information, some totals may appear inconsistent.

Science: Physics / Applying (S022002 - S03_06)
 Label: Heat conductivity experiment
 Type: MC Key: C

COUNTRY	Year	N	DIFF	A	B	C	D	OMIT TED	NOT REACH ED	1.GIRL %Right	2.BOY %Right
Lithuania	2003	1136	46.0	25.5	5.5	46.0	23.0	0.0	0.0	45.1	47.0
	2007	568	40.1	20.0	9.1	40.1	30.1	0.7	0.0	37.9	42.0
Malaysia	2003	1307	66.6	8.1	2.1	66.6	23.2	0.0	0.0	62.9	70.0
	2007	633	54.7	9.7	4.1	54.7	30.3	0.2	0.9	56.2	53.1
Norway	2003	1006	48.8	15.8	5.7	48.8	29.7	0.0	0.0	48.3	49.3
	2007	659	44.2	17.2	6.1	44.2	31.4	1.1	0.2	44.1	44.2
Palestinian Nat'l Auth.	2003	1333	46.6	10.9	6.6	46.6	35.8	0.0	0.0	50.2	42.3
	2007	630	41.4	11.8	9.2	41.4	36.5	0.7	0.3	40.1	42.7
Romania	2003	1004	52.9	17.7	2.9	52.9	26.5	0.0	0.0	49.1	56.8
	2007	603	47.4	18.7	2.8	47.4	29.0	1.0	1.1	45.3	49.4
Russian Federation	2003	1121	58.5	20.0	5.1	58.5	16.4	0.0	0.0	56.0	60.9
	2007	637	63.3	16.0	3.1	63.3	15.8	0.9	0.9	58.2	68.8
Scotland	2003	859	56.5	12.2	4.1	56.5	27.2	0.0	0.0	53.4	59.7
	2007	593	60.9	10.4	4.8	60.9	23.3	0.3	0.3	55.4	66.3
Serbia	2003	1041	43.7	21.9	4.7	43.7	29.8	0.0	0.0	42.2	45.0
	2007	576	44.1	18.9	4.4	44.1	30.2	2.2	0.3	39.1	49.1
Singapore	2003	1501	81.1	1.8	2.0	81.1	15.1	0.0	0.0	78.6	83.6
	2007	664	78.6	2.6	2.4	78.6	16.1	0.3	0.0	78.3	78.9
Slovenia	2003	861	47.3	26.0	5.9	47.3	20.8	0.0	0.0	42.4	52.4
	2007	576	52.9	18.9	8.3	52.9	18.9	1.0	0.0	47.9	58.2
Sweden	2003	1038	61.7	17.3	4.2	61.7	16.9	0.0	0.0	57.1	66.6
	2007	739	61.3	14.4	3.0	61.3	19.8	0.9	0.5	63.6	59.3
Tunisia	2003	1134	43.9	8.3	3.8	43.9	44.0	0.0	0.0	39.5	48.9
	2007	583	34.2	9.4	3.1	34.2	50.6	1.5	1.3	29.3	39.9
United States	2003	2201	57.9	8.8	4.1	57.9	29.2	0.0	0.0	53.5	62.6
	2007	1050	57.0	9.8	4.6	57.0	28.1	0.1	0.3	55.0	59.1
International Avg.	2003	1166	52.9	14.3	5.8	52.9	27.0	0.0	0.0	50.4	55.3
	2007	627	50.7	13.1	6.0	50.7	28.2	1.4	0.6	48.4	53.0
Basque Country, Spain	2003	617	48.9	14.0	7.6	48.9	29.4	0.0	0.0	44.7	53.7
	2007	328	47.6	11.4	6.7	47.6	32.6	1.7	0.0	36.1	59.2
Ontario, Canada	2003	1026	64.5	9.7	3.3	64.5	22.5	0.0	0.0	63.6	65.5
	2007	493	61.0	8.3	4.2	61.0	25.3	0.8	0.4	57.2	64.6
Quebec, Canada	2003	1101	69.5	10.1	2.8	69.5	17.6	0.0	0.0	65.1	73.7
	2007	552	52.5	11.3	5.0	52.5	30.2	0.5	0.5	45.8	59.4

DIFF = Percent correct
 Because of missing gender information, some totals may appear inconsistent.

Science: Earth Science / Knowing (S022294 - S03_07)
 Label: Energy for Earth's water cycle
 Type: MC Key: B

COUNTRY	Year	N	DIFF	A	B	C	D	OMIT TED	NOT REACH ED	1.GIRL %Right	2.BOY %Right
Armenia	2003	1370	56.5	3.1	56.5	16.2	24.3	0.0	0.0	54.7	58.4
	2007	665	60.2	2.3	60.2	11.7	20.1	4.5	1.2	63.7	57.0
Australia	2003	1185	69.5	8.5	69.5	11.7	10.3	0.0	0.0	65.8	73.4
	2007	585	71.2	5.9	71.2	10.1	11.2	1.2	0.4	65.5	75.6
Bahrain	2003	1021	75.1	0.7	75.1	9.1	15.1	0.0	0.0	75.0	75.3
	2007	611	63.0	2.2	63.0	19.1	13.9	0.9	0.9	64.2	61.9
Botswana	2003	1216	70.1	6.0	70.1	5.8	18.2	0.0	0.0	70.9	69.1
	2007	592	61.3	6.1	61.3	8.4	19.4	1.0	3.8	60.7	61.9
Bulgaria	2003	966	78.0	4.2	78.0	12.2	5.6	0.0	0.0	74.5	80.9
	2007	442	65.1	5.2	65.1	17.1	9.7	2.9	0.0	65.1	65.0
Chinese Taipei	2003	1338	79.2	1.4	79.2	13.6	5.7	0.0	0.0	76.8	81.4
	2007	584	83.4	0.9	83.4	9.3	5.9	0.5	0.0	78.7	87.6
Cyprus	2003	988	61.6	3.4	61.6	8.9	26.2	0.0	0.0	57.2	66.0
	2007	637	60.3	2.2	60.3	14.2	23.0	0.3	0.0	59.0	61.5
Egypt	2003	1747	59.1	3.1	59.1	22.1	15.6	0.0	0.0	55.1	62.7
	2007	938	57.6	3.9	57.6	22.6	15.1	0.7	0.2	51.7	63.5
England	2003	682	68.2	3.3	68.2	19.1	9.5	0.0	0.0	61.8	74.8
	2007	567	61.2	5.4	61.2	20.8	11.6	0.7	0.3	57.7	65.2
Ghana	2003	1212	46.2	13.8	46.2	10.8	29.2	0.0	0.0	43.5	48.5
	2007	746	47.2	12.5	47.2	8.7	27.3	1.5	2.8	45.6	48.5
Hong Kong SAR	2003	1242	84.0	1.9	84.0	9.8	4.3	0.0	0.0	81.5	86.6
	2007	483	80.7	1.5	80.7	12.3	5.1	0.0	0.4	77.9	83.5
Hungary	2003	801	75.7	1.9	75.7	4.1	18.3	0.0	0.0	71.2	80.6
	2007	582	75.6	1.4	75.6	2.2	19.8	0.8	0.2	70.2	81.3
Indonesia	2003	1393	51.9	2.6	51.9	20.4	25.2	0.0	0.0	44.4	59.9
	2007	597	43.7	1.8	43.7	25.9	25.8	1.3	1.5	40.4	47.3
Iran, Islamic Rep. of	2003	1221	57.8	2.2	57.8	29.2	10.9	0.0	0.0	51.7	62.0
	2007	560	55.4	2.5	55.4	28.7	10.7	1.2	1.6	51.0	59.3
Israel	2003	1065	72.7	1.6	72.7	10.8	15.0	0.0	0.0	69.5	76.1
	2007	478	64.3	2.7	64.3	12.9	16.1	2.2	1.8	59.2	70.3
Italy	2003	1021	71.7	4.4	71.7	16.6	7.3	0.0	0.0	70.2	73.1
	2007	622	63.2	3.1	63.2	19.7	10.6	1.8	1.7	58.0	67.6
Japan	2003	1199	75.0	1.9	75.0	13.4	9.8	0.0	0.0	70.9	78.9
	2007	611	77.4	1.6	77.4	11.1	9.1	0.6	0.2	73.2	81.8
Jordan	2003	1087	78.3	0.9	78.3	11.0	9.9	0.0	0.0	81.4	75.3
	2007	745	71.0	1.4	71.0	12.6	13.7	0.9	0.5	67.1	74.6
Korea, Rep. of	2003	1340	71.5	4.2	71.5	10.6	13.7	0.0	0.0	63.8	78.8
	2007	601	61.6	4.1	61.6	14.8	19.3	0.2	0.0	55.6	67.0
Lebanon	2003	884	75.5	2.2	75.5	8.2	14.2	0.0	0.0	73.2	78.7
	2007	540	69.4	3.8	69.4	10.6	14.8	1.1	0.2	72.1	65.9

DIFF = Percent correct
 Because of missing gender information, some totals may appear inconsistent.

Science: Earth Science / Knowing (S022294 - S03_07)
 Label: Energy for Earth's water cycle
 Type: MC Key: B

COUNTRY	Year	N	DIFF	A	B	C	D	OMIT TED	NOT REACH ED	1.GIRL %Right	2.BOY %Right
Lithuania	2003	1144	64.4	3.4	64.4	19.2	13.1	0.0	0.0	59.3	69.6
	2007	567	59.3	7.3	59.3	15.9	16.7	0.8	0.0	53.9	64.0
Malaysia	2003	1306	71.5	0.4	71.5	19.6	8.5	0.0	0.0	66.4	76.3
	2007	633	57.2	0.6	57.2	26.4	14.0	0.8	0.9	54.0	60.8
Norway	2003	1007	72.3	8.1	72.3	11.1	8.5	0.0	0.0	69.4	75.1
	2007	659	72.6	6.8	72.6	9.2	10.4	0.9	0.2	72.9	72.3
Palestinian Nat'l Auth.	2003	1327	66.4	2.4	66.4	12.8	18.4	0.0	0.0	67.1	65.6
	2007	629	61.7	2.8	61.7	13.2	20.7	1.3	0.3	63.9	59.4
Romania	2003	1016	49.0	1.8	49.0	29.8	19.4	0.0	0.0	41.1	57.3
	2007	603	44.2	1.8	44.2	32.8	19.3	0.8	1.1	38.6	49.6
Russian Federation	2003	1136	73.1	3.6	73.1	8.3	15.0	0.0	0.0	65.9	80.2
	2007	637	67.8	3.2	67.8	12.6	13.7	1.9	0.9	63.2	72.7
Scotland	2003	856	62.4	5.8	62.4	17.0	14.8	0.0	0.0	59.6	65.3
	2007	593	59.4	5.3	59.4	19.3	14.8	0.9	0.3	53.4	65.2
Serbia	2003	1048	62.8	4.1	62.8	21.0	12.2	0.0	0.0	57.6	67.5
	2007	572	73.3	1.5	73.3	17.6	6.4	0.9	0.3	69.9	76.7
Singapore	2003	1498	81.0	1.8	81.0	11.3	5.8	0.0	0.0	77.5	84.5
	2007	664	75.7	1.7	75.7	12.3	10.3	0.0	0.0	73.6	77.5
Slovenia	2003	867	71.2	9.7	71.2	7.3	11.9	0.0	0.0	65.9	76.5
	2007	576	76.8	7.1	76.8	5.1	10.1	0.9	0.0	73.6	80.2
Sweden	2003	1036	70.8	11.3	70.8	6.9	11.0	0.0	0.0	68.2	73.5
	2007	739	72.2	10.5	72.2	6.3	10.0	0.4	0.5	74.3	70.4
Tunisia	2003	1147	56.9	1.0	56.9	22.7	19.4	0.0	0.0	47.6	67.8
	2007	583	53.3	1.0	53.3	20.4	19.9	3.8	1.5	46.5	61.5
United States	2003	2200	63.4	4.9	63.4	18.5	13.2	0.0	0.0	60.3	66.8
	2007	1050	61.4	5.3	61.4	19.5	13.2	0.2	0.3	59.6	63.1
International Avg.	2003	1169	68.0	3.9	68.0	14.2	13.9	0.0	0.0	64.2	71.7
	2007	627	64.5	3.8	64.5	15.3	14.6	1.2	0.7	61.6	67.3
Basque Country, Spain	2003	624	59.3	6.1	59.3	19.7	14.8	0.0	0.0	54.7	64.5
	2007	328	62.6	7.5	62.6	17.2	12.3	0.4	0.0	56.2	69.1
Ontario, Canada	2003	1024	79.4	2.7	79.4	8.7	9.1	0.0	0.0	77.4	81.7
	2007	493	76.5	4.9	76.5	7.3	9.8	1.0	0.4	77.4	75.8
Quebec, Canada	2003	1099	77.8	2.8	77.8	10.3	9.1	0.0	0.0	71.8	83.5
	2007	552	67.1	4.2	67.1	14.7	12.4	1.2	0.5	64.1	70.2

DIFF = Percent correct
 Because of missing gender information, some totals may appear inconsistent.

Science: Earth Science / Reasoning (S022244 - S03_09)
 Label: Acid rain from sulfur dioxide
 Type: CR Key: -

COUNTRY	Year	N	10	11	19	70	79	OMIT TED	NOT REACH ED	V1	1.GIRL %Right	2.BOY %Right
Armenia	2003	219	36.3	8.5	12.1	7.3	35.8	0.0	0.0	56.9	55.7	58.5
	2007	670	14.5	2.5	2.5	5.7	10.7	62.8	1.2	19.6	21.6	17.7
Australia	2003	857	5.0	29.7	0.8	26.5	37.9	0.0	0.0	35.5	29.9	40.6
	2007	584	5.2	27.1	0.0	12.7	23.0	31.5	0.4	32.4	23.4	39.3
Bahrain	2003	524	9.3	5.7	3.8	15.0	66.2	0.0	0.0	18.8	19.8	17.7
	2007	611	10.3	6.0	0.9	11.1	29.0	41.5	1.3	17.2	20.3	14.2
Botswana	2003	766	0.5	2.9	0.3	5.3	91.1	0.0	0.0	3.6	2.7	4.7
	2007	592	0.8	2.0	0.2	2.1	60.6	29.2	5.1	3.1	2.9	3.2
Bulgaria	2003	456	19.2	16.5	3.3	27.8	33.2	0.0	0.0	39.0	36.8	40.7
	2007	442	11.9	8.9	2.0	12.7	13.5	51.0	0.0	22.8	26.3	20.0
Chinese Taipei	2003	1057	54.1	5.0	0.2	7.3	33.3	0.0	0.0	59.4	57.4	61.2
	2007	584	6.6	23.8	5.1	6.8	38.5	19.2	0.0	35.5	33.4	37.3
Cyprus	2003	350	2.4	26.4	0.3	10.6	60.3	0.0	0.0	29.1	26.1	32.1
	2007	637	3.1	3.7	0.0	8.6	24.0	60.6	0.0	6.8	8.1	5.6
Egypt	2003	1396	11.2	9.1	1.5	9.9	68.3	0.0	0.0	21.8	21.5	22.0
	2007	941	9.0	7.7	0.0	11.0	49.0	22.7	0.5	16.8	16.5	17.0
England	2003	536	8.8	45.2	0.0	12.6	33.4	0.0	0.0	54.0	51.3	56.7
	2007	567	8.3	29.5	0.0	9.4	30.3	22.2	0.3	37.7	36.2	39.5
Ghana	2003	283	2.8	3.4	0.2	5.4	88.3	0.0	0.0	6.4	8.6	4.9
	2007	746	1.2	1.8	0.0	3.7	20.6	69.7	3.0	3.0	3.7	2.4
Hong Kong SAR	2003	991	7.4	39.2	0.1	19.1	34.3	0.0	0.0	46.6	42.2	51.4
	2007	483	8.8	32.6	0.9	4.7	34.5	18.2	0.4	42.3	41.0	43.6
Hungary	2003	539	14.2	41.5	0.0	14.9	29.4	0.0	0.0	55.7	47.4	63.4
	2007	582	10.9	22.6	0.0	12.7	19.3	34.2	0.2	33.5	27.2	40.3
Indonesia	2003	788	5.0	5.0	1.5	13.3	75.2	0.0	0.0	11.5	9.8	13.3
	2007	596	4.9	6.0	0.4	9.6	51.0	26.4	1.8	11.2	12.5	9.9
Iran, Islamic Rep. of	2003	622	5.3	15.6	2.6	28.2	48.3	0.0	0.0	23.5	18.3	26.7
	2007	564	6.0	8.6	0.6	19.3	22.3	40.9	2.2	15.2	17.5	13.2
Israel	2003	634	10.2	26.3	0.6	24.2	38.7	0.0	0.0	37.1	34.4	39.3
	2007	478	4.7	11.6	0.7	8.3	25.3	47.5	1.8	17.0	14.1	20.4
Italy	2003	565	8.8	24.4	1.4	22.9	42.5	0.0	0.0	34.6	31.4	37.5
	2007	624	4.8	21.3	0.9	8.6	18.9	43.4	2.1	27.0	22.6	30.7
Japan	2003	939	4.3	46.9	0.1	19.6	29.1	0.0	0.0	51.3	46.2	56.2
	2007	611	9.9	29.1	0.0	14.1	29.1	17.6	0.2	39.0	38.0	40.0
Jordan	2003	811	19.3	11.9	4.1	16.0	48.7	0.0	0.0	35.3	41.9	28.7
	2007	745	17.4	11.7	1.0	8.5	45.3	15.6	0.5	30.1	29.1	31.0
Korea, Rep. of	2003	1150	8.3	45.3	0.2	16.9	29.3	0.0	0.0	53.9	48.9	58.6
	2007	601	11.4	36.3	0.0	8.2	31.3	12.7	0.0	47.7	46.4	48.9
Lebanon	2003	307	28.5	6.6	3.1	26.8	35.0	0.0	0.0	38.1	33.7	44.8
	2007	542	4.1	3.6	1.5	4.9	25.3	60.4	0.2	9.2	8.6	9.9

V1 = Percent scoring 1 or better V2 = Percent scoring 2 or better
 Percent right for boys and girls corresponds to the percent obtaining the maximum score on the item.
 Because of missing gender information, some totals may appear inconsistent.

Science: Earth Science / Reasoning (S022244 - S03_09)
 Label: Acid rain from sulfur dioxide
 Type: CR Key: -

COUNTRY	Year	N	10	11	19	70	79	OMIT TED	NOT REACH ED	V1	1.GIRL %Right	2.BOY %Right
Lithuania	2003	829	8.7	27.8	1.3	31.6	30.6	0.0	0.0	37.8	35.4	40.3
	2007	569	7.1	32.4	2.7	13.9	20.2	23.8	0.0	42.2	40.4	43.8
Malaysia	2003	1015	5.5	17.9	0.7	22.4	53.5	0.0	0.0	24.1	20.3	27.5
	2007	633	3.1	10.2	2.5	8.8	52.5	21.8	1.2	15.8	16.1	15.4
Norway	2003	762	2.4	28.3	1.0	26.6	41.6	0.0	0.0	31.7	31.1	32.4
	2007	659	1.1	18.8	0.0	12.4	38.0	29.4	0.3	19.9	20.6	19.3
Palestinian Nat'l Auth.	2003	972	3.3	8.2	2.3	18.2	67.9	0.0	0.0	13.9	14.1	13.5
	2007	630	3.4	6.0	1.4	13.5	53.0	22.3	0.5	10.8	10.1	11.5
Romania	2003	434	19.5	20.9	2.3	18.2	39.1	0.0	0.0	42.7	43.9	41.6
	2007	603	11.5	4.7	2.9	6.3	18.8	54.8	1.1	19.1	20.4	17.9
Russian Federation	2003	641	13.4	26.0	1.7	24.3	34.7	0.0	0.0	41.0	36.5	44.9
	2007	637	14.8	10.1	0.0	11.7	25.2	37.2	1.0	24.9	22.7	27.3
Scotland	2003	592	6.0	39.4	0.0	12.5	42.1	0.0	0.0	45.4	36.5	54.3
	2007	593	3.1	24.4	0.0	6.3	31.4	34.3	0.4	27.6	23.0	32.0
Serbia	2003	456	6.0	20.9	1.1	17.7	54.3	0.0	0.0	28.0	28.6	27.4
	2007	577	5.9	9.9	0.2	12.4	23.1	48.1	0.4	16.0	15.0	16.9
Singapore	2003	1347	16.4	41.7	0.1	13.4	28.4	0.0	0.0	58.2	53.1	63.5
	2007	664	11.3	36.0	0.1	9.4	31.8	11.4	0.0	47.4	47.5	47.3
Slovenia	2003	605	10.2	28.9	0.2	26.2	34.6	0.0	0.0	39.2	41.2	37.0
	2007	576	1.9	36.2	0.0	8.5	32.0	21.4	0.0	38.1	36.7	39.6
Sweden	2003	727	4.1	27.5	0.0	21.5	46.9	0.0	0.0	31.7	28.7	34.6
	2007	739	2.2	22.1	0.0	6.4	35.8	32.8	0.7	24.3	21.8	26.6
Tunisia	2003	580	3.7	7.2	0.3	16.3	72.5	0.0	0.0	11.2	8.2	14.3
	2007	583	1.5	3.1	0.0	5.3	44.5	43.7	2.0	4.6	4.2	4.9
United States	2003	1875	6.9	33.9	0.5	18.8	40.0	0.0	0.0	41.2	35.8	47.2
	2007	1050	1.8	21.2	0.0	19.0	43.2	14.5	0.3	23.0	19.4	26.7
International Avg.	2003	746	11.1	22.5	1.4	18.1	46.8	0.0	0.0	35.1	32.7	37.5
	2007	628	6.8	16.1	0.8	9.6	31.8	34.0	0.9	23.7	22.7	24.6
Basque Country, Spain	2003	338	0.4	30.7	0.0	32.9	36.0	0.0	0.0	31.1	30.8	31.4
	2007	328	4.8	9.4	0.4	16.6	28.6	40.3	0.0	14.5	12.0	17.0
Ontario, Canada	2003	758	4.8	42.7	0.6	28.7	23.2	0.0	0.0	48.1	44.5	51.9
	2007	493	2.8	27.8	0.2	21.4	26.1	21.1	0.7	30.7	25.6	35.6
Quebec, Canada	2003	863	4.1	30.2	0.9	35.7	29.1	0.0	0.0	35.2	29.4	40.4
	2007	552	1.8	22.5	0.0	14.8	33.1	26.9	0.9	24.3	22.1	26.7

V1 = Percent scoring 1 or better V2 = Percent scoring 2 or better
 Percent right for boys and girls corresponds to the percent obtaining the maximum score on the item.
 Because of missing gender information, some totals may appear inconsistent.

Science: Biology / Applying (S022150 - S03_10)
 Label: Organization in living things
 Type: MC Key: A

COUNTRY	Year	N	DIFF	A	B	C	D	OMIT TED	NOT REACH ED	1.GIRL %Right	2.BOY %Right
Armenia	2003	1353	73.5	73.5	11.2	9.9	5.4	0.0	0.0	77.8	68.8
	2007	669	75.5	75.5	7.5	6.3	3.2	5.5	2.0	84.0	67.6
Australia	2003	1167	42.4	42.4	15.0	29.3	13.3	0.0	0.0	38.3	46.8
	2007	584	40.0	40.0	17.0	25.3	15.6	1.8	0.4	40.6	39.5
Bahrain	2003	970	29.1	29.1	22.9	31.3	16.7	0.0	0.0	30.3	27.7
	2007	611	36.3	36.3	21.7	25.9	13.7	1.1	1.3	39.9	32.8
Botswana	2003	1194	42.3	42.3	25.0	20.6	12.2	0.0	0.0	42.6	42.0
	2007	592	38.3	38.3	25.3	16.3	12.2	1.6	6.3	39.4	37.1
Bulgaria	2003	954	62.5	62.5	8.7	23.0	5.8	0.0	0.0	60.9	63.9
	2007	442	61.4	61.4	10.9	18.1	5.9	2.9	0.8	57.0	65.0
Chinese Taipei	2003	1340	64.0	64.0	21.6	9.0	5.3	0.0	0.0	62.3	65.6
	2007	584	66.5	66.5	21.5	5.9	5.9	0.1	0.0	66.4	66.7
Cyprus	2003	971	38.9	38.9	18.1	31.7	11.3	0.0	0.0	40.5	37.3
	2007	637	41.3	41.3	19.8	27.7	10.2	0.9	0.1	43.8	39.1
Egypt	2003	1432	36.3	36.3	21.8	24.8	17.0	0.0	0.0	35.9	36.6
	2007	940	42.6	42.6	20.3	21.3	14.7	0.6	0.5	45.5	39.8
England	2003	680	45.2	45.2	15.0	28.8	11.1	0.0	0.0	49.0	41.1
	2007	567	48.9	48.9	14.4	27.5	7.6	1.3	0.4	45.4	52.9
Ghana	2003	1187	34.6	34.6	27.5	23.5	14.5	0.0	0.0	31.4	37.1
	2007	746	39.1	39.1	28.1	17.2	9.7	2.3	3.6	39.3	39.0
Hong Kong SAR	2003	1238	44.5	44.5	19.3	19.2	16.9	0.0	0.0	44.4	44.7
	2007	483	38.6	38.6	16.9	21.3	22.4	0.4	0.4	36.6	40.7
Hungary	2003	808	78.7	78.7	6.3	13.1	2.0	0.0	0.0	79.1	78.2
	2007	582	80.1	80.1	6.8	11.0	1.6	0.2	0.3	81.0	79.1
Indonesia	2003	1374	49.1	49.1	19.1	22.1	9.7	0.0	0.0	48.7	49.4
	2007	596	46.3	46.3	18.5	19.7	11.1	1.9	2.5	50.1	42.2
Iran, Islamic Rep. of	2003	1212	46.6	46.6	19.8	20.0	13.6	0.0	0.0	48.0	45.7
	2007	564	45.8	45.8	16.6	20.5	13.4	1.1	2.5	52.2	40.2
Israel	2003	1036	54.8	54.8	16.2	22.6	6.5	0.0	0.0	54.5	55.1
	2007	478	42.0	42.0	16.7	26.0	9.2	3.8	2.4	42.4	41.4
Italy	2003	987	55.6	55.6	17.3	18.2	8.9	0.0	0.0	57.1	54.2
	2007	624	51.8	51.8	16.4	18.7	7.6	2.8	2.6	50.1	53.3
Japan	2003	1200	30.0	30.0	26.5	16.6	27.0	0.0	0.0	28.2	31.6
	2007	611	36.4	36.4	22.8	15.1	24.9	0.6	0.2	38.2	34.6
Jordan	2003	1082	40.8	40.8	19.2	25.8	14.1	0.0	0.0	47.0	35.0
	2007	745	46.6	46.6	16.0	24.4	10.8	1.2	0.9	47.3	46.1
Korea, Rep. of	2003	1341	71.2	71.2	10.4	11.8	6.6	0.0	0.0	71.8	70.6
	2007	601	71.8	71.8	11.0	12.3	4.9	0.2	0.0	73.0	70.7
Lebanon	2003	833	36.8	36.8	23.7	27.2	12.2	0.0	0.0	38.9	34.1
	2007	540	36.5	36.5	21.5	27.8	10.2	3.2	0.7	37.1	35.7

DIFF = Percent correct
 Because of missing gender information, some totals may appear inconsistent.

Science: Biology / Applying (S022150 - S03_10)
 Label: Organization in living things
 Type: MC Key: A

COUNTRY	Year	N	DIFF	A	B	C	D	OMIT TED	NOT REACH ED	1.GIRL %Right	2.BOY %Right
Lithuania	2003	1134	67.1	67.1	8.6	17.4	6.9	0.0	0.0	68.6	65.4
	2007	569	62.9	62.9	10.4	18.4	7.7	0.4	0.3	64.9	61.0
Malaysia	2003	1289	56.0	56.0	12.8	23.8	7.3	0.0	0.0	58.7	53.6
	2007	633	59.0	59.0	13.8	19.8	5.7	0.3	1.5	59.5	58.3
Norway	2003	987	32.0	32.0	26.4	32.1	9.5	0.0	0.0	30.8	33.2
	2007	659	35.0	35.0	24.9	27.6	9.9	2.2	0.3	34.7	35.4
Palestinian Nat'l Auth.	2003	1316	31.7	31.7	22.7	28.7	16.9	0.0	0.0	35.1	27.6
	2007	630	32.9	32.9	20.2	29.3	15.9	1.0	0.8	35.2	30.6
Romania	2003	1002	59.0	59.0	13.3	21.1	6.6	0.0	0.0	58.4	59.7
	2007	603	54.3	54.3	14.9	22.7	5.6	1.5	1.1	60.9	48.1
Russian Federation	2003	1108	60.4	60.4	11.6	22.0	6.0	0.0	0.0	61.6	59.2
	2007	637	67.0	67.0	6.7	18.6	4.7	1.6	1.4	68.2	65.7
Scotland	2003	846	35.2	35.2	17.8	33.1	13.8	0.0	0.0	33.5	37.1
	2007	593	34.4	34.4	20.9	27.5	13.3	3.5	0.4	30.2	38.5
Serbia	2003	1032	71.1	71.1	9.2	14.0	5.8	0.0	0.0	72.6	69.6
	2007	575	77.5	77.5	5.1	12.1	3.7	1.1	0.5	79.9	75.2
Singapore	2003	1497	60.1	60.1	9.8	23.0	7.2	0.0	0.0	57.2	63.1
	2007	664	58.4	58.4	13.7	20.6	6.4	0.6	0.3	61.6	55.4
Slovenia	2003	852	59.6	59.6	14.2	17.3	8.9	0.0	0.0	56.7	62.6
	2007	576	54.2	54.2	18.2	18.6	8.6	0.5	0.0	57.2	51.1
Sweden	2003	1019	52.0	52.0	21.1	21.1	5.9	0.0	0.0	52.7	51.2
	2007	739	46.7	46.7	23.9	19.7	7.0	1.9	0.8	46.2	47.2
Tunisia	2003	976	28.7	28.7	28.4	35.0	8.0	0.0	0.0	29.5	27.8
	2007	582	27.3	27.3	22.5	35.1	9.2	3.4	2.5	26.9	27.7
United States	2003	2189	53.2	53.2	12.4	24.0	10.4	0.0	0.0	48.7	57.9
	2007	1050	56.0	56.0	10.5	22.3	10.2	0.5	0.6	54.2	57.6
International Avg.	2003	1140	49.8	49.8	17.4	22.5	10.4	0.0	0.0	50.0	49.5
	2007	627	50.0	50.0	16.8	20.6	9.8	1.6	1.2	51.2	48.9
Basque Country, Spain	2003	610	38.0	38.0	34.2	18.0	9.8	0.0	0.0	36.3	39.8
	2007	328	39.4	39.4	30.5	20.2	7.7	1.9	0.4	32.0	46.8
Ontario, Canada	2003	1022	49.4	49.4	13.5	25.7	11.4	0.0	0.0	47.7	51.3
	2007	493	51.3	51.3	11.1	21.4	14.0	1.2	1.0	45.5	56.8
Quebec, Canada	2003	1085	39.2	39.2	16.2	27.7	16.9	0.0	0.0	37.3	41.0
	2007	552	30.4	30.4	22.0	25.4	19.5	1.5	1.2	24.5	36.4

DIFF = Percent correct
 Because of missing gender information, some totals may appear inconsistent.

Science: Physics / Reasoning (S022042 - S03_11)
 Label: Graph interpretation of bicycle ride
 Type: MC Key: B

COUNTRY	Year	N	DIFF	A	B	C	D	OMIT TED	NOT REACH ED	1.GIRL %Right	2.BOY %Right
Armenia	2003	1337	42.0	35.8	42.0	14.3	7.9	0.0	0.0	39.2	45.1
	2007	668	45.6	26.4	45.6	8.5	7.9	9.5	2.1	46.7	44.6
Australia	2003	1175	67.6	20.3	67.6	6.8	5.3	0.0	0.0	63.4	72.0
	2007	584	57.5	24.9	57.5	8.6	7.1	1.6	0.4	58.4	56.7
Bahrain	2003	990	23.8	44.0	23.8	19.2	13.1	0.0	0.0	20.9	26.8
	2007	611	24.6	48.0	24.6	10.2	14.3	1.7	1.3	19.7	29.3
Botswana	2003	1196	13.4	46.9	13.4	18.0	21.6	0.0	0.0	13.0	13.9
	2007	590	13.4	39.3	13.4	17.3	19.8	3.7	6.5	15.0	11.7
Bulgaria	2003	960	51.1	30.8	51.1	12.3	5.8	0.0	0.0	47.7	54.1
	2007	442	44.8	33.6	44.8	9.8	7.6	3.1	1.1	43.4	46.1
Chinese Taipei	2003	1337	70.8	14.2	70.8	8.7	6.2	0.0	0.0	69.3	72.2
	2007	584	68.7	16.8	68.7	7.1	7.2	0.1	0.0	64.4	72.6
Cyprus	2003	982	46.1	32.2	46.1	13.7	7.9	0.0	0.0	43.6	48.7
	2007	637	46.1	32.7	46.1	12.2	7.8	1.1	0.1	45.2	46.9
Egypt	2003	1735	27.4	36.0	27.4	17.3	19.3	0.0	0.0	25.1	29.5
	2007	940	27.5	38.8	27.5	17.5	14.4	1.3	0.5	27.4	27.6
England	2003	683	72.0	18.4	72.0	4.8	4.8	0.0	0.0	67.9	76.4
	2007	567	69.5	20.6	69.5	5.7	3.5	0.2	0.4	70.4	68.6
Ghana	2003	1186	14.8	50.7	14.8	20.7	13.8	0.0	0.0	17.6	12.5
	2007	746	15.8	46.6	15.8	16.2	15.6	2.2	3.6	17.8	14.2
Hong Kong SAR	2003	1239	82.4	9.3	82.4	3.3	5.0	0.0	0.0	80.2	84.6
	2007	483	75.9	12.4	75.9	5.2	5.7	0.4	0.4	77.1	74.6
Hungary	2003	809	72.3	18.0	72.3	4.9	4.9	0.0	0.0	69.4	75.4
	2007	582	64.3	25.6	64.3	4.0	5.6	0.1	0.3	61.6	67.3
Indonesia	2003	1365	37.4	32.7	37.4	18.5	11.4	0.0	0.0	34.8	40.2
	2007	597	25.5	43.7	25.5	14.6	11.7	1.9	2.6	24.8	26.1
Iran, Islamic Rep. of	2003	1192	25.7	51.0	25.7	13.6	9.7	0.0	0.0	20.9	29.1
	2007	565	25.9	48.7	25.9	12.9	7.8	2.1	2.5	23.7	27.8
Israel	2003	1051	60.0	25.8	60.0	7.5	6.7	0.0	0.0	55.9	64.3
	2007	478	44.5	27.9	44.5	10.9	11.8	2.5	2.4	42.7	46.7
Italy	2003	1001	47.7	36.3	47.7	8.0	7.9	0.0	0.0	42.4	52.9
	2007	623	40.9	37.2	40.9	9.3	7.6	2.4	2.6	37.0	44.3
Japan	2003	1199	83.6	7.4	83.6	3.7	5.3	0.0	0.0	82.8	84.3
	2007	611	78.2	10.1	78.2	6.9	4.1	0.6	0.2	76.5	79.8
Jordan	2003	1071	26.3	44.3	26.3	15.6	13.8	0.0	0.0	24.4	28.0
	2007	745	29.4	41.8	29.4	16.0	10.7	1.2	0.9	26.2	32.2
Korea, Rep. of	2003	1336	70.9	16.8	70.9	8.1	4.2	0.0	0.0	70.2	71.5
	2007	601	74.0	15.8	74.0	7.6	2.5	0.2	0.0	74.0	73.9
Lebanon	2003	857	22.9	36.9	22.9	18.9	21.3	0.0	0.0	20.6	26.2
	2007	539	23.0	32.1	23.0	17.7	21.3	5.2	0.7	21.8	24.6

DIFF = Percent correct
 Because of missing gender information, some totals may appear inconsistent.

Science: Physics / Reasoning (S022042 - S03_11)
 Label: Graph interpretation of bicycle ride
 Type: MC Key: B

COUNTRY	Year	N	DIFF	A	B	C	D	OMIT TED	NOT REACH ED	1.GIRL %Right	2.BOY %Right
Lithuania	2003	1140	67.1	19.4	67.1	5.5	8.0	0.0	0.0	64.8	69.5
	2007	568	59.4	24.0	59.4	7.1	8.3	0.9	0.3	52.7	65.4
Malaysia	2003	1292	55.7	23.3	55.7	13.2	7.8	0.0	0.0	51.6	59.4
	2007	633	49.2	24.4	49.2	12.8	11.1	0.9	1.5	48.8	49.7
Norway	2003	1006	58.1	27.9	58.1	7.3	6.6	0.0	0.0	53.4	62.6
	2007	659	48.8	33.2	48.8	5.6	9.9	1.9	0.7	48.2	49.4
Palestinian Nat'l Auth.	2003	1323	23.2	51.2	23.2	15.8	9.8	0.0	0.0	22.1	24.6
	2007	630	24.0	46.1	24.0	16.1	10.6	2.4	0.8	20.2	27.8
Romania	2003	1013	41.3	45.5	41.3	7.4	5.9	0.0	0.0	35.5	47.2
	2007	602	33.5	48.9	33.5	10.3	3.6	2.6	1.1	29.7	37.1
Russian Federation	2003	1114	57.2	23.5	57.2	10.9	8.4	0.0	0.0	56.8	57.7
	2007	637	60.3	19.7	60.3	10.2	7.8	0.6	1.5	56.3	64.5
Scotland	2003	852	65.9	21.4	65.9	5.3	7.4	0.0	0.0	61.5	70.7
	2007	593	57.8	29.1	57.8	4.5	7.7	0.5	0.4	56.4	59.2
Serbia	2003	1043	58.6	23.9	58.6	10.1	7.4	0.0	0.0	57.9	59.2
	2007	576	56.1	25.3	56.1	8.1	8.3	1.8	0.5	48.9	63.1
Singapore	2003	1500	78.4	10.4	78.4	5.3	5.9	0.0	0.0	79.5	77.2
	2007	664	71.4	13.3	71.4	8.4	6.1	0.4	0.3	74.5	68.7
Slovenia	2003	872	56.4	25.8	56.4	9.3	8.5	0.0	0.0	51.7	61.2
	2007	576	62.6	24.4	62.6	4.9	7.2	0.8	0.0	60.3	65.1
Sweden	2003	1030	74.7	15.0	74.7	4.2	6.0	0.0	0.0	71.9	77.7
	2007	739	71.4	16.6	71.4	4.1	6.1	1.0	0.8	68.8	73.7
Tunisia	2003	1145	37.6	30.9	37.6	18.1	13.3	0.0	0.0	31.7	44.3
	2007	583	31.5	37.1	31.5	14.3	12.3	2.2	2.6	26.5	37.4
United States	2003	2193	60.9	20.5	60.9	8.8	9.8	0.0	0.0	56.8	65.3
	2007	1050	58.2	20.9	58.2	10.0	9.7	0.6	0.6	55.0	61.4
International Avg.	2003	1158	51.3	28.7	51.3	10.9	9.1	0.0	0.0	48.6	54.1
	2007	627	47.9	29.9	47.9	10.1	9.2	1.7	1.2	46.1	49.6
Basque Country, Spain	2003	614	61.5	24.4	61.5	6.3	7.8	0.0	0.0	57.7	65.7
	2007	328	60.4	22.2	60.4	4.8	10.4	1.7	0.4	54.6	66.2
Ontario, Canada	2003	1006	62.4	19.5	62.4	9.2	8.8	0.0	0.0	61.8	63.2
	2007	493	55.9	19.7	55.9	10.8	10.8	1.6	1.3	49.5	61.8
Quebec, Canada	2003	1093	77.5	13.0	77.5	3.8	5.7	0.0	0.0	73.5	81.3
	2007	552	65.7	15.7	65.7	7.6	7.9	1.6	1.5	62.1	69.5

DIFF = Percent correct
 Because of missing gender information, some totals may appear inconsistent.

Science: Biology / Reasoning (S022289 - S03_12)
 Label: Heart rate increasing with exercise
 Type: CR Key: -

COUNTRY	Year	N	20	29	10	11	12	19	70	79	OMIT TED	NOT REACH ED	V1	V2	1.GIRL %Right	2.BOY %Right
Armenia	2003	773	8.6	0.8	17.5	32.3	1.5	9.5	8.7	21.0	0.0	0.0	70.3	9.5	8.9	10.2
	2007	668	10.0	11.3	12.6	12.2	0.8	3.8	1.0	13.0	31.9	3.4	50.7	21.3	22.5	20.3
Australia	2003	1143	17.7	0.4	12.3	49.3	1.0	0.1	10.6	8.4	0.0	0.0	80.9	18.1	17.7	18.5
	2007	584	13.2	0.0	10.3	46.0	0.7	0.2	8.9	12.6	7.8	0.4	70.3	13.2	14.5	12.2
Bahrain	2003	858	4.7	1.2	10.9	20.4	3.2	2.5	29.9	27.3	0.0	0.0	42.8	5.9	5.8	5.9
	2007	611	6.8	0.3	9.5	18.4	1.2	2.8	28.6	18.3	12.1	1.9	39.1	7.2	11.5	3.1
Botswana	2003	1046	1.6	0.0	2.8	24.5	0.5	1.4	5.6	63.6	0.0	0.0	30.8	1.6	1.3	1.9
	2007	590	2.2	0.1	2.7	17.6	0.1	0.3	7.6	51.2	9.3	8.8	23.1	2.3	2.1	2.6
Bulgaria	2003	747	5.1	0.1	5.6	37.0	1.0	3.8	32.0	15.5	0.0	0.0	52.6	5.2	5.4	5.0
	2007	442	6.6	0.0	5.6	16.5	0.1	4.6	25.2	10.9	28.9	1.7	33.3	6.6	3.7	9.0
Chinese Taipei	2003	1201	14.5	0.2	20.2	29.8	0.2	0.3	13.7	21.2	0.0	0.0	65.1	14.6	12.8	16.4
	2007	584	17.3	0.7	14.0	18.8	0.3	2.8	17.1	17.0	11.9	0.0	54.0	18.0	14.6	21.0
Cyprus	2003	831	5.0	0.0	15.3	17.1	0.5	0.1	40.5	21.5	0.0	0.0	38.0	5.0	4.8	5.2
	2007	637	2.2	0.6	9.4	23.3	0.6	4.4	29.3	16.0	13.9	0.4	40.5	2.8	3.4	2.3
Egypt	2003	1560	3.0	0.3	4.3	9.7	0.7	1.3	44.9	35.8	0.0	0.0	19.3	3.3	2.6	4.0
	2007	941	2.4	0.0	7.0	9.6	0.7	0.2	42.5	24.2	12.8	0.6	19.8	2.4	1.9	2.9
England	2003	672	17.1	0.0	21.2	38.4	0.7	0.9	4.6	17.0	0.0	0.0	78.4	17.1	19.2	14.9
	2007	567	20.2	0.0	10.8	43.2	0.7	2.9	5.8	12.2	3.8	0.4	77.8	20.2	19.6	20.9
Ghana	2003	684	1.4	0.2	2.1	20.9	0.4	1.8	5.6	67.6	0.0	0.0	26.9	1.6	0.7	2.4
	2007	746	0.6	0.0	2.6	7.1	0.2	0.0	10.5	39.6	34.9	4.6	10.4	0.6	0.4	0.7
Hong Kong SAR	2003	1091	17.3	0.0	24.2	30.6	0.5	0.4	12.2	14.7	0.0	0.0	73.0	17.3	13.2	21.7
	2007	483	13.7	0.0	18.0	29.3	0.9	0.0	1.7	24.2	11.8	0.4	61.9	13.7	13.6	13.8
Hungary	2003	729	23.3	0.0	20.6	35.8	1.0	0.0	13.8	5.5	0.0	0.0	80.7	23.3	21.7	25.0
	2007	582	11.9	0.0	13.9	28.4	1.5	0.1	22.9	12.1	8.9	0.3	55.8	11.9	11.4	12.5
Indonesia	2003	1240	4.2	0.4	11.4	20.6	1.3	2.2	17.8	42.1	0.0	0.0	40.1	4.6	4.6	4.6
	2007	597	3.8	0.0	11.6	20.4	0.8	0.4	19.6	34.5	5.9	3.1	36.9	3.8	2.6	4.9
Iran, Islamic Rep. of	2003	1074	7.8	1.8	15.9	24.0	0.5	2.1	32.4	15.6	0.0	0.0	52.1	9.6	9.7	9.5
	2007	565	7.1	0.2	19.3	18.4	2.3	0.4	24.1	13.8	10.6	3.9	47.7	7.3	7.4	7.1
Israel	2003	921	13.3	0.0	13.5	31.7	0.3	0.5	26.6	14.1	0.0	0.0	59.3	13.3	7.4	19.4
	2007	478	7.3	0.2	9.2	27.0	1.4	0.2	20.2	15.1	16.9	2.6	45.2	7.5	6.0	9.2
Italy	2003	927	18.2	0.4	19.8	23.8	1.0	1.4	26.2	9.3	0.0	0.0	64.5	18.5	16.1	21.0
	2007	624	10.4	0.2	14.5	26.5	1.1	9.3	13.2	12.3	9.3	3.2	62.0	10.5	7.5	13.1
Japan	2003	1106	13.6	0.0	31.1	23.4	0.3	0.2	18.1	13.4	0.0	0.0	68.6	13.6	13.1	14.1
	2007	611	19.8	0.0	27.5	17.4	0.2	0.0	12.0	15.1	7.8	0.2	64.9	19.8	19.4	20.1
Jordan	2003	970	18.9	2.3	10.8	17.9	0.4	2.1	20.2	27.5	0.0	0.0	52.3	21.2	24.5	17.8
	2007	745	6.8	0.2	15.0	26.4	0.2	0.5	8.6	32.7	8.7	0.9	49.1	7.0	7.2	6.9
Korea, Rep. of	2003	1276	11.6	0.0	35.9	16.1	1.7	0.2	24.8	9.7	0.0	0.0	65.5	11.6	9.3	13.8
	2007	601	13.1	0.0	37.9	15.3	1.8	0.0	21.2	7.8	3.0	0.0	68.0	13.1	10.7	15.2
Lebanon	2003	646	7.1	0.6	20.6	17.3	2.5	3.0	24.0	25.0	0.0	0.0	51.1	7.7	9.6	5.1
	2007	542	3.8	0.1	12.2	14.9	1.2	3.2	17.6	25.3	19.3	2.5	35.4	3.9	3.0	5.1

V1 = Percent scoring 1 or better V2 = Percent scoring 2 or better
 Percent right for boys and girls corresponds to the percent obtaining the maximum score on the item.
 Because of missing gender information, some totals may appear inconsistent.

Science: Biology / Reasoning (S022289 - S03_12)
 Label: Heart rate increasing with exercise
 Type: CR Key: -

COUNTRY	Year	N	20	29	10	11	12	19	70	79	OMIT TED	NOT REACH ED	V1	V2	1.GIRL %Right	2.BOY %Right
Lithuania	2003	1028	11.7	1.2	12.5	35.5	0.3	1.0	23.4	14.4	0.0	0.0	62.3	12.9	12.6	13.3
	2007	569	12.7	0.0	9.6	33.8	0.4	0.4	20.3	13.3	9.1	0.3	57.0	12.7	12.7	12.8
Malaysia	2003	1145	4.7	0.7	18.1	28.5	1.5	1.6	18.2	26.7	0.0	0.0	55.1	5.4	5.7	5.1
	2007	633	4.7	0.2	9.4	14.8	0.8	2.1	10.8	43.3	12.3	1.6	31.9	4.8	3.3	6.6
Norway	2003	955	10.2	0.0	12.7	38.7	2.5	1.0	26.3	8.6	0.0	0.0	65.1	10.2	9.2	11.2
	2007	659	7.6	0.0	13.5	36.7	2.1	0.3	23.6	8.0	7.5	0.8	60.1	7.6	8.5	6.7
Palestinian Nat'l Auth.	2003	1185	3.9	1.0	7.2	24.5	0.4	1.4	36.3	25.3	0.0	0.0	38.4	4.9	3.7	6.4
	2007	630	5.2	0.4	6.7	16.0	0.9	2.3	14.0	39.8	13.4	1.4	31.5	5.6	4.9	6.4
Romania	2003	880	7.3	0.2	10.2	21.4	0.6	1.1	37.8	21.5	0.0	0.0	40.7	7.5	6.9	8.1
	2007	602	4.3	1.3	7.0	26.4	1.8	14.6	27.0	4.8	11.4	1.4	55.4	5.6	5.3	5.8
Russian Federation	2003	930	9.0	0.3	15.3	35.6	0.3	0.3	27.7	11.5	0.0	0.0	60.8	9.2	5.4	12.6
	2007	637	10.7	0.2	11.2	31.2	0.4	0.0	28.2	6.9	9.7	1.5	53.7	10.9	10.0	11.9
Scotland	2003	821	9.0	0.0	13.4	41.5	1.3	0.5	9.7	24.6	0.0	0.0	65.8	9.0	8.5	9.7
	2007	593	10.0	0.0	6.8	43.3	2.1	2.3	15.3	14.2	5.6	0.4	64.5	10.0	9.0	10.9
Serbia	2003	870	7.1	0.5	9.0	22.0	0.8	1.4	40.9	18.3	0.0	0.0	40.7	7.5	7.8	7.3
	2007	577	5.8	0.0	9.7	21.4	0.6	0.6	36.4	10.6	14.3	0.6	38.1	5.8	4.2	7.4
Singapore	2003	1453	29.4	0.0	33.7	19.6	1.1	0.1	4.5	11.5	0.0	0.0	83.9	29.4	26.7	32.1
	2007	664	27.5	0.0	38.1	15.4	1.2	0.0	6.3	7.9	3.0	0.6	82.1	27.5	27.5	27.5
Slovenia	2003	827	11.2	0.6	19.3	24.6	1.4	1.2	31.0	10.5	0.0	0.0	58.4	11.9	12.5	11.2
	2007	576	8.4	0.2	13.6	26.6	1.4	0.1	35.6	11.8	2.4	0.0	50.3	8.5	7.4	9.7
Sweden	2003	999	25.8	0.0	21.7	32.4	0.5	0.1	13.5	6.0	0.0	0.0	80.5	25.8	25.3	26.3
	2007	739	29.8	0.0	19.6	26.0	0.5	0.4	12.9	4.7	4.6	1.4	76.3	29.8	28.6	30.9
Tunisia	2003	1007	2.6	0.0	2.9	32.7	0.5	1.1	22.5	37.7	0.0	0.0	39.8	2.6	2.0	3.3
	2007	583	1.7	1.1	5.5	29.6	1.0	0.8	20.9	27.6	9.2	2.7	39.7	2.8	3.0	2.6
United States	2003	2128	17.4	0.4	11.6	42.9	1.1	0.9	15.8	9.9	0.0	0.0	74.3	17.8	16.5	19.2
	2007	1050	16.1	0.0	12.2	43.2	1.4	0.0	17.3	6.2	2.8	0.9	72.9	16.1	16.9	15.4
International Avg.	2003	1022	11.0	0.4	15.3	27.9	1.0	1.4	21.8	21.3	0.0	0.0	56.9	11.4	10.6	12.2
	2007	628	9.8	0.5	12.9	24.3	0.9	1.8	18.4	18.4	11.4	1.6	50.3	10.3	9.8	10.8
Basque Country, Spain	2003	564	11.5	0.0	10.4	35.4	1.7	1.8	29.4	10.0	0.0	0.0	60.7	11.5	10.4	12.8
	2007	328	2.5	0.0	13.6	37.5	1.2	0.0	21.7	17.4	5.0	1.1	54.8	2.5	0.0	5.0
Ontario, Canada	2003	981	22.2	0.1	12.6	47.8	1.1	0.3	11.4	4.4	0.0	0.0	84.1	22.4	20.2	25.0
	2007	493	14.2	0.0	6.7	48.8	1.7	0.0	13.7	8.1	4.5	2.3	71.4	14.2	13.0	15.3
Quebec, Canada	2003	1025	12.0	0.2	14.8	35.9	6.1	1.1	18.7	11.3	0.0	0.0	70.1	12.2	11.5	12.8
	2007	552	7.2	0.2	10.1	32.7	2.3	0.1	15.4	24.8	5.4	2.0	52.4	7.3	6.0	8.6

V1 = Percent scoring 1 or better V2 = Percent scoring 2 or better
 Percent right for boys and girls corresponds to the percent obtaining the maximum score on the item.
 Because of missing gender information, some totals may appear inconsistent.

Science: Physics / Applying (S022069 - S03_13)
 Label: Temperature of boiling water
 Type: CR Key: -

COUNTRY	Year	N	10	19	70	71	72	79	OMIT TED	NOT REACH ED	V1	1.GIRL %Right	2.BOY %Right
Armenia	2003	856	45.1	0.4	27.9	18.6	3.9	4.1	0.0	0.0	45.5	48.5	42.2
	2007	669	36.2	0.0	20.3	12.1	2.4	2.6	19.0	7.3	36.2	38.7	34.0
Australia	2003	1118	47.3	0.2	9.8	34.1	4.6	3.9	0.0	0.0	47.6	42.1	53.2
	2007	584	34.5	0.0	9.6	43.0	3.3	2.5	6.0	1.1	34.5	29.7	38.2
Bahrain	2003	846	14.4	0.0	10.8	49.4	6.5	19.0	0.0	0.0	14.4	14.2	14.5
	2007	611	13.1	0.0	7.6	43.5	7.9	10.8	11.4	5.6	13.1	17.9	8.5
Botswana	2003	1120	27.9	0.4	18.5	18.2	13.4	21.7	0.0	0.0	28.3	26.9	29.8
	2007	590	20.4	0.0	13.8	15.6	11.3	21.9	5.4	11.6	20.4	21.7	18.9
Bulgaria	2003	799	46.0	0.0	17.3	28.0	5.9	2.9	0.0	0.0	46.0	46.1	45.9
	2007	442	20.8	0.0	20.9	25.8	3.8	2.2	18.2	8.3	20.8	24.6	17.6
Chinese Taipei	2003	1286	67.9	0.0	6.2	21.8	3.0	1.0	0.0	0.0	67.9	69.2	66.8
	2007	584	64.3	0.0	3.1	24.9	1.7	2.2	3.1	0.7	64.3	63.2	65.3
Cyprus	2003	793	28.8	0.1	22.1	37.3	6.5	5.2	0.0	0.0	28.9	26.2	31.9
	2007	637	30.6	0.0	13.9	31.0	5.8	3.5	11.3	3.9	30.6	32.4	29.0
Egypt	2003	1600	33.7	0.0	10.0	22.0	6.5	27.8	0.0	0.0	33.7	35.5	32.0
	2007	941	16.6	0.0	12.7	18.1	4.7	34.2	10.3	3.5	16.6	17.7	15.4
England	2003	663	48.5	0.0	9.7	32.9	5.6	3.4	0.0	0.0	48.5	48.8	48.1
	2007	567	43.0	0.0	7.6	35.8	5.6	2.9	4.4	0.8	43.0	42.6	43.4
Ghana	2003	793	8.8	0.5	12.2	25.6	16.5	36.4	0.0	0.0	9.3	7.5	10.9
	2007	746	10.7	0.0	7.8	16.7	9.2	20.2	19.4	16.0	10.7	8.3	12.7
Hong Kong SAR	2003	1207	51.4	0.0	12.3	30.6	3.7	1.9	0.0	0.0	51.4	52.6	50.2
	2007	483	37.5	0.0	11.2	39.3	3.9	1.9	4.8	1.4	37.5	35.8	39.4
Hungary	2003	760	56.9	0.2	7.4	31.5	3.1	0.8	0.0	0.0	57.1	53.5	61.2
	2007	582	45.8	0.0	9.2	33.8	2.8	2.9	4.6	1.0	45.8	43.1	48.7
Indonesia	2003	1136	26.9	0.0	10.0	38.6	10.1	14.3	0.0	0.0	26.9	24.0	30.2
	2007	597	18.7	0.0	8.2	39.4	6.3	13.1	8.7	5.6	18.7	17.3	20.2
Iran, Islamic Rep. of	2003	979	38.7	0.5	10.2	35.0	4.4	11.2	0.0	0.0	39.2	39.4	39.1
	2007	565	28.6	0.0	6.5	34.0	4.4	10.2	9.8	6.5	28.6	25.3	31.5
Israel	2003	921	39.3	0.0	8.9	39.8	5.3	6.7	0.0	0.0	39.3	36.0	42.8
	2007	478	25.7	0.0	6.6	34.6	4.5	7.8	13.4	7.4	25.7	22.9	29.1
Italy	2003	883	29.6	0.0	10.4	52.2	5.1	2.7	0.0	0.0	29.6	25.4	33.6
	2007	624	20.9	0.0	7.8	48.1	4.8	4.7	9.0	4.8	20.9	19.7	21.9
Japan	2003	1166	67.3	0.0	6.3	23.0	2.9	0.5	0.0	0.0	67.3	66.3	68.2
	2007	611	63.3	0.0	5.7	23.1	4.3	0.9	2.0	0.8	63.3	64.8	61.7
Jordan	2003	978	35.2	0.2	12.4	24.9	10.7	16.6	0.0	0.0	35.5	37.5	33.5
	2007	745	30.9	0.0	9.5	29.7	6.8	12.9	6.9	3.3	30.9	36.9	25.5
Korea, Rep. of	2003	1295	75.4	0.0	5.3	16.3	1.9	1.1	0.0	0.0	75.4	74.0	76.7
	2007	601	73.8	0.0	5.5	14.8	2.5	0.8	1.7	1.0	73.8	75.4	72.3
Lebanon	2003	704	43.4	0.8	25.1	21.6	5.2	4.0	0.0	0.0	44.2	42.9	46.0
	2007	542	23.1	0.0	22.4	26.0	9.4	3.3	8.6	7.2	23.1	23.3	22.8

V1 = Percent scoring 1 or better V2 = Percent scoring 2 or better
 Percent right for boys and girls corresponds to the percent obtaining the maximum score on the item.
 Because of missing gender information, some totals may appear inconsistent.

Science: Physics / Applying (S022069 - S03_13)
 Label: Temperature of boiling water
 Type: CR Key: -

COUNTRY	Year	N	10	19	70	71	72	79	OMIT TED	NOT REACH ED	V1	1.GIRL %Right	2.BOY %Right
Lithuania	2003	1083	56.3	0.2	17.0	24.1	1.4	1.1	0.0	0.0	56.5	56.5	56.4
	2007	569	50.0	0.0	8.6	31.7	1.1	0.8	6.1	1.6	50.0	49.9	50.2
Malaysia	2003	1235	65.9	0.5	12.9	11.9	3.8	5.0	0.0	0.0	66.4	66.7	66.1
	2007	633	48.4	0.0	14.2	14.6	6.5	8.4	4.3	3.5	48.4	49.6	47.1
Norway	2003	970	54.6	0.0	12.3	21.0	7.9	4.2	0.0	0.0	54.6	60.0	49.3
	2007	659	44.7	0.0	11.6	24.1	7.9	5.1	5.3	1.3	44.7	48.0	41.5
Palestinian Nat'l Auth.	2003	1205	27.8	0.1	14.1	29.5	12.4	16.1	0.0	0.0	27.9	27.0	29.1
	2007	630	18.6	0.0	11.1	22.4	7.0	27.3	8.3	5.2	18.6	19.8	17.5
Romania	2003	886	21.1	0.0	18.6	18.1	37.3	5.0	0.0	0.0	21.1	22.8	19.3
	2007	602	13.0	0.0	16.2	20.4	33.8	4.8	8.6	3.2	13.0	14.3	11.8
Russian Federation	2003	1008	53.6	0.0	12.0	27.4	4.8	2.3	0.0	0.0	53.6	53.4	53.7
	2007	637	50.3	0.0	9.8	25.0	3.9	1.9	5.9	3.2	50.3	50.0	50.7
Scotland	2003	839	48.6	0.1	12.1	32.7	4.7	1.7	0.0	0.0	48.8	49.5	48.0
	2007	593	35.9	0.0	12.0	39.1	4.7	2.2	4.6	1.5	35.9	35.9	35.8
Serbia	2003	921	39.8	0.0	18.8	36.2	3.4	1.9	0.0	0.0	39.8	38.5	41.0
	2007	578	31.7	0.0	14.6	38.0	2.2	0.5	10.6	2.5	31.7	35.0	28.4
Singapore	2003	1470	71.5	0.0	10.3	11.1	5.5	1.6	0.0	0.0	71.5	74.1	68.9
	2007	664	61.8	0.0	9.5	20.3	4.0	2.0	1.3	1.0	61.8	63.3	60.5
Slovenia	2003	839	41.5	0.0	15.3	36.5	3.4	3.3	0.0	0.0	41.5	43.4	39.5
	2007	576	34.2	0.0	14.8	45.1	2.2	2.0	1.3	0.5	34.2	36.9	31.4
Sweden	2003	1003	53.8	0.0	13.5	25.9	3.9	2.8	0.0	0.0	53.8	55.7	51.8
	2007	739	47.8	0.0	12.9	28.5	1.3	4.4	2.9	2.1	47.8	52.4	43.9
Tunisia	2003	944	7.6	0.0	9.9	66.4	9.5	6.6	0.0	0.0	7.6	6.2	9.0
	2007	583	15.6	0.0	12.6	45.9	5.1	5.5	9.7	5.8	15.6	12.7	19.1
United States	2003	2120	21.6	0.0	4.8	64.7	5.3	3.6	0.0	0.0	21.6	22.1	21.0
	2007	1050	13.3	0.0	3.8	70.5	3.9	4.4	2.4	1.7	13.3	12.2	14.3
International Avg.	2003	1043	42.3	0.1	12.9	30.5	6.9	7.3	0.0	0.0	42.4	42.2	42.7
	2007	628	34.1	0.0	11.0	30.8	5.7	7.0	7.6	4.0	34.1	34.6	33.6
Basque Country, Spain	2003	585	39.2	0.0	10.7	43.5	4.8	1.8	0.0	0.0	39.2	39.2	39.1
	2007	328	28.3	0.0	15.0	43.3	4.5	5.1	2.7	1.1	28.3	27.1	29.5
Ontario, Canada	2003	931	37.2	0.0	5.7	51.7	2.9	2.5	0.0	0.0	37.2	40.7	33.0
	2007	493	27.9	0.0	7.1	51.5	2.0	3.4	4.3	3.7	27.9	24.8	30.7
Quebec, Canada	2003	1052	38.9	0.0	9.0	47.2	3.4	1.4	0.0	0.0	38.9	40.6	37.2
	2007	552	25.8	0.0	10.8	50.8	3.0	2.6	4.3	2.6	25.8	26.3	25.4

V1 = Percent scoring 1 or better V2 = Percent scoring 2 or better
 Percent right for boys and girls corresponds to the percent obtaining the maximum score on the item.
 Because of missing gender information, some totals may appear inconsistent.

Science: Physics / Reasoning (S022268 - S03_14)
 Label: Freezing salt water experiment
 Type: CR Key: -

COUNTRY	Year	N	10	11	19	70	71	79	OMIT TED	NOT REACH ED	V1	1.GIRL %Right	2.BOY %Right
Armenia	2003	480	21.9	29.5	4.8	7.7	17.5	18.5	0.0	0.0	56.2	56.7	55.6
	2007	670	13.4	8.9	7.2	5.2	2.6	8.5	43.8	10.3	29.5	29.0	29.9
Australia	2003	994	39.9	18.0	0.2	12.9	3.6	25.4	0.0	0.0	58.1	61.5	54.6
	2007	584	37.5	16.4	0.2	6.5	2.0	20.0	14.2	3.3	54.1	51.2	56.4
Bahrain	2003	705	7.3	13.4	2.7	18.9	6.8	51.0	0.0	0.0	23.4	26.9	18.2
	2007	611	10.3	13.5	1.2	14.5	3.2	29.7	19.4	8.1	25.1	33.5	17.0
Botswana	2003	872	2.9	6.6	0.7	5.8	2.0	82.0	0.0	0.0	10.2	9.4	11.2
	2007	590	2.4	3.8	0.1	4.6	1.5	54.1	18.6	14.9	6.4	7.7	4.9
Bulgaria	2003	629	20.3	27.9	3.4	13.7	21.3	13.5	0.0	0.0	51.6	54.0	49.6
	2007	442	3.5	22.1	4.3	2.0	12.1	8.0	37.1	10.8	29.9	35.4	25.4
Chinese Taipei	2003	1164	7.6	8.2	2.3	50.2	1.2	30.6	0.0	0.0	18.1	19.2	17.1
	2007	584	10.8	9.0	0.0	41.8	0.3	21.8	15.0	1.2	19.9	17.8	21.7
Cyprus	2003	618	4.4	27.3	0.8	15.8	27.2	24.4	0.0	0.0	32.5	33.3	31.6
	2007	637	1.7	20.6	10.0	11.9	8.5	15.0	25.5	6.8	32.3	36.0	28.9
Egypt	2003	1449	6.5	17.5	1.2	12.4	1.1	61.3	0.0	0.0	25.2	30.0	20.8
	2007	941	6.3	12.6	0.1	10.8	1.3	46.0	17.5	5.5	19.0	21.4	16.6
England	2003	581	51.2	18.2	0.2	4.2	2.5	23.8	0.0	0.0	69.5	71.3	67.5
	2007	567	45.7	7.9	1.0	4.9	1.7	25.5	12.1	1.3	54.6	59.8	48.5
Ghana	2003	455	1.8	10.2	1.0	3.5	1.4	82.1	0.0	0.0	13.0	13.0	13.0
	2007	746	1.2	7.0	0.0	2.5	1.0	33.2	34.6	20.5	8.2	7.9	8.4
Hong Kong SAR	2003	959	10.2	19.8	0.9	26.9	4.0	38.2	0.0	0.0	30.9	28.6	33.4
	2007	483	7.9	16.8	0.6	26.3	2.2	27.3	17.0	2.0	25.2	27.7	22.6
Hungary	2003	666	7.4	62.2	0.9	10.9	8.8	9.9	0.0	0.0	70.4	68.8	72.1
	2007	582	8.4	42.2	4.6	10.8	5.2	9.2	17.6	1.9	55.3	54.8	55.8
Indonesia	2003	980	3.7	12.6	1.9	12.7	4.2	64.9	0.0	0.0	18.2	20.2	15.9
	2007	596	3.7	11.5	0.2	10.1	1.8	50.5	13.2	9.0	15.4	17.1	13.6
Iran, Islamic Rep. of	2003	884	10.1	45.6	1.1	16.4	5.8	21.1	0.0	0.0	56.7	58.6	55.2
	2007	565	10.5	29.9	0.3	9.1	7.4	15.7	17.8	9.3	40.7	46.4	35.8
Israel	2003	720	32.5	17.4	2.2	14.9	6.8	26.2	0.0	0.0	52.1	49.2	55.1
	2007	478	19.1	9.5	1.5	9.1	1.9	25.6	22.7	10.5	30.1	27.4	33.3
Italy	2003	693	9.5	34.2	2.4	10.9	21.4	21.6	0.0	0.0	46.2	45.1	47.1
	2007	624	6.8	22.3	0.9	5.4	15.4	15.0	26.0	8.3	30.0	25.0	34.2
Japan	2003	1041	23.6	8.1	0.5	37.0	3.0	27.7	0.0	0.0	32.3	29.7	34.9
	2007	611	22.1	5.6	0.2	27.7	4.7	28.2	10.5	1.0	27.9	28.3	27.6
Jordan	2003	880	16.0	14.7	4.4	10.9	5.6	48.3	0.0	0.0	35.1	35.7	34.6
	2007	745	8.2	15.3	1.2	4.9	3.7	50.2	11.4	5.1	24.7	31.2	18.8
Korea, Rep. of	2003	1244	18.4	43.6	1.7	7.7	6.6	22.1	0.0	0.0	63.7	61.4	65.9
	2007	601	11.7	46.5	3.2	10.2	3.5	18.6	4.6	1.7	61.4	62.3	60.6
Lebanon	2003	417	15.2	4.8	2.4	30.1	4.6	42.9	0.0	0.0	22.3	21.7	23.5
	2007	542	3.5	7.3	2.1	2.0	4.4	29.1	40.7	10.9	12.9	14.8	10.5

V1 = Percent scoring 1 or better V2 = Percent scoring 2 or better
 Percent right for boys and girls corresponds to the percent obtaining the maximum score on the item.
 Because of missing gender information, some totals may appear inconsistent.

Science: Physics / Reasoning (S022268 - S03_14)
 Label: Freezing salt water experiment
 Type: CR Key: -

COUNTRY	Year	N	10	11	19	70	71	79	OMIT TED	NOT REACH ED	V1	1.GIRL %Right	2.BOY %Right
Lithuania	2003	921	24.5	33.1	0.6	6.1	23.2	12.5	0.0	0.0	58.2	59.9	56.5
	2007	569	11.4	37.3	0.0	4.0	19.7	11.9	13.1	2.6	48.7	48.4	48.9
Malaysia	2003	1027	2.8	22.3	1.9	30.8	3.3	39.0	0.0	0.0	27.0	27.4	26.7
	2007	633	7.2	12.6	0.7	14.2	4.0	40.8	15.3	5.2	20.6	21.2	19.9
Norway	2003	847	11.2	42.0	3.6	7.6	6.0	29.7	0.0	0.0	56.8	57.8	55.9
	2007	659	14.6	27.9	4.6	6.8	5.5	22.5	15.7	2.3	47.2	53.1	41.6
Palestinian Nat'l Auth.	2003	1078	4.2	18.6	6.5	15.5	2.7	52.5	0.0	0.0	29.3	29.9	28.4
	2007	630	6.2	13.1	2.5	8.1	4.7	42.5	16.3	6.4	21.9	24.7	19.0
Romania	2003	722	27.3	14.4	9.0	6.9	22.8	19.6	0.0	0.0	50.7	50.6	50.7
	2007	603	13.6	31.3	5.9	2.4	2.3	11.6	27.8	5.2	50.7	51.4	50.2
Russian Federation	2003	779	2.1	70.5	2.0	7.7	5.9	11.8	0.0	0.0	74.6	73.0	76.1
	2007	637	2.1	44.6	4.0	8.6	7.0	9.6	18.4	5.7	50.7	52.4	48.8
Scotland	2003	731	44.6	22.9	0.9	5.9	6.6	19.1	0.0	0.0	68.4	67.8	69.0
	2007	593	24.5	20.4	2.2	4.7	5.0	22.1	18.2	3.0	47.1	49.3	44.9
Serbia	2003	697	3.6	43.5	3.9	10.4	16.6	21.9	0.0	0.0	51.1	51.8	50.3
	2007	576	5.1	25.5	0.9	5.7	13.7	12.2	31.2	5.8	31.5	33.8	29.2
Singapore	2003	1365	24.2	19.0	1.2	31.4	2.3	21.8	0.0	0.0	44.5	44.0	45.0
	2007	664	23.7	19.6	0.7	20.9	3.4	23.1	7.3	1.4	43.9	44.9	43.1
Slovenia	2003	757	17.9	31.4	4.3	8.0	16.5	21.8	0.0	0.0	53.6	52.8	54.5
	2007	576	18.7	39.2	0.5	4.0	15.1	16.3	4.8	1.4	58.4	60.8	55.9
Sweden	2003	864	31.8	34.2	0.5	7.0	8.3	18.3	0.0	0.0	66.5	68.8	64.0
	2007	739	30.0	25.2	2.9	3.0	6.3	15.5	14.1	3.0	58.1	62.6	54.1
Tunisia	2003	776	10.5	11.5	2.2	13.9	7.4	54.6	0.0	0.0	24.2	24.4	23.8
	2007	583	6.7	9.0	0.7	12.8	6.6	37.8	16.6	9.8	16.4	15.9	17.0
United States	2003	2036	40.6	22.7	2.5	9.9	4.2	20.0	0.0	0.0	65.8	65.2	66.5
	2007	1050	35.6	18.0	2.3	8.5	3.9	21.3	7.8	2.7	55.9	57.6	54.2
International Avg.	2003	880	16.8	25.0	2.3	14.7	8.5	32.7	0.0	0.0	44.1	44.5	43.8
	2007	628	13.2	19.8	2.0	9.8	5.5	24.8	19.0	6.0	35.0	36.7	33.2
Basque Country, Spain	2003	479	7.5	39.8	2.7	14.4	12.4	23.2	0.0	0.0	50.0	49.2	50.9
	2007	328	6.9	32.3	0.0	13.8	10.7	20.8	13.7	1.8	39.1	45.7	32.6
Ontario, Canada	2003	832	33.2	40.4	2.2	6.2	4.3	13.8	0.0	0.0	75.7	76.2	75.2
	2007	493	27.5	23.8	3.2	5.2	3.8	20.2	10.9	5.4	54.5	57.3	51.9
Quebec, Canada	2003	959	13.0	44.0	2.8	4.5	3.2	32.5	0.0	0.0	59.9	59.1	60.6
	2007	552	12.9	28.5	2.9	5.2	2.4	29.2	15.5	3.2	44.4	43.6	45.1

V1 = Percent scoring 1 or better V2 = Percent scoring 2 or better
 Percent right for boys and girls corresponds to the percent obtaining the maximum score on the item.
 Because of missing gender information, some totals may appear inconsistent.

Science: Earth Science / Knowing (S022290 - S05_01)

Label: Earth year

Type: MC Key: D

COUNTRY	Year	N	DIFF	A	B	C	D	OMIT TED	NOT REACH ED	1.GIRL %Right	2.BOY %Right
Armenia	2003	1306	59.4	33.4	2.4	4.7	59.4	0.0	0.0	60.4	58.3
	2007	673	60.6	24.6	1.6	5.8	60.6	6.6	0.9	59.7	61.4
Australia	2003	1183	69.1	20.6	4.8	5.5	69.1	0.0	0.0	66.6	71.7
	2007	579	61.7	25.2	7.0	5.0	61.7	1.2	0.0	54.7	68.3
Bahrain	2003	1015	53.6	28.6	6.1	11.7	53.6	0.0	0.0	50.8	56.4
	2007	595	59.0	22.1	5.7	11.2	59.0	1.6	0.2	56.8	61.2
Botswana	2003	1246	27.4	31.0	15.8	25.8	27.4	0.0	0.0	24.0	30.8
	2007	604	25.2	30.3	16.8	25.4	25.2	1.8	0.6	23.2	27.5
Bulgaria	2003	975	67.3	23.8	3.6	5.3	67.3	0.0	0.0	62.0	71.9
	2007	436	59.7	23.6	4.5	7.7	59.7	4.5	0.0	58.2	61.0
Chinese Taipei	2003	1343	62.4	25.6	2.4	9.6	62.4	0.0	0.0	55.4	68.4
	2007	577	52.4	31.9	3.9	11.8	52.4	0.0	0.0	50.0	54.6
Cyprus	2003	967	45.8	32.6	8.5	13.1	45.8	0.0	0.0	41.6	49.3
	2007	625	46.0	32.8	9.1	10.6	46.0	1.4	0.0	41.5	50.8
Egypt	2003	1737	42.5	34.1	9.1	14.2	42.5	0.0	0.0	37.2	47.1
	2007	937	48.4	26.1	9.0	14.5	48.4	1.8	0.2	49.8	47.0
England	2003	695	74.9	18.7	2.3	4.1	74.9	0.0	0.0	68.8	80.8
	2007	554	69.9	21.9	2.2	5.3	69.9	0.5	0.1	68.3	71.5
Ghana	2003	1201	23.4	33.9	22.5	20.1	23.4	0.0	0.0	19.4	26.7
	2007	763	22.7	31.9	21.7	17.9	22.7	4.5	1.2	17.8	26.8
Hong Kong SAR	2003	1224	77.2	16.0	3.2	3.6	77.2	0.0	0.0	70.2	84.1
	2007	494	63.6	24.4	5.1	5.4	63.6	1.0	0.5	58.2	69.4
Hungary	2003	813	65.7	24.1	3.7	6.5	65.7	0.0	0.0	59.5	72.2
	2007	578	63.2	28.6	2.7	5.2	63.2	0.3	0.0	56.7	69.5
Indonesia	2003	1399	41.1	39.6	9.0	10.3	41.1	0.0	0.0	34.4	48.2
	2007	599	32.4	44.8	9.9	11.4	32.4	1.4	0.1	28.3	36.7
Iran, Islamic Rep. of	2003	1218	63.2	21.1	5.6	10.1	63.2	0.0	0.0	61.2	64.5
	2007	566	53.5	27.1	3.9	14.1	53.5	1.4	0.0	50.1	56.2
Israel	2003	1046	56.3	25.4	6.5	11.8	56.3	0.0	0.0	53.7	58.9
	2007	476	47.8	23.6	7.1	15.9	47.8	5.2	0.3	46.0	49.7
Italy	2003	1030	70.0	22.2	3.0	4.9	70.0	0.0	0.0	63.8	76.2
	2007	633	69.6	22.5	1.9	4.3	69.6	1.4	0.3	64.3	74.7
Japan	2003	1213	56.8	25.8	7.6	9.7	56.8	0.0	0.0	49.7	63.7
	2007	618	56.5	26.5	8.4	8.5	56.5	0.0	0.2	50.6	62.0
Jordan	2003	1068	40.2	36.4	8.9	14.5	40.2	0.0	0.0	37.8	42.4
	2007	751	49.1	31.1	6.1	10.8	49.1	3.0	0.0	47.7	50.2
Korea, Rep. of	2003	1319	66.2	22.8	3.6	7.4	66.2	0.0	0.0	60.3	71.8
	2007	604	71.2	20.7	3.2	4.6	71.2	0.2	0.2	63.7	78.1
Lebanon	2003	803	47.9	23.5	11.2	17.4	47.9	0.0	0.0	45.5	51.0
	2007	533	47.5	16.1	13.7	13.6	47.5	9.0	0.1	40.6	55.1

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent.

Science: Earth Science / Knowing (S022290 - S05_01)

Label: Earth year

Type: MC Key: D

COUNTRY	Year	N	DIFF	A	B	C	D	OMIT TED	NOT REACH ED	1.GIRL %Right	2.BOY %Right
Lithuania	2003	1146	63.3	29.9	2.0	4.8	63.3	0.0	0.0	59.2	67.3
	2007	565	62.5	28.7	2.1	6.3	62.5	0.4	0.0	54.7	70.4
Malaysia	2003	1323	63.9	27.8	5.7	2.7	63.9	0.0	0.0	58.5	69.0
	2007	631	53.1	35.5	5.6	4.9	53.1	0.7	0.2	49.9	57.2
Norway	2003	1005	68.2	22.6	2.4	6.8	68.2	0.0	0.0	67.6	68.8
	2007	657	70.1	19.2	4.1	5.3	70.1	1.2	0.1	63.3	76.9
Palestinian Nat'l Auth.	2003	1292	38.4	35.7	7.3	18.6	38.4	0.0	0.0	34.8	42.6
	2007	624	36.0	34.1	11.4	15.7	36.0	2.3	0.4	31.7	40.4
Romania	2003	988	47.0	40.6	4.9	7.5	47.0	0.0	0.0	44.7	49.6
	2007	592	40.0	39.9	6.8	8.7	40.0	3.8	0.8	41.5	38.3
Russian Federation	2003	1153	63.6	27.6	3.5	5.3	63.6	0.0	0.0	60.6	66.6
	2007	641	61.6	28.9	4.2	3.5	61.6	1.7	0.1	59.1	64.2
Scotland	2003	861	68.3	18.0	5.6	8.1	68.3	0.0	0.0	63.0	73.6
	2007	573	60.2	22.5	6.2	10.5	60.2	0.4	0.1	54.9	65.9
Serbia	2003	1045	56.8	34.0	3.9	5.2	56.8	0.0	0.0	56.2	57.5
	2007	572	59.8	30.9	2.1	4.6	59.8	2.4	0.2	54.0	65.5
Singapore	2003	1511	66.3	25.6	4.1	4.1	66.3	0.0	0.0	60.3	71.9
	2007	662	71.9	20.0	3.5	4.2	71.9	0.4	0.0	68.3	75.7
Slovenia	2003	861	68.8	23.7	3.1	4.4	68.8	0.0	0.0	64.6	72.7
	2007	570	68.2	23.8	1.7	4.4	68.2	1.8	0.0	63.8	73.2
Sweden	2003	1043	74.0	16.9	1.9	7.1	74.0	0.0	0.0	72.2	75.8
	2007	759	63.6	24.8	3.5	6.6	63.6	1.5	0.0	62.4	64.6
Tunisia	2003	1083	39.1	31.8	12.6	16.5	39.1	0.0	0.0	31.8	46.5
	2007	583	39.8	33.8	7.9	11.8	39.8	6.0	0.7	36.0	43.9
United States	2003	2206	68.6	20.8	5.4	5.3	68.6	0.0	0.0	62.2	75.2
	2007	1052	62.8	25.3	4.7	6.5	62.8	0.7	0.0	56.3	70.2
International Avg.	2003	1161	57.5	27.1	6.1	9.3	57.5	0.0	0.0	53.3	61.6
	2007	627	54.8	27.4	6.3	9.1	54.8	2.1	0.2	51.0	58.7
Basque Country, Spain	2003	620	66.4	18.5	7.3	7.8	66.4	0.0	0.0	63.1	69.6
	2007	317	69.0	16.6	4.4	7.8	69.0	2.2	0.0	68.5	69.5
Ontario, Canada	2003	1041	67.9	21.0	4.7	6.5	67.9	0.0	0.0	58.3	78.4
	2007	501	61.9	24.8	5.9	6.4	61.9	0.7	0.3	51.8	70.6
Quebec, Canada	2003	1101	82.7	11.7	1.8	3.8	82.7	0.0	0.0	78.5	87.0
	2007	570	73.2	18.2	3.1	4.5	73.2	0.9	0.1	63.9	81.5

DIFF = Percent correct
 Because of missing gender information, some totals may appear inconsistent.

Science: Physics / Reasoning (S022292 - S05_02)
 Label: Water level in U-tube
 Type: CR Key: -

COUNTRY	Year	N	10	70	71	72	79	OMIT TED	NOT REACH ED	V1	1.GIRL %Right	2.BOY %Right
Armenia	2003	1221	55.4	10.2	5.5	6.3	22.6	0.0	0.0	55.4	47.9	63.7
	2007	675	42.8	16.6	3.1	3.4	20.5	12.6	1.0	42.8	39.7	45.8
Australia	2003	1157	52.6	10.9	19.3	10.9	6.3	0.0	0.0	52.6	47.6	58.0
	2007	579	48.1	6.8	16.8	8.4	14.1	5.9	0.0	48.1	41.5	54.3
Bahrain	2003	956	23.8	19.0	19.8	5.1	32.3	0.0	0.0	23.8	18.6	29.4
	2007	595	18.1	9.5	17.5	4.1	36.3	14.4	0.2	18.1	16.9	19.2
Botswana	2003	963	14.4	11.1	20.9	3.5	50.0	0.0	0.0	14.4	5.5	23.4
	2007	604	7.9	6.7	12.6	1.0	46.9	23.8	1.1	7.9	4.9	11.3
Bulgaria	2003	849	56.5	18.0	11.5	5.2	8.8	0.0	0.0	56.5	51.9	60.4
	2007	436	46.8	7.2	7.5	2.0	13.0	23.5	0.0	46.8	42.9	49.9
Chinese Taipei	2003	1295	52.3	9.1	15.9	8.7	14.0	0.0	0.0	52.3	45.0	58.8
	2007	577	56.3	12.6	12.1	7.1	7.7	4.3	0.0	56.3	51.6	60.6
Cyprus	2003	893	37.4	16.6	25.1	3.2	17.8	0.0	0.0	37.4	32.2	41.9
	2007	625	18.0	16.6	23.8	1.4	26.0	14.3	0.0	18.0	14.3	21.9
Egypt	2003	1592	12.9	11.0	15.3	6.9	53.9	0.0	0.0	12.9	10.8	14.8
	2007	942	4.9	8.1	14.0	9.7	51.2	11.9	0.3	4.9	4.2	5.5
England	2003	680	48.9	14.4	17.6	9.4	9.8	0.0	0.0	48.9	45.5	52.2
	2007	554	42.0	15.6	11.6	11.1	14.0	5.5	0.1	42.0	43.6	40.5
Ghana	2003	597	8.6	6.2	12.9	2.1	70.2	0.0	0.0	8.6	5.0	11.0
	2007	763	3.9	3.1	3.9	0.7	34.4	52.3	1.7	3.9	2.6	5.0
Hong Kong SAR	2003	1209	60.6	10.7	7.7	10.6	10.4	0.0	0.0	60.6	55.7	65.4
	2007	494	52.3	16.9	10.0	6.7	9.8	3.7	0.5	52.3	49.6	55.3
Hungary	2003	813	57.3	11.8	19.2	6.1	5.7	0.0	0.0	57.3	47.5	67.6
	2007	578	54.9	10.9	18.1	5.5	10.2	0.3	0.1	54.9	45.4	64.0
Indonesia	2003	1236	53.1	14.7	16.1	4.8	11.3	0.0	0.0	53.1	41.4	64.7
	2007	599	40.3	13.7	13.9	3.5	19.6	8.8	0.1	40.3	28.7	52.6
Iran, Islamic Rep. of	2003	1055	25.3	12.8	18.5	5.8	37.5	0.0	0.0	25.3	21.1	28.2
	2007	566	18.9	11.1	14.4	5.1	40.4	10.0	0.1	18.9	15.5	21.6
Israel	2003	983	34.9	11.2	16.8	5.6	31.5	0.0	0.0	34.9	33.5	36.3
	2007	476	25.5	9.5	11.7	3.1	30.3	19.6	0.3	25.5	23.1	28.3
Italy	2003	997	47.5	11.7	26.0	3.4	11.4	0.0	0.0	47.5	38.2	57.1
	2007	633	35.3	10.8	29.0	6.5	11.5	6.6	0.3	35.3	29.0	41.4
Japan	2003	1204	59.4	21.4	9.2	5.9	4.0	0.0	0.0	59.4	58.6	60.3
	2007	618	61.9	12.2	8.1	4.2	13.2	0.2	0.2	61.9	62.2	61.6
Jordan	2003	984	37.8	18.2	16.4	2.3	25.3	0.0	0.0	37.8	30.5	44.9
	2007	751	23.7	8.5	20.8	2.3	35.7	8.7	0.3	23.7	23.6	23.8
Korea, Rep. of	2003	1310	57.2	21.2	7.9	8.7	5.1	0.0	0.0	57.2	52.8	61.4
	2007	604	48.2	22.1	14.7	13.0	0.8	1.0	0.2	48.2	42.3	53.6
Lebanon	2003	687	31.5	28.0	13.9	2.1	24.5	0.0	0.0	31.5	26.3	38.2
	2007	539	34.5	8.8	10.2	6.6	21.0	18.5	0.3	34.5	29.6	40.0

V1 = Percent scoring 1 or better V2 = Percent scoring 2 or better
 Percent right for boys and girls corresponds to the percent obtaining the maximum score on the item.
 Because of missing gender information, some totals may appear inconsistent.

Science: Physics / Reasoning (S022292 - S05_02)
 Label: Water level in U-tube
 Type: CR Key: -

COUNTRY	Year	N	10	70	71	72	79	OMIT TED	NOT REACH ED	V1	1.GIRL %Right	2.BOY %Right
Lithuania	2003	1124	64.4	8.8	8.2	5.5	13.2	0.0	0.0	64.4	59.4	69.4
	2007	567	48.5	22.7	13.3	4.4	8.8	2.3	0.0	48.5	40.3	56.9
Malaysia	2003	1291	56.5	8.8	18.2	5.7	10.8	0.0	0.0	56.5	46.9	65.9
	2007	631	40.5	13.9	17.2	7.0	16.7	4.5	0.2	40.5	36.7	45.2
Norway	2003	960	51.9	12.4	16.2	10.0	9.5	0.0	0.0	51.9	44.5	59.1
	2007	657	47.8	16.3	13.7	5.1	6.5	10.6	0.1	47.8	42.0	53.5
Palestinian Nat'l Auth.	2003	1176	15.9	11.1	36.1	1.5	35.4	0.0	0.0	15.9	10.3	23.0
	2007	624	14.5	11.1	26.6	2.1	32.5	12.9	0.4	14.5	9.4	19.7
Romania	2003	924	51.1	16.2	18.4	2.5	11.7	0.0	0.0	51.1	41.0	62.8
	2007	592	36.0	13.5	20.0	3.0	17.7	8.5	1.2	36.0	28.7	44.0
Russian Federation	2003	1137	67.1	13.2	11.8	1.1	6.8	0.0	0.0	67.1	56.9	77.2
	2007	641	53.0	9.6	13.1	8.3	13.0	3.0	0.1	53.0	43.7	62.4
Scotland	2003	854	45.2	11.8	23.1	12.2	7.7	0.0	0.0	45.2	39.5	50.9
	2007	573	29.9	17.1	19.2	11.5	15.9	6.3	0.1	29.9	25.8	34.1
Serbia	2003	989	48.2	11.5	10.6	2.9	26.8	0.0	0.0	48.2	39.9	57.0
	2007	573	41.9	11.1	8.7	5.8	23.3	9.0	0.2	41.9	40.4	43.4
Singapore	2003	1490	59.3	12.5	9.4	7.9	10.9	0.0	0.0	59.3	53.6	64.7
	2007	662	57.9	10.5	7.1	8.6	13.7	2.1	0.0	57.9	56.7	59.1
Slovenia	2003	853	55.0	16.3	16.4	1.6	10.7	0.0	0.0	55.0	45.9	63.7
	2007	570	54.9	13.7	18.9	1.7	8.8	2.0	0.0	54.9	51.9	58.2
Sweden	2003	1028	62.8	10.4	15.3	2.6	8.9	0.0	0.0	62.8	57.5	67.7
	2007	759	58.8	12.1	14.7	5.5	5.9	2.9	0.0	58.8	55.1	62.2
Tunisia	2003	900	25.7	13.0	10.2	3.9	47.3	0.0	0.0	25.7	22.2	29.1
	2007	583	19.9	10.1	9.6	6.1	40.5	13.3	0.7	19.9	14.9	25.3
United States	2003	2117	43.0	15.8	23.3	5.5	12.4	0.0	0.0	43.0	39.0	47.2
	2007	1052	36.0	15.2	22.1	8.3	10.6	7.8	0.1	36.0	30.4	42.2
International Avg.	2003	1076	44.7	13.6	16.1	5.4	20.1	0.0	0.0	44.7	38.5	50.8
	2007	627	37.1	12.2	14.5	5.5	20.3	10.0	0.3	37.1	32.9	41.3
Basque Country, Spain	2003	605	41.0	19.1	16.7	6.0	17.2	0.0	0.0	41.0	33.9	48.1
	2007	317	31.0	15.4	14.1	5.4	30.0	3.9	0.2	31.0	22.8	39.5
Ontario, Canada	2003	1000	44.9	13.5	22.9	9.1	9.7	0.0	0.0	44.9	38.8	51.7
	2007	501	46.8	14.2	18.2	6.1	7.5	6.9	0.3	46.8	41.8	51.2
Quebec, Canada	2003	1078	51.1	12.6	15.9	6.8	13.6	0.0	0.0	51.1	48.1	54.3
	2007	570	44.3	11.9	21.6	5.1	13.2	3.8	0.2	44.3	32.4	54.8

V1 = Percent scoring 1 or better V2 = Percent scoring 2 or better
 Percent right for boys and girls corresponds to the percent obtaining the maximum score on the item.
 Because of missing gender information, some totals may appear inconsistent.

Science: Physics / Applying (S022054 - S05_03)
 Label: Expansion in thermometer
 Type: MC Key: D

COUNTRY	Year	N	DIFF	A	B	C	D	OMIT TED	NOT REACH ED	1.GIRL %Right	2.BOY %Right
Armenia	2003	1149	60.9	8.9	14.1	16.1	60.9	0.0	0.0	61.9	59.9
	2007	674	58.8	5.4	10.9	11.6	58.8	12.1	1.2	60.1	57.5
Australia	2003	1184	52.1	7.5	28.6	11.7	52.1	0.0	0.0	46.0	58.5
	2007	579	51.0	5.6	33.1	8.7	51.0	1.4	0.1	42.9	58.7
Bahrain	2003	986	52.6	8.8	19.5	19.1	52.6	0.0	0.0	56.2	49.0
	2007	595	47.8	7.3	24.2	16.2	47.8	3.7	0.8	49.0	46.8
Botswana	2003	1248	39.8	8.8	28.7	22.7	39.8	0.0	0.0	41.1	38.6
	2007	604	39.7	9.4	26.4	21.6	39.7	1.7	1.2	39.9	39.5
Bulgaria	2003	945	63.3	7.7	16.4	12.6	63.3	0.0	0.0	61.3	65.1
	2007	436	53.3	5.2	15.3	18.7	53.3	7.2	0.4	50.5	55.5
Chinese Taipei	2003	1344	60.4	7.1	10.9	21.6	60.4	0.0	0.0	57.9	62.5
	2007	577	63.5	5.1	11.0	20.2	63.5	0.2	0.0	61.5	65.3
Cyprus	2003	957	30.6	11.6	40.4	17.4	30.6	0.0	0.0	32.9	28.6
	2007	625	29.6	10.6	37.6	20.7	29.6	1.6	0.0	29.9	29.2
Egypt	2003	1718	48.2	7.1	20.1	24.6	48.2	0.0	0.0	47.8	48.6
	2007	940	52.6	5.1	19.4	20.4	52.6	2.1	0.4	53.9	51.4
England	2003	692	51.3	8.1	32.7	7.9	51.3	0.0	0.0	48.5	54.1
	2007	554	52.7	9.8	25.7	10.3	52.7	1.4	0.1	51.3	54.2
Ghana	2003	1206	31.6	12.8	27.0	28.6	31.6	0.0	0.0	34.8	29.0
	2007	763	25.8	12.8	30.8	25.5	25.8	3.2	1.8	26.2	25.5
Hong Kong SAR	2003	1221	70.2	4.6	9.3	15.9	70.2	0.0	0.0	68.7	71.7
	2007	494	64.0	5.4	11.2	17.8	64.0	1.1	0.5	62.4	65.6
Hungary	2003	799	72.9	3.8	13.7	9.5	72.9	0.0	0.0	70.3	75.6
	2007	578	69.5	6.8	12.3	9.4	69.5	1.9	0.1	65.5	73.3
Indonesia	2003	1393	51.9	4.5	25.7	17.9	51.9	0.0	0.0	54.9	48.7
	2007	599	54.1	8.8	25.3	9.8	54.1	1.8	0.1	54.1	54.1
Iran, Islamic Rep. of	2003	1191	31.8	13.9	33.6	20.7	31.8	0.0	0.0	31.5	32.0
	2007	566	33.6	16.0	25.4	21.4	33.6	3.1	0.5	35.8	31.8
Israel	2003	1011	61.7	8.0	16.1	14.2	61.7	0.0	0.0	61.4	62.0
	2007	476	57.0	5.5	18.6	12.3	57.0	6.3	0.3	59.7	53.9
Italy	2003	1008	53.1	7.2	29.4	10.2	53.1	0.0	0.0	52.9	53.4
	2007	633	53.6	6.9	24.9	10.2	53.6	3.9	0.5	51.4	55.7
Japan	2003	1200	61.1	6.2	18.2	14.4	61.1	0.0	0.0	60.4	61.9
	2007	618	60.8	7.0	17.2	13.8	60.8	1.0	0.2	61.5	60.2
Jordan	2003	1052	55.1	5.0	22.6	17.4	55.1	0.0	0.0	59.4	51.1
	2007	751	55.2	4.6	17.7	19.1	55.2	3.2	0.3	57.4	53.3
Korea, Rep. of	2003	1319	62.5	4.0	20.2	13.3	62.5	0.0	0.0	60.3	64.5
	2007	604	67.7	2.9	14.7	14.0	67.7	0.5	0.2	68.4	67.0
Lebanon	2003	820	35.1	7.5	35.8	21.5	35.1	0.0	0.0	35.9	34.1
	2007	537	33.2	8.6	29.2	21.2	33.2	7.3	0.5	36.4	29.5

DIFF = Percent correct
 Because of missing gender information, some totals may appear inconsistent.

Science: Physics / Applying (S022054 - S05_03)
 Label: Expansion in thermometer
 Type: MC Key: D

COUNTRY	Year	N	DIFF	A	B	C	D	OMIT TED	NOT REACH ED	1.GIRL %Right	2.BOY %Right
Lithuania	2003	1121	70.4	2.9	18.8	7.9	70.4	0.0	0.0	69.0	71.8
	2007	567	67.3	4.1	14.7	12.5	67.3	1.3	0.1	66.0	68.7
Malaysia	2003	1298	53.4	4.1	24.0	18.5	53.4	0.0	0.0	51.0	55.7
	2007	631	47.7	6.4	22.6	21.0	47.7	2.0	0.3	45.6	50.2
Norway	2003	997	56.1	7.0	24.4	12.5	56.1	0.0	0.0	56.8	55.5
	2007	657	56.9	6.0	25.7	9.1	56.9	1.5	0.8	55.2	58.5
Palestinian Nat'l Auth.	2003	1300	53.1	5.9	17.5	23.5	53.1	0.0	0.0	56.6	49.1
	2007	624	43.1	7.1	22.2	25.8	43.1	1.4	0.4	47.7	38.3
Romania	2003	985	46.8	7.2	35.3	10.7	46.8	0.0	0.0	46.9	46.7
	2007	592	43.0	7.4	32.7	14.3	43.0	1.3	1.3	42.8	43.3
Russian Federation	2003	1134	60.9	7.7	19.8	11.5	60.9	0.0	0.0	58.2	63.6
	2007	641	55.5	10.5	18.9	11.8	55.5	3.1	0.2	53.9	57.0
Scotland	2003	849	50.3	7.4	32.6	9.7	50.3	0.0	0.0	46.9	53.7
	2007	573	48.5	5.2	34.3	9.9	48.5	2.0	0.1	45.7	51.5
Serbia	2003	1007	47.1	8.7	23.3	20.9	47.1	0.0	0.0	46.1	48.1
	2007	568	47.9	8.7	22.3	14.5	47.9	6.4	0.2	48.7	47.1
Singapore	2003	1499	70.6	3.1	13.0	13.3	70.6	0.0	0.0	68.2	72.9
	2007	662	59.6	6.5	19.4	14.0	59.6	0.4	0.0	56.3	63.2
Slovenia	2003	839	67.2	5.1	18.2	9.6	67.2	0.0	0.0	64.7	69.6
	2007	570	60.1	4.9	24.5	8.8	60.1	1.7	0.0	56.2	64.4
Sweden	2003	1041	73.1	5.0	13.2	8.7	73.1	0.0	0.0	73.8	72.4
	2007	759	64.6	5.2	19.1	9.6	64.6	1.6	0.0	62.0	66.9
Tunisia	2003	1042	36.6	4.8	38.4	20.2	36.6	0.0	0.0	32.4	40.8
	2007	583	36.7	4.8	36.0	15.0	36.7	6.5	1.0	34.5	39.0
United States	2003	2200	52.1	6.9	29.7	11.3	52.1	0.0	0.0	50.2	54.1
	2007	1052	52.9	6.7	30.1	8.7	52.9	1.5	0.1	53.2	52.5
International Avg.	2003	1144	54.1	6.9	23.4	15.6	54.1	0.0	0.0	53.5	54.6
	2007	627	51.7	7.0	22.8	15.1	51.7	2.9	0.4	51.1	52.4
Basque Country, Spain	2003	607	49.6	7.5	25.9	16.9	49.6	0.0	0.0	47.3	51.9
	2007	317	48.3	7.7	23.4	18.4	48.3	1.9	0.2	47.8	48.8
Ontario, Canada	2003	1042	53.9	6.2	31.8	8.2	53.9	0.0	0.0	49.5	58.6
	2007	501	55.9	3.4	26.9	12.6	55.9	0.6	0.6	50.6	60.6
Quebec, Canada	2003	1096	53.6	4.5	35.4	6.5	53.6	0.0	0.0	50.1	57.2
	2007	570	45.5	6.4	36.4	9.6	45.5	1.8	0.2	49.8	41.6

DIFF = Percent correct
 Because of missing gender information, some totals may appear inconsistent.

Science: Chemistry / Knowing (S022181 - S05_04)
 Label: Sugar dissolving in water
 Type: MC Key: B

COUNTRY	Year	N	DIFF	A	B	C	D	OMIT TED	NOT REACH ED	1.GIRL %Right	2.BOY %Right
Armenia	2003	1288	44.7	12.8	44.7	4.9	37.6	0.0	0.0	44.7	44.8
	2007	674	50.8	8.9	50.8	3.1	30.9	4.8	1.4	52.6	49.2
Australia	2003	1185	40.8	3.4	40.8	13.2	42.6	0.0	0.0	35.1	46.9
	2007	579	39.8	6.2	39.8	13.3	38.8	1.5	0.4	30.7	48.3
Bahrain	2003	1036	22.2	16.9	22.2	6.3	54.5	0.0	0.0	19.7	24.7
	2007	595	31.6	22.6	31.6	7.0	37.1	0.6	1.1	32.2	31.0
Botswana	2003	1243	32.0	14.8	32.0	18.5	34.6	0.0	0.0	30.9	33.2
	2007	603	30.1	13.3	30.1	21.2	32.0	1.6	1.8	31.4	28.7
Bulgaria	2003	976	64.1	4.2	64.1	4.8	26.9	0.0	0.0	64.7	63.6
	2007	436	59.8	5.9	59.8	6.3	24.3	2.1	1.6	62.6	57.6
Chinese Taipei	2003	1342	75.5	0.8	75.5	3.0	20.7	0.0	0.0	75.6	75.5
	2007	577	80.8	0.5	80.8	3.2	15.5	0.0	0.0	81.4	80.2
Cyprus	2003	973	27.0	7.3	27.0	15.4	50.3	0.0	0.0	25.1	28.5
	2007	625	30.6	4.8	30.6	11.1	52.5	1.0	0.0	29.0	32.2
Egypt	2003	1749	19.7	24.8	19.7	6.0	49.4	0.0	0.0	15.3	23.6
	2007	941	21.1	22.1	21.1	6.0	49.5	0.7	0.5	21.5	20.8
England	2003	696	46.8	5.2	46.8	13.0	35.0	0.0	0.0	41.3	52.1
	2007	554	54.1	5.2	54.1	13.1	26.5	0.8	0.2	48.2	60.3
Ghana	2003	1224	39.3	9.5	39.3	11.0	40.2	0.0	0.0	39.5	39.1
	2007	763	39.1	10.9	39.1	10.8	35.5	1.6	2.1	38.1	40.0
Hong Kong SAR	2003	1226	54.7	1.2	54.7	3.3	40.8	0.0	0.0	54.5	55.0
	2007	494	54.1	2.1	54.1	6.1	37.0	0.2	0.5	47.5	61.2
Hungary	2003	815	57.6	1.0	57.6	2.6	38.8	0.0	0.0	51.7	63.9
	2007	578	60.0	1.4	60.0	2.8	34.2	1.4	0.2	50.7	68.8
Indonesia	2003	1410	19.8	10.2	19.8	7.8	62.3	0.0	0.0	22.2	17.2
	2007	599	20.2	10.0	20.2	6.4	62.2	0.9	0.4	19.9	20.4
Iran, Islamic Rep. of	2003	1221	19.3	9.2	19.3	6.2	65.3	0.0	0.0	18.5	19.8
	2007	566	21.2	10.3	21.2	7.8	59.1	1.2	0.5	22.4	20.1
Israel	2003	1063	52.9	3.8	52.9	9.1	34.2	0.0	0.0	52.5	53.4
	2007	476	53.2	5.3	53.2	12.6	26.5	2.2	0.3	54.5	51.7
Italy	2003	1042	56.5	4.0	56.5	6.8	32.8	0.0	0.0	58.5	54.3
	2007	632	53.2	6.5	53.2	7.9	29.8	1.8	0.7	53.7	52.8
Japan	2003	1213	71.8	4.0	71.8	3.9	20.4	0.0	0.0	69.4	74.0
	2007	618	75.0	4.4	75.0	4.4	15.9	0.2	0.2	72.7	77.1
Jordan	2003	1085	40.0	10.6	40.0	9.8	39.6	0.0	0.0	42.8	37.5
	2007	751	51.2	7.1	51.2	9.1	31.4	0.8	0.3	55.9	47.1
Korea, Rep. of	2003	1323	92.3	1.6	92.3	3.0	3.1	0.0	0.0	91.6	92.8
	2007	604	91.2	1.9	91.2	3.9	2.8	0.0	0.2	91.0	91.4
Lebanon	2003	906	39.8	5.8	39.8	12.5	41.9	0.0	0.0	37.7	42.5
	2007	535	36.1	5.7	36.1	13.0	42.8	1.8	0.7	32.5	40.2

DIFF = Percent correct
 Because of missing gender information, some totals may appear inconsistent.

Science: Chemistry / Knowing (S022181 - S05_04)
 Label: Sugar dissolving in water
 Type: MC Key: B

COUNTRY	Year	N	DIFF	A	B	C	D	OMIT TED	NOT REACH ED	1.GIRL %Right	2.BOY %Right
Lithuania	2003	1143	50.8	5.8	50.8	4.3	39.1	0.0	0.0	47.9	53.6
	2007	567	51.9	6.5	51.9	1.6	39.5	0.5	0.1	49.7	54.2
Malaysia	2003	1319	50.6	0.6	50.6	7.1	41.7	0.0	0.0	51.0	50.3
	2007	631	45.3	5.9	45.3	9.3	38.2	1.0	0.3	45.3	45.1
Norway	2003	1000	34.9	5.6	34.9	10.3	49.2	0.0	0.0	33.8	35.9
	2007	657	39.0	4.5	39.0	11.1	43.6	0.8	1.0	41.4	36.6
Palestinian Nat'l Auth.	2003	1330	30.5	11.4	30.5	12.1	46.0	0.0	0.0	31.0	29.9
	2007	624	25.2	14.0	25.2	18.2	41.7	0.4	0.4	25.9	24.5
Romania	2003	1004	42.5	4.0	42.5	6.1	47.4	0.0	0.0	42.3	42.6
	2007	592	39.2	4.0	39.2	7.1	46.7	1.6	1.3	42.5	35.5
Russian Federation	2003	1163	57.7	1.7	57.7	5.5	35.1	0.0	0.0	54.3	61.0
	2007	641	62.0	2.0	62.0	5.1	29.6	1.2	0.2	59.1	65.0
Scotland	2003	857	40.4	5.8	40.4	20.7	33.2	0.0	0.0	39.1	41.6
	2007	573	36.7	6.6	36.7	23.6	31.9	1.0	0.1	33.4	40.2
Serbia	2003	1056	61.7	4.0	61.7	4.3	30.0	0.0	0.0	60.0	63.5
	2007	567	60.5	5.0	60.5	4.3	28.7	1.2	0.2	60.4	60.7
Singapore	2003	1512	59.1	2.2	59.1	4.9	33.9	0.0	0.0	56.7	61.3
	2007	662	47.1	3.4	47.1	7.5	41.7	0.3	0.0	45.5	48.8
Slovenia	2003	860	42.8	6.9	42.8	4.7	45.5	0.0	0.0	43.2	42.5
	2007	570	46.5	4.1	46.5	2.6	45.6	1.1	0.0	44.2	49.2
Sweden	2003	1045	70.6	3.6	70.6	8.9	16.9	0.0	0.0	68.4	72.6
	2007	759	67.3	2.3	67.3	12.3	17.3	0.7	0.0	66.4	68.2
Tunisia	2003	1133	34.1	11.8	34.1	10.3	43.8	0.0	0.0	36.0	32.2
	2007	583	43.3	14.0	43.3	6.7	31.8	3.3	1.0	42.6	44.0
United States	2003	2197	41.7	4.3	41.7	12.5	41.5	0.0	0.0	38.4	45.2
	2007	1052	39.6	5.9	39.6	15.8	37.6	0.7	0.3	40.5	38.6
International Avg.	2003	1171	46.5	6.6	46.5	8.3	38.6	0.0	0.0	45.3	47.7
	2007	627	47.2	7.1	47.2	8.9	35.1	1.2	0.5	46.2	48.2
Basque Country, Spain	2003	621	61.7	6.2	61.7	8.5	23.6	0.0	0.0	61.6	61.7
	2007	317	58.7	2.9	58.7	9.2	28.8	0.2	0.2	64.6	52.6
Ontario, Canada	2003	1047	48.0	2.1	48.0	10.1	39.8	0.0	0.0	46.4	49.8
	2007	501	40.1	1.8	40.1	14.4	42.9	0.1	0.6	38.9	41.1
Quebec, Canada	2003	1098	50.2	3.6	50.2	6.9	39.2	0.0	0.0	48.0	52.6
	2007	570	37.4	3.0	37.4	8.1	50.0	0.7	0.8	33.6	40.8

DIFF = Percent correct
 Because of missing gender information, some totals may appear inconsistent.

Science: Chemistry / Knowing (S022208 - S05_05)
 Label: NOT a chemical change
 Type: MC Key: A

COUNTRY	Year	N	DIFF	A	B	C	D	OMIT TED	NOT REACH ED	1.GIRL %Right	2.BOY %Right
Armenia	2003	1279	53.5	53.5	8.2	6.0	32.3	0.0	0.0	54.3	52.6
	2007	675	60.2	60.2	8.1	3.6	22.0	4.4	1.6	61.4	59.1
Australia	2003	1181	42.8	42.8	15.2	20.0	22.1	0.0	0.0	42.6	43.0
	2007	579	36.5	36.5	16.7	20.6	24.7	1.1	0.4	31.0	41.7
Bahrain	2003	1018	36.0	36.0	22.3	9.1	32.6	0.0	0.0	36.1	35.8
	2007	595	43.5	43.5	13.7	14.2	26.8	0.7	1.1	43.1	43.8
Botswana	2003	1251	31.4	31.4	26.3	12.4	29.8	0.0	0.0	28.9	34.0
	2007	603	32.9	32.9	21.9	13.4	27.8	1.7	2.3	30.2	36.0
Bulgaria	2003	978	48.3	48.3	10.9	14.5	26.2	0.0	0.0	46.1	50.3
	2007	436	41.8	41.8	10.5	12.2	31.8	2.1	1.6	38.4	44.4
Chinese Taipei	2003	1341	76.9	76.9	3.1	7.0	12.9	0.0	0.0	78.9	75.3
	2007	577	73.7	73.7	3.2	8.2	14.8	0.1	0.0	72.8	74.7
Cyprus	2003	976	40.5	40.5	20.5	17.7	21.3	0.0	0.0	39.7	41.2
	2007	625	45.9	45.9	17.6	14.0	20.8	1.6	0.0	46.2	45.6
Egypt	2003	1736	34.3	34.3	13.7	18.6	33.4	0.0	0.0	35.5	33.2
	2007	940	28.4	28.4	20.5	18.6	31.0	0.9	0.5	32.9	24.2
England	2003	690	43.1	43.1	14.1	13.6	29.3	0.0	0.0	39.8	46.3
	2007	554	44.3	44.3	8.9	15.4	29.9	1.2	0.2	42.7	46.0
Ghana	2003	1227	28.6	28.6	18.6	18.4	34.4	0.0	0.0	26.1	30.7
	2007	763	30.2	30.2	17.1	17.0	31.3	1.8	2.6	28.2	31.8
Hong Kong SAR	2003	1223	38.8	38.8	7.2	23.6	30.4	0.0	0.0	40.2	37.5
	2007	494	41.6	41.6	8.4	15.5	33.4	0.6	0.5	37.2	46.3
Hungary	2003	815	53.0	53.0	4.5	8.4	34.1	0.0	0.0	48.5	57.8
	2007	578	46.9	46.9	5.5	9.3	37.6	0.4	0.2	43.7	50.1
Indonesia	2003	1400	22.6	22.6	21.6	19.8	36.0	0.0	0.0	23.3	21.9
	2007	599	21.4	21.4	16.8	16.1	44.0	1.1	0.6	23.2	19.4
Iran, Islamic Rep. of	2003	1217	67.2	67.2	12.9	8.2	11.7	0.0	0.0	70.5	65.0
	2007	566	59.1	59.1	11.7	14.0	13.0	1.6	0.6	66.5	53.1
Israel	2003	1058	37.7	37.7	12.4	13.8	36.1	0.0	0.0	39.3	36.1
	2007	476	32.5	32.5	17.3	16.1	31.3	2.4	0.3	33.3	31.5
Italy	2003	1027	28.9	28.9	17.5	18.2	35.5	0.0	0.0	28.5	29.2
	2007	624	25.9	25.9	18.1	17.1	36.4	1.5	1.0	28.6	23.3
Japan	2003	1208	43.2	43.2	2.5	13.6	40.8	0.0	0.0	41.6	44.7
	2007	618	38.7	38.7	5.0	13.0	41.7	1.5	0.2	36.5	40.7
Jordan	2003	1079	53.5	53.5	13.5	9.4	23.5	0.0	0.0	58.7	48.7
	2007	751	56.5	56.5	13.8	11.4	17.2	0.9	0.3	59.2	54.1
Korea, Rep. of	2003	1316	36.2	36.2	6.9	9.2	47.7	0.0	0.0	38.6	34.1
	2007	604	44.5	44.5	8.2	9.7	37.1	0.3	0.2	46.0	43.2
Lebanon	2003	874	38.3	38.3	15.2	17.7	28.8	0.0	0.0	36.7	40.5
	2007	537	37.7	37.7	19.0	16.6	23.4	2.5	0.8	33.6	42.4

DIFF = Percent correct
 Because of missing gender information, some totals may appear inconsistent.

Science: Chemistry / Knowing (S022208 - S05_05)
 Label: NOT a chemical change
 Type: MC Key: A

COUNTRY	Year	N	DIFF	A	B	C	D	OMIT TED	NOT REACH ED	1.GIRL %Right	2.BOY %Right
Lithuania	2003	1139	55.2	55.2	15.4	10.8	18.6	0.0	0.0	51.1	59.3
	2007	562	53.4	53.4	15.0	10.8	20.2	0.6	0.1	54.2	52.6
Malaysia	2003	1313	50.6	50.6	12.7	13.9	22.8	0.0	0.0	50.9	50.3
	2007	631	40.0	40.0	16.2	20.9	21.7	0.8	0.5	41.8	37.7
Norway	2003	991	18.5	18.5	40.2	24.7	16.6	0.0	0.0	16.0	20.9
	2007	657	16.4	16.4	39.4	28.0	13.7	1.4	1.0	13.3	19.5
Palestinian Nat'l Auth.	2003	1324	36.3	36.3	10.8	13.9	39.1	0.0	0.0	36.7	35.8
	2007	624	28.0	28.0	15.0	16.5	39.1	0.9	0.4	26.1	29.9
Romania	2003	994	47.2	47.2	11.0	15.2	26.6	0.0	0.0	46.8	47.6
	2007	590	41.5	41.5	11.0	15.8	28.6	1.2	1.8	41.5	41.4
Russian Federation	2003	1152	49.4	49.4	9.8	8.4	32.5	0.0	0.0	48.3	50.4
	2007	641	50.6	50.6	9.0	8.7	28.9	2.5	0.2	54.9	46.3
Scotland	2003	853	33.0	33.0	20.3	14.8	31.9	0.0	0.0	30.0	36.1
	2007	573	33.2	33.2	17.1	19.2	29.2	1.2	0.1	28.9	37.7
Serbia	2003	1050	40.8	40.8	17.0	11.6	30.6	0.0	0.0	39.9	41.8
	2007	565	43.4	43.4	12.3	7.8	35.4	0.9	0.2	49.5	37.2
Singapore	2003	1510	73.8	73.8	7.6	5.7	13.0	0.0	0.0	75.1	72.5
	2007	662	64.4	64.4	9.3	11.0	15.0	0.3	0.0	67.8	60.9
Slovenia	2003	847	52.2	52.2	24.6	10.0	13.1	0.0	0.0	53.4	51.1
	2007	570	49.7	49.7	17.6	13.2	16.8	2.7	0.0	50.0	49.3
Sweden	2003	1041	30.2	30.2	16.2	16.9	36.7	0.0	0.0	26.5	33.7
	2007	758	27.0	27.0	14.1	20.9	36.3	1.7	0.0	25.5	28.3
Tunisia	2003	1034	43.6	43.6	12.4	17.4	26.6	0.0	0.0	39.7	47.7
	2007	583	32.2	32.2	16.4	15.5	29.7	5.1	1.2	35.9	28.1
United States	2003	2198	45.9	45.9	18.0	15.2	20.9	0.0	0.0	45.4	46.4
	2007	1052	46.9	46.9	18.5	12.5	20.7	1.0	0.3	46.5	47.3
International Avg.	2003	1162	43.4	43.4	14.6	13.9	28.1	0.0	0.0	42.8	44.0
	2007	626	41.5	41.5	14.3	14.4	27.6	1.5	0.6	41.5	41.5
Basque Country, Spain	2003	614	24.2	24.2	15.3	33.2	27.4	0.0	0.0	18.3	30.1
	2007	317	31.0	31.0	19.1	21.3	27.9	0.6	0.2	26.7	35.4
Ontario, Canada	2003	1044	37.4	37.4	18.2	17.1	27.3	0.0	0.0	36.7	38.2
	2007	501	38.0	38.0	17.4	17.5	25.8	0.8	0.6	32.1	43.0
Quebec, Canada	2003	1096	45.3	45.3	15.7	12.4	26.6	0.0	0.0	42.6	48.1
	2007	570	48.1	48.1	17.2	11.3	19.8	2.7	0.8	48.3	47.9

DIFF = Percent correct
 Because of missing gender information, some totals may appear inconsistent.

Science: Earth Science / Applying (S022078 - S05_06)
 Label: Light from sun and moon
 Type: CR Key: -

COUNTRY	Year	N	10	19	70	71	79	OMIT TED	NOT REACH ED	V1	1.GIRL %Right	2.BOY %Right
Armenia	2003	550	77.9	1.9	2.4	0.2	17.6	0.0	0.0	79.7	79.4	80.1
	2007	675	22.5	4.2	21.1	1.9	5.5	43.1	1.8	26.7	28.1	25.3
Australia	2003	1071	77.2	0.0	1.3	5.4	16.1	0.0	0.0	77.2	74.3	80.2
	2007	579	62.6	0.0	0.7	2.7	21.8	11.8	0.4	62.6	53.7	71.1
Bahrain	2003	766	45.5	1.5	2.8	11.1	39.1	0.0	0.0	47.0	49.6	43.9
	2007	595	35.5	0.3	1.8	11.0	32.3	18.1	1.1	35.8	40.0	31.9
Botswana	2003	1017	14.9	0.7	1.5	11.1	71.8	0.0	0.0	15.6	12.8	18.5
	2007	603	10.1	0.0	0.3	8.0	63.3	15.4	2.9	10.1	8.8	11.6
Bulgaria	2003	621	65.9	1.6	4.7	7.8	20.1	0.0	0.0	67.4	65.8	68.7
	2007	436	36.4	0.0	1.7	5.0	13.8	41.5	1.6	36.4	38.2	35.0
Chinese Taipei	2003	1197	68.7	0.1	15.0	7.7	8.5	0.0	0.0	68.8	65.8	71.4
	2007	577	56.0	0.0	9.8	4.8	14.1	15.3	0.0	56.0	50.0	61.4
Cyprus	2003	657	65.8	0.2	5.7	7.0	21.3	0.0	0.0	66.0	66.6	65.6
	2007	625	39.0	0.7	4.0	2.7	17.0	36.5	0.0	39.7	38.2	41.3
Egypt	2003	1548	33.4	2.1	1.1	2.4	60.9	0.0	0.0	35.5	32.8	38.0
	2007	941	20.4	0.2	7.3	4.5	44.2	22.9	0.5	20.6	21.5	19.7
England	2003	650	79.0	0.0	1.5	7.2	12.3	0.0	0.0	79.0	77.5	80.5
	2007	554	71.5	0.0	3.3	3.7	13.9	7.3	0.2	71.5	69.6	73.4
Ghana	2003	487	12.2	0.3	0.2	1.6	85.7	0.0	0.0	12.5	5.9	17.1
	2007	763	5.7	0.0	1.2	2.6	34.3	53.2	2.9	5.7	3.9	7.2
Hong Kong SAR	2003	1099	69.2	0.0	5.1	11.1	14.6	0.0	0.0	69.2	69.8	68.6
	2007	494	53.7	0.2	3.1	6.7	22.7	12.9	0.7	53.9	53.1	54.6
Hungary	2003	691	84.9	0.1	1.5	4.6	8.8	0.0	0.0	85.0	79.3	90.0
	2007	578	62.0	0.0	1.7	5.6	12.9	17.6	0.2	62.0	53.1	70.5
Indonesia	2003	1147	49.5	1.2	4.2	6.0	39.1	0.0	0.0	50.7	48.9	52.7
	2007	599	35.9	0.2	3.6	3.8	43.3	12.7	0.6	36.1	33.3	39.0
Iran, Islamic Rep. of	2003	867	63.2	2.3	3.6	5.2	25.8	0.0	0.0	65.4	65.9	65.1
	2007	566	43.4	0.0	2.3	7.0	21.1	25.3	0.8	43.4	47.4	40.3
Israel	2003	779	69.5	0.2	3.2	5.1	22.0	0.0	0.0	69.7	67.4	71.9
	2007	476	37.8	0.0	2.8	2.1	21.4	35.7	0.3	37.8	34.6	41.3
Italy	2003	770	77.5	0.2	3.1	2.8	16.5	0.0	0.0	77.6	76.6	78.6
	2007	633	53.4	0.0	3.9	1.0	13.0	27.6	1.0	53.4	50.6	56.1
Japan	2003	1103	76.3	0.0	9.2	3.3	11.2	0.0	0.0	76.3	76.9	75.7
	2007	618	68.9	0.0	6.5	1.2	13.6	9.7	0.2	68.9	67.9	69.9
Jordan	2003	918	54.3	1.4	2.4	2.5	39.4	0.0	0.0	55.7	53.9	57.4
	2007	751	48.4	0.0	1.9	4.1	30.6	14.6	0.3	48.4	47.0	49.7
Korea, Rep. of	2003	1228	70.6	0.2	8.6	6.9	13.7	0.0	0.0	70.7	65.9	75.1
	2007	604	69.1	0.0	7.2	4.8	12.1	6.5	0.3	69.1	68.2	70.0
Lebanon	2003	432	45.7	0.7	16.1	0.0	37.5	0.0	0.0	46.3	43.9	49.5
	2007	540	22.4	2.0	0.4	0.7	31.2	42.4	0.9	24.4	23.9	24.9

V1 = Percent scoring 1 or better V2 = Percent scoring 2 or better
 Percent right for boys and girls corresponds to the percent obtaining the maximum score on the item.
 Because of missing gender information, some totals may appear inconsistent.

Science: Earth Science / Applying (S022078 - S05_06)
 Label: Light from sun and moon
 Type: CR Key: -

COUNTRY	Year	N	10	19	70	71	79	OMIT TED	NOT REACH ED	V1	1.GIRL %Right	2.BOY %Right
Lithuania	2003	852	69.2	0.3	1.1	9.7	19.7	0.0	0.0	69.5	76.0	63.6
	2007	567	49.9	0.0	1.9	8.6	12.0	27.5	0.1	49.9	52.6	47.1
Malaysia	2003	1150	51.5	0.3	4.5	16.4	27.2	0.0	0.0	51.8	48.3	55.0
	2007	631	35.2	0.3	2.8	5.4	35.7	20.2	0.5	35.4	33.0	38.6
Norway	2003	894	77.4	0.0	2.8	4.3	15.4	0.0	0.0	77.4	76.8	78.1
	2007	657	61.3	0.0	3.6	3.4	14.8	15.9	1.0	61.3	59.7	62.9
Palestinian Nat'l Auth.	2003	1114	44.4	1.1	2.3	11.1	41.1	0.0	0.0	45.5	47.0	43.7
	2007	624	31.3	1.7	3.3	5.8	42.9	14.6	0.4	33.0	33.0	33.0
Romania	2003	691	71.8	0.1	3.3	4.8	19.9	0.0	0.0	71.9	70.0	74.0
	2007	592	42.7	0.0	0.5	0.1	21.7	33.1	1.9	42.7	37.0	49.1
Russian Federation	2003	918	81.7	0.1	4.6	4.5	9.2	0.0	0.0	81.8	80.9	82.5
	2007	641	64.6	0.0	2.2	1.9	7.0	24.1	0.2	64.6	61.2	67.9
Scotland	2003	769	77.4	0.0	0.7	2.5	19.5	0.0	0.0	77.4	71.6	83.1
	2007	573	61.8	0.0	1.3	3.7	19.3	13.8	0.1	61.8	55.9	68.0
Serbia	2003	688	66.1	0.6	2.5	7.3	23.4	0.0	0.0	66.8	67.9	65.6
	2007	573	35.4	0.7	2.5	4.7	13.2	43.2	0.2	36.1	36.6	35.6
Singapore	2003	1411	74.5	0.0	2.4	9.7	13.4	0.0	0.0	74.5	70.9	77.8
	2007	662	69.0	0.0	1.6	9.1	13.1	7.3	0.0	69.0	67.7	70.3
Slovenia	2003	733	68.6	0.2	6.2	4.1	20.8	0.0	0.0	68.8	65.6	71.8
	2007	570	67.0	0.0	3.1	3.6	17.8	8.5	0.0	67.0	66.8	67.2
Sweden	2003	915	78.5	0.0	2.4	2.4	16.7	0.0	0.0	78.5	75.7	81.1
	2007	759	59.4	0.1	3.7	4.5	16.1	16.2	0.0	59.5	57.4	61.5
Tunisia	2003	684	29.0	1.0	3.1	3.1	63.8	0.0	0.0	30.0	23.8	35.9
	2007	584	26.2	0.3	2.2	3.1	40.1	26.8	1.3	26.4	23.1	30.0
United States	2003	2073	72.5	0.2	1.9	6.3	19.1	0.0	0.0	72.7	68.3	77.4
	2007	1052	63.1	0.0	3.9	8.5	17.1	7.0	0.4	63.1	61.0	65.5
International Avg.	2003	924	62.5	0.6	4.0	5.9	27.0	0.0	0.0	63.1	61.3	64.8
	2007	627	46.1	0.3	3.6	4.4	22.8	22.1	0.7	46.4	44.7	48.2
Basque Country, Spain	2003	475	65.7	0.9	5.6	9.0	18.9	0.0	0.0	66.5	67.7	65.3
	2007	317	52.4	0.0	1.5	7.4	18.6	19.9	0.2	52.4	46.4	58.6
Ontario, Canada	2003	945	78.5	0.2	1.7	4.4	15.2	0.0	0.0	78.7	74.0	83.8
	2007	501	64.5	0.0	2.8	9.2	10.7	12.1	0.6	64.5	61.0	67.6
Quebec, Canada	2003	1001	77.0	0.5	2.4	2.2	18.0	0.0	0.0	77.5	75.0	79.9
	2007	570	57.8	0.2	4.0	5.6	18.7	12.9	0.8	57.9	50.2	64.9

V1 = Percent scoring 1 or better V2 = Percent scoring 2 or better
 Percent right for boys and girls corresponds to the percent obtaining the maximum score on the item.
 Because of missing gender information, some totals may appear inconsistent.

Science: Biology / Knowing (S022126 - S05_07)
 Label: Function of chlorophyll
 Type: MC Key: A

COUNTRY	Year	N	DIFF	A	B	C	D	OMIT TED	NOT REACH ED	1.GIRL %Right	2.BOY %Right
Armenia	2003	1220	65.3	65.3	13.3	8.3	13.0	0.0	0.0	65.9	64.7
	2007	674	63.1	63.1	14.1	4.8	7.5	7.2	3.2	61.1	65.1
Australia	2003	1171	54.6	54.6	27.8	5.1	12.5	0.0	0.0	52.9	56.3
	2007	579	51.7	51.7	27.9	4.4	14.0	1.6	0.4	49.9	53.4
Bahrain	2003	1017	50.9	50.9	21.4	6.9	20.9	0.0	0.0	54.1	47.7
	2007	595	70.0	70.0	10.0	3.5	14.2	1.1	1.2	78.3	62.2
Botswana	2003	1242	47.6	47.6	14.8	11.6	26.0	0.0	0.0	48.0	47.1
	2007	603	40.5	40.5	16.2	13.4	24.8	1.9	3.2	40.7	40.3
Bulgaria	2003	954	56.0	56.0	24.0	5.8	14.2	0.0	0.0	57.9	54.3
	2007	436	51.3	51.3	23.3	9.2	10.8	3.6	1.7	50.1	52.3
Chinese Taipei	2003	1344	68.0	68.0	29.4	0.7	1.9	0.0	0.0	68.4	67.6
	2007	577	70.0	70.0	27.5	1.0	1.5	0.0	0.0	73.7	66.6
Cyprus	2003	975	42.9	42.9	26.9	7.1	23.2	0.0	0.0	42.4	43.3
	2007	625	40.3	40.3	30.5	6.1	21.6	1.4	0.1	38.9	41.7
Egypt	2003	1732	45.6	45.6	14.6	13.4	26.4	0.0	0.0	42.9	48.0
	2007	938	45.4	45.4	15.4	15.2	22.6	0.7	0.5	48.0	43.0
England	2003	694	73.2	73.2	15.2	3.2	8.5	0.0	0.0	77.1	69.4
	2007	554	74.9	74.9	14.5	2.7	6.1	1.1	0.6	74.1	75.8
Ghana	2003	1212	40.2	40.2	15.7	17.1	27.1	0.0	0.0	36.3	43.3
	2007	763	46.3	46.3	14.2	14.0	21.5	0.8	3.2	44.7	47.6
Hong Kong SAR	2003	1226	71.1	71.1	25.5	0.7	2.7	0.0	0.0	69.2	72.9
	2007	494	66.9	66.9	28.1	1.0	3.1	0.2	0.7	66.0	67.8
Hungary	2003	793	24.3	24.3	36.0	11.7	27.9	0.0	0.0	25.7	23.0
	2007	578	18.7	18.7	29.8	13.9	35.5	2.0	0.2	16.5	20.8
Indonesia	2003	1402	60.3	60.3	21.8	3.6	14.4	0.0	0.0	58.9	61.7
	2007	599	65.6	65.6	14.3	4.7	12.1	2.4	0.9	65.7	65.4
Iran, Islamic Rep. of	2003	1197	50.2	50.2	22.3	8.0	19.6	0.0	0.0	57.2	45.3
	2007	566	30.5	30.5	25.2	16.4	23.8	3.1	1.0	30.0	30.8
Israel	2003	1044	57.4	57.4	22.2	8.2	12.2	0.0	0.0	58.5	56.3
	2007	476	42.3	42.3	26.7	8.1	18.5	4.0	0.3	42.7	41.8
Italy	2003	1030	61.7	61.7	28.3	1.6	8.4	0.0	0.0	63.4	59.9
	2007	630	58.0	58.0	25.5	2.0	10.7	2.7	1.0	55.7	60.1
Japan	2003	1211	68.0	68.0	27.5	2.3	2.2	0.0	0.0	67.6	68.4
	2007	618	72.0	72.0	22.2	1.5	3.5	0.7	0.2	76.9	67.4
Jordan	2003	1085	59.1	59.1	10.5	6.1	24.3	0.0	0.0	61.6	56.8
	2007	751	60.0	60.0	8.5	5.1	25.3	0.8	0.3	59.6	60.3
Korea, Rep. of	2003	1320	67.6	67.6	25.0	1.0	6.4	0.0	0.0	65.8	69.2
	2007	604	73.7	73.7	19.8	2.9	3.3	0.0	0.3	75.1	72.4
Lebanon	2003	853	43.2	43.2	24.6	13.0	19.2	0.0	0.0	43.7	42.5
	2007	527	48.3	48.3	20.7	12.2	13.4	3.7	1.7	51.0	45.4

DIFF = Percent correct
 Because of missing gender information, some totals may appear inconsistent.

Science: Biology / Knowing (S022126 - S05_07)
 Label: Function of chlorophyll
 Type: MC Key: A

COUNTRY	Year	N	DIFF	A	B	C	D	OMIT TED	NOT REACH ED	1.GIRL %Right	2.BOY %Right
Lithuania	2003	1127	34.7	34.7	48.5	2.2	14.6	0.0	0.0	34.4	35.1
	2007	563	36.4	36.4	44.4	4.3	13.2	1.6	0.1	39.7	33.0
Malaysia	2003	1306	55.9	55.9	21.5	4.2	18.4	0.0	0.0	60.2	51.7
	2007	631	57.7	57.7	19.0	6.1	15.5	1.1	0.7	57.0	58.4
Norway	2003	984	37.1	37.1	28.6	12.0	22.3	0.0	0.0	38.3	36.1
	2007	657	37.1	37.1	27.2	11.2	21.6	1.9	1.0	40.3	34.0
Palestinian Nat'l Auth.	2003	1325	61.6	61.6	10.5	9.9	18.0	0.0	0.0	66.4	55.8
	2007	624	57.6	57.6	12.5	7.2	21.1	1.2	0.4	62.1	53.0
Romania	2003	998	48.1	48.1	24.8	5.1	22.0	0.0	0.0	45.1	51.4
	2007	591	44.3	44.3	26.1	6.8	19.1	1.7	1.9	43.5	45.2
Russian Federation	2003	1148	65.6	65.6	23.4	2.3	8.6	0.0	0.0	68.0	63.3
	2007	641	57.6	57.6	26.0	3.3	10.2	2.4	0.5	56.7	58.5
Scotland	2003	851	60.4	60.4	19.5	5.2	14.9	0.0	0.0	60.6	60.2
	2007	573	58.6	58.6	22.1	4.7	12.9	1.6	0.1	63.3	53.5
Serbia	2003	1052	45.4	45.4	34.1	3.8	16.7	0.0	0.0	41.7	49.1
	2007	569	53.3	53.3	29.0	2.8	13.4	1.3	0.2	54.4	52.3
Singapore	2003	1513	86.7	86.7	8.3	1.5	3.5	0.0	0.0	86.8	86.5
	2007	662	83.0	83.0	10.0	2.2	4.8	0.0	0.0	85.2	80.7
Slovenia	2003	849	55.8	55.8	30.9	2.6	10.6	0.0	0.0	55.4	56.2
	2007	570	54.4	54.4	35.6	1.8	6.6	1.7	0.0	54.3	54.4
Sweden	2003	1035	47.7	47.7	36.2	5.3	10.8	0.0	0.0	46.3	49.0
	2007	759	40.7	40.7	36.7	8.1	12.6	1.7	0.1	40.3	41.2
Tunisia	2003	1134	55.2	55.2	3.5	7.4	34.0	0.0	0.0	55.3	55.0
	2007	584	51.4	51.4	11.2	6.7	25.5	3.2	1.9	50.1	52.8
United States	2003	2191	59.1	59.1	28.3	4.3	8.3	0.0	0.0	59.2	58.9
	2007	1052	58.3	58.3	27.9	3.4	8.2	1.4	0.7	58.4	58.2
International Avg.	2003	1159	55.2	55.2	23.2	6.1	15.6	0.0	0.0	55.6	54.7
	2007	626	53.9	53.9	22.5	6.4	14.5	1.8	0.9	54.7	53.2
Basque Country, Spain	2003	619	39.6	39.6	26.5	7.1	26.8	0.0	0.0	37.7	41.6
	2007	317	43.7	43.7	26.4	4.9	22.8	2.1	0.2	43.0	44.5
Ontario, Canada	2003	1037	61.8	61.8	23.4	3.0	11.8	0.0	0.0	60.3	63.4
	2007	501	59.5	59.5	20.3	3.0	15.8	0.8	0.6	59.4	59.6
Quebec, Canada	2003	1095	69.1	69.1	14.6	4.1	12.2	0.0	0.0	69.6	68.5
	2007	570	53.3	53.3	19.4	7.3	17.3	1.7	1.0	55.0	51.8

DIFF = Percent correct
 Because of missing gender information, some totals may appear inconsistent.

Science: Physics / Applying (S022281 - S05_08)

Label: Mass of freezing water

Type: CR Key: -

COUNTRY	Year	N	10	11	12	19	70	71	72	79	OMIT TED	NOT REACH ED	V1	1.GIRL %Right	2.BOY %Right
Armenia	2003	1258	23.6	4.5	7.3	0.4	13.2	22.3	27.1	1.6	0.0	0.0	35.8	38.3	33.2
	2007	675	24.1	3.6	8.7	0.1	5.8	10.4	37.6	0.9	5.5	3.2	36.5	38.0	35.1
Australia	2003	1174	26.1	0.9	0.7	0.3	13.2	49.0	9.4	0.4	0.0	0.0	28.0	29.6	26.3
	2007	579	29.7	1.0	0.6	0.0	12.7	46.4	7.8	0.2	1.2	0.4	31.4	26.7	35.8
Bahrain	2003	989	17.4	0.6	1.2	0.6	18.2	42.4	17.1	2.4	0.0	0.0	19.9	25.1	14.4
	2007	595	16.8	0.6	3.7	0.1	12.3	38.7	16.1	5.3	5.0	1.4	21.2	24.3	18.2
Botswana	2003	1196	4.4	0.3	0.8	0.2	24.3	53.0	11.0	6.0	0.0	0.0	5.7	5.9	5.5
	2007	603	4.1	0.8	0.2	0.2	21.5	40.4	11.8	12.0	5.3	3.7	5.3	6.8	3.6
Bulgaria	2003	937	26.5	0.8	0.0	0.2	12.1	38.1	20.5	1.8	0.0	0.0	27.5	26.3	28.5
	2007	435	19.0	0.1	0.0	0.0	11.7	33.6	23.5	1.6	8.8	1.7	19.1	19.7	18.7
Chinese Taipei	2003	1337	50.4	1.2	0.7	0.1	9.2	27.3	10.9	0.1	0.0	0.0	52.5	55.8	49.6
	2007	577	42.3	0.7	0.0	0.2	15.8	20.5	19.7	0.7	0.1	0.0	43.2	46.1	40.5
Cyprus	2003	960	23.6	0.3	0.3	0.0	16.6	40.3	18.1	0.8	0.0	0.0	24.2	25.7	22.9
	2007	625	30.4	0.0	0.2	0.0	15.0	32.2	17.4	1.3	3.5	0.1	30.6	32.6	28.4
Egypt	2003	1739	7.3	0.6	2.1	0.1	21.0	48.3	17.8	2.8	0.0	0.0	10.1	11.0	9.3
	2007	941	4.2	0.4	1.1	0.0	22.2	45.6	18.6	1.9	5.4	0.5	5.7	7.4	4.1
England	2003	692	35.0	0.5	0.9	0.0	8.9	45.1	9.3	0.3	0.0	0.0	36.5	34.9	38.1
	2007	554	35.0	1.2	1.2	0.0	7.2	44.4	8.5	0.7	1.1	0.6	37.4	37.1	37.8
Ghana	2003	843	6.8	0.6	1.2	0.4	24.2	36.9	18.6	11.3	0.0	0.0	9.0	8.1	9.8
	2007	763	5.1	0.5	0.5	0.0	13.1	26.2	11.4	9.7	30.2	3.2	6.2	4.2	7.8
Hong Kong SAR	2003	1214	27.3	2.7	1.7	1.0	21.2	35.6	10.0	0.4	0.0	0.0	32.7	34.3	31.1
	2007	494	28.3	2.5	1.4	0.0	24.8	27.1	12.7	1.7	0.8	0.7	32.2	31.6	32.8
Hungary	2003	810	39.8	0.4	0.4	0.1	13.8	37.3	7.5	0.7	0.0	0.0	40.7	34.2	47.4
	2007	578	28.2	0.2	0.1	0.0	15.9	45.2	9.2	0.3	0.6	0.2	28.5	29.6	27.5
Indonesia	2003	1171	14.2	1.5	4.0	0.5	25.4	40.7	8.9	4.8	0.0	0.0	20.2	18.1	22.5
	2007	599	8.9	1.2	2.7	0.4	19.6	34.6	8.3	13.4	10.0	1.0	13.2	13.3	13.1
Iran, Islamic Rep. of	2003	1200	22.7	1.8	0.9	0.3	15.2	40.0	18.8	0.3	0.0	0.0	25.7	28.4	23.8
	2007	566	14.1	1.5	2.7	0.0	18.1	42.6	16.4	0.5	2.7	1.2	18.4	19.2	17.7
Israel	2003	1037	43.2	0.7	1.5	0.3	11.9	28.1	13.5	0.9	0.0	0.0	45.6	48.7	42.5
	2007	476	41.9	0.2	0.8	0.0	14.6	22.1	11.7	4.0	4.0	0.7	42.9	42.6	43.2
Italy	2003	1014	21.9	0.2	1.5	0.1	16.8	48.2	10.7	0.6	0.0	0.0	23.7	25.1	22.3
	2007	633	20.6	0.7	0.2	0.0	15.8	46.4	11.6	0.5	3.0	1.2	21.4	22.6	20.3
Japan	2003	1203	44.8	0.7	2.5	0.0	14.1	30.3	7.1	0.5	0.0	0.0	48.0	50.8	45.3
	2007	618	47.9	1.0	3.4	0.2	13.7	26.8	4.8	1.0	1.0	0.2	52.4	50.2	54.5
Jordan	2003	1062	17.0	0.5	4.6	0.9	16.0	42.9	14.5	3.6	0.0	0.0	23.1	25.0	21.3
	2007	751	21.6	0.3	0.0	0.0	11.1	52.5	7.5	2.1	4.6	0.3	21.9	30.4	14.4
Korea, Rep. of	2003	1316	41.1	1.0	0.5	0.1	9.1	45.2	2.6	0.3	0.0	0.0	42.7	42.0	43.4
	2007	604	40.9	0.7	0.5	0.0	7.8	48.0	1.8	0.0	0.0	0.3	42.1	43.3	41.0
Lebanon	2003	874	32.9	0.6	0.2	0.2	40.5	8.7	16.1	0.9	0.0	0.0	33.8	33.3	34.5
	2007	540	26.0	0.2	0.7	0.8	15.1	29.9	19.3	2.1	4.2	1.7	27.7	27.6	27.9

V1 = Percent scoring 1 or better V2 = Percent scoring 2 or better
 Percent right for boys and girls corresponds to the percent obtaining the maximum score on the item.
 Because of missing gender information, some totals may appear inconsistent.

Science: Physics / Applying (S022281 - S05_08)
 Label: Mass of freezing water
 Type: CR Key: -

COUNTRY	Year	N	10	11	12	19	70	71	72	79	OMIT TED	NOT REACH ED	V1	1.GIRL %Right	2.BOY %Right
Lithuania	2003	1120	36.9	0.4	1.2	0.0	10.6	29.0	21.3	0.6	0.0	0.0	38.5	41.1	35.9
	2007	567	33.8	1.1	0.4	0.0	15.4	37.4	10.5	0.1	1.0	0.1	35.4	36.7	34.1
Malaysia	2003	1296	20.8	2.7	2.3	0.4	27.0	35.4	10.6	0.8	0.0	0.0	26.2	26.0	26.4
	2007	631	15.9	1.4	1.6	0.4	24.9	33.7	13.1	1.9	6.2	0.9	19.3	19.7	18.7
Norway	2003	993	16.1	0.4	1.0	0.0	22.1	48.4	11.0	1.0	0.0	0.0	17.5	15.8	19.2
	2007	657	13.0	0.1	0.8	0.0	18.0	55.3	10.7	0.1	1.1	1.0	13.9	13.9	13.9
Palestinian Nat'l Auth.	2003	1282	19.1	0.3	0.6	0.5	19.5	39.1	18.3	2.7	0.0	0.0	20.4	23.1	17.2
	2007	623	9.9	0.2	0.8	0.4	16.1	43.7	15.5	9.1	3.8	0.4	11.4	15.1	7.6
Romania	2003	969	22.4	0.4	0.5	0.3	13.1	43.6	18.9	0.9	0.0	0.0	23.6	23.5	23.6
	2007	592	21.2	0.0	0.0	0.0	12.4	41.3	19.1	1.6	2.5	1.9	21.2	19.5	23.1
Russian Federation	2003	1135	26.4	1.7	0.1	0.0	19.3	41.1	11.3	0.1	0.0	0.0	28.2	27.7	28.7
	2007	641	26.2	1.4	0.1	0.0	15.4	36.6	15.6	0.0	3.9	0.8	27.7	26.8	28.6
Scotland	2003	855	23.9	2.2	1.0	0.0	16.2	45.4	10.5	0.7	0.0	0.0	27.2	27.5	26.8
	2007	573	23.0	1.5	0.9	0.0	17.9	44.6	10.3	0.1	1.5	0.1	25.4	25.1	25.7
Serbia	2003	1022	29.4	0.4	0.2	0.4	13.0	34.3	21.9	0.5	0.0	0.0	30.4	31.7	29.0
	2007	573	22.5	0.1	0.1	0.0	17.0	35.4	19.6	0.9	4.1	0.2	22.7	25.4	20.1
Singapore	2003	1501	31.9	2.1	1.2	0.0	15.0	39.7	9.5	0.5	0.0	0.0	35.2	36.2	34.2
	2007	662	35.1	2.3	1.4	0.0	16.5	34.2	9.6	0.4	0.5	0.0	38.8	33.4	44.4
Slovenia	2003	862	43.8	0.1	1.4	0.1	10.4	29.3	14.0	0.7	0.0	0.0	45.5	47.6	43.5
	2007	570	42.0	0.0	1.1	0.0	11.0	31.7	10.4	1.4	2.4	0.0	43.1	47.8	37.9
Sweden	2003	1035	30.3	0.4	1.5	0.0	14.9	42.0	10.4	0.4	0.0	0.0	32.2	31.0	33.4
	2007	759	23.1	0.9	0.3	0.2	17.8	46.3	9.2	0.8	1.2	0.1	24.5	23.9	25.1
Tunisia	2003	1172	14.3	0.8	0.3	0.1	15.5	54.6	13.9	0.5	0.0	0.0	15.5	13.9	17.1
	2007	581	23.2	0.3	1.0	0.0	13.8	41.0	16.3	1.3	1.1	2.1	24.5	24.7	24.3
United States	2003	2180	34.9	1.2	0.9	0.1	15.0	40.7	6.2	1.0	0.0	0.0	37.1	35.7	38.6
	2007	1052	32.9	0.6	0.2	0.5	16.1	38.8	8.1	0.0	2.1	0.7	34.2	34.8	33.5
International Avg.	2003	1135	26.6	1.0	1.4	0.2	16.9	38.9	13.5	1.5	0.0	0.0	29.2	29.7	28.6
	2007	627	24.6	0.8	1.1	0.1	15.3	37.4	13.4	2.4	3.9	0.9	26.7	27.3	26.0
Basque Country, Spain	2003	617	33.9	0.2	0.1	0.0	8.6	45.9	10.6	0.5	0.0	0.0	34.3	38.0	30.6
	2007	317	27.8	0.0	0.0	0.0	13.2	47.2	9.2	0.2	2.2	0.2	27.8	28.1	27.4
Ontario, Canada	2003	1034	30.4	2.0	1.1	0.0	18.2	41.2	6.2	0.9	0.0	0.0	33.5	30.5	36.9
	2007	501	20.8	1.4	0.8	0.0	20.8	43.6	7.8	0.8	3.3	0.8	22.9	22.4	23.4
Quebec, Canada	2003	1095	27.0	1.2	1.5	0.2	17.3	44.6	7.1	1.2	0.0	0.0	29.8	28.2	31.4
	2007	570	34.3	2.1	2.6	0.0	12.6	36.4	7.9	1.0	2.1	1.0	39.0	35.1	42.5

V1 = Percent scoring 1 or better V2 = Percent scoring 2 or better
 Percent right for boys and girls corresponds to the percent obtaining the maximum score on the item.
 Because of missing gender information, some totals may appear inconsistent.

Science: Biology / Knowing (S032385 - S05_09)
 Label: Characteristic found only in mammals
 Type: MC Key: B

COUNTRY	Year	N	DIFF	A	B	C	D	OMIT TED	NOT REACH ED	1.GIRL %Right	2.BOY %Right
Armenia	2003	1289	80.8	6.2	80.8	6.1	6.9	0.0	0.0	81.3	80.3
	2007	673	73.0	6.3	73.0	5.6	7.8	3.6	3.7	69.8	76.2
Australia	2003	1173	60.9	14.8	60.9	15.3	9.0	0.0	0.0	58.1	63.9
	2007	579	55.8	15.0	55.8	15.5	11.9	1.2	0.6	53.8	57.6
Bahrain	2003	1017	69.4	7.0	69.4	12.3	11.2	0.0	0.0	77.1	61.5
	2007	595	65.8	7.4	65.8	13.1	11.7	0.4	1.6	72.0	60.1
Botswana	2003	1248	54.5	7.4	54.5	12.7	25.4	0.0	0.0	52.4	56.7
	2007	604	53.5	8.4	53.5	11.2	19.0	3.2	4.7	55.3	51.4
Bulgaria	2003	975	76.3	10.0	76.3	6.6	7.2	0.0	0.0	75.4	77.0
	2007	436	70.0	12.8	70.0	9.4	4.5	1.6	1.7	64.6	74.1
Chinese Taipei	2003	1343	84.4	4.1	84.4	7.1	4.4	0.0	0.0	84.0	84.7
	2007	577	90.6	2.2	90.6	3.8	3.1	0.2	0.0	93.3	88.1
Cyprus	2003	978	74.2	8.6	74.2	9.4	7.8	0.0	0.0	79.2	70.0
	2007	625	72.4	8.1	72.4	9.3	8.9	1.2	0.1	72.9	71.9
Egypt	2003	1745	50.1	11.9	50.1	15.7	22.4	0.0	0.0	50.6	49.5
	2007	938	40.2	12.4	40.2	17.0	29.1	0.8	0.5	44.1	36.5
England	2003	689	45.7	19.0	45.7	21.4	13.8	0.0	0.0	46.4	45.1
	2007	554	52.7	14.8	52.7	17.2	12.4	2.3	0.6	50.5	55.0
Ghana	2003	1194	29.7	20.4	29.7	21.8	28.1	0.0	0.0	25.7	33.0
	2007	763	31.4	18.6	31.4	21.6	22.5	2.3	3.5	30.2	32.4
Hong Kong SAR	2003	1228	89.2	3.6	89.2	4.5	2.7	0.0	0.0	88.3	90.2
	2007	494	86.5	4.6	86.5	4.8	3.0	0.4	0.7	88.9	83.9
Hungary	2003	815	77.2	11.9	77.2	8.1	2.8	0.0	0.0	75.8	78.7
	2007	578	77.7	9.9	77.7	6.5	4.7	0.9	0.3	78.1	77.2
Indonesia	2003	1413	69.2	9.2	69.2	9.4	12.2	0.0	0.0	70.7	67.7
	2007	599	55.2	10.0	55.2	13.4	18.9	1.3	1.2	58.1	52.2
Iran, Islamic Rep. of	2003	1213	70.2	10.0	70.2	10.4	9.4	0.0	0.0	71.0	69.6
	2007	566	60.5	8.5	60.5	10.9	16.9	1.6	1.6	63.4	58.1
Israel	2003	1056	76.8	6.0	76.8	9.7	7.4	0.0	0.0	78.1	75.6
	2007	476	68.2	6.0	68.2	13.9	9.5	1.7	0.7	67.0	69.6
Italy	2003	1038	74.6	8.4	74.6	8.8	8.2	0.0	0.0	76.8	72.2
	2007	631	65.0	10.6	65.0	12.6	9.2	1.5	1.2	64.8	65.2
Japan	2003	1215	80.5	8.6	80.5	8.9	1.9	0.0	0.0	80.2	80.8
	2007	618	75.1	12.0	75.1	9.8	2.4	0.5	0.2	74.7	75.4
Jordan	2003	1091	71.1	5.8	71.1	9.1	14.1	0.0	0.0	74.4	67.9
	2007	751	72.2	5.9	72.2	7.8	13.1	0.6	0.3	79.3	66.0
Korea, Rep. of	2003	1320	53.4	15.5	53.4	20.6	10.5	0.0	0.0	52.7	54.0
	2007	604	69.8	10.7	69.8	10.4	8.5	0.3	0.3	68.1	71.3
Lebanon	2003	851	54.5	11.1	54.5	19.3	15.1	0.0	0.0	54.1	55.2
	2007	535	59.9	7.8	59.9	16.4	11.4	2.9	1.7	63.8	55.3

DIFF = Percent correct
 Because of missing gender information, some totals may appear inconsistent.

Science: Biology / Knowing (S032385 - S05_09)
 Label: Characteristic found only in mammals
 Type: MC Key: B

COUNTRY	Year	N	DIFF	A	B	C	D	OMIT TED	NOT REACH ED	1.GIRL %Right	2.BOY %Right
Lithuania	2003	1145	83.0	5.1	83.0	7.3	4.6	0.0	0.0	84.3	81.6
	2007	565	76.4	8.7	76.4	10.1	4.1	0.6	0.1	82.3	70.3
Malaysia	2003	1320	61.0	15.9	61.0	10.6	12.5	0.0	0.0	61.8	60.2
	2007	631	54.8	11.6	54.8	15.4	15.7	1.3	1.3	54.9	54.6
Norway	2003	989	52.7	11.4	52.7	24.0	11.9	0.0	0.0	54.0	51.5
	2007	657	50.9	12.8	50.9	21.3	11.4	2.4	1.1	52.4	49.5
Palestinian Nat'l Auth.	2003	1318	58.5	7.6	58.5	12.3	21.7	0.0	0.0	60.4	56.2
	2007	623	55.4	10.6	55.4	12.1	20.5	0.8	0.4	61.5	49.1
Romania	2003	994	65.7	9.3	65.7	10.1	14.9	0.0	0.0	65.3	66.2
	2007	592	65.7	12.1	65.7	8.7	10.9	0.4	2.1	67.0	64.4
Russian Federation	2003	1148	68.9	10.0	68.9	10.4	10.7	0.0	0.0	71.4	66.5
	2007	641	63.4	10.0	63.4	12.3	11.2	2.4	0.8	61.1	65.7
Scotland	2003	852	48.0	17.1	48.0	18.4	16.5	0.0	0.0	47.1	49.0
	2007	573	41.2	16.6	41.2	22.3	18.6	0.9	0.4	39.4	43.1
Serbia	2003	1046	67.7	8.9	67.7	13.4	10.0	0.0	0.0	66.5	69.0
	2007	569	67.4	7.9	67.4	15.6	8.1	0.8	0.2	67.0	67.8
Singapore	2003	1508	70.5	10.8	70.5	10.5	8.1	0.0	0.0	68.2	72.8
	2007	662	60.5	12.9	60.5	14.8	11.5	0.2	0.1	59.8	61.1
Slovenia	2003	857	83.3	6.6	83.3	5.6	4.5	0.0	0.0	82.9	83.7
	2007	570	75.9	14.0	75.9	5.5	3.2	1.4	0.0	78.4	73.1
Sweden	2003	1031	61.3	12.5	61.3	16.4	9.7	0.0	0.0	63.9	58.9
	2007	759	52.7	15.5	52.7	18.0	12.4	1.3	0.1	53.5	52.1
Tunisia	2003	1105	61.5	8.7	61.5	15.0	14.8	0.0	0.0	60.1	62.9
	2007	581	48.4	11.8	48.4	13.3	20.5	3.9	2.1	48.5	48.2
United States	2003	2192	57.3	13.5	57.3	17.5	11.7	0.0	0.0	57.1	57.5
	2007	1052	53.2	14.3	53.2	17.4	12.9	1.5	0.7	51.2	55.5
International Avg.	2003	1164	66.1	10.2	66.1	12.4	11.3	0.0	0.0	66.5	65.7
	2007	626	62.5	10.6	62.5	12.6	11.8	1.4	1.1	63.3	61.6
Basque Country, Spain	2003	618	64.5	12.6	64.5	13.0	9.9	0.0	0.0	62.1	66.8
	2007	317	60.3	13.4	60.3	12.3	11.9	1.6	0.4	56.7	64.1
Ontario, Canada	2003	1038	50.0	17.8	50.0	21.2	11.0	0.0	0.0	48.2	52.0
	2007	501	41.8	19.3	41.8	24.0	11.7	1.9	1.2	39.5	43.7
Quebec, Canada	2003	1094	61.0	8.3	61.0	14.8	16.0	0.0	0.0	59.6	62.4
	2007	570	56.3	6.7	56.3	13.0	19.2	3.9	1.0	54.3	58.0

DIFF = Percent correct
 Because of missing gender information, some totals may appear inconsistent.

Science: Biology / Knowing (S032035 - S05_10)
 Label: Whether two people are related
 Type: MC Key: C

COUNTRY	Year	N	DIFF	A	B	C	D	OMIT TED	NOT REACH ED	1.GIRL %Right	2.BOY %Right
Armenia	2003	1287	29.2	67.2	1.5	29.2	2.1	0.0	0.0	27.5	31.0
	2007	673	39.7	50.6	2.3	39.7	1.6	1.7	4.0	40.0	39.4
Australia	2003	1178	72.9	23.9	1.1	72.9	2.1	0.0	0.0	70.6	75.2
	2007	579	70.5	23.7	1.4	70.5	2.6	1.1	0.7	66.3	74.5
Bahrain	2003	1018	30.2	56.3	4.1	30.2	9.4	0.0	0.0	28.7	31.7
	2007	595	36.2	48.0	3.2	36.2	9.6	1.5	1.6	39.7	32.9
Botswana	2003	1244	13.4	68.8	5.7	13.4	12.0	0.0	0.0	13.1	13.8
	2007	604	11.4	63.8	6.0	11.4	10.6	2.0	6.2	11.1	11.7
Bulgaria	2003	975	45.5	50.5	1.8	45.5	2.1	0.0	0.0	44.7	46.3
	2007	436	47.2	42.3	3.2	47.2	3.1	2.5	1.7	46.1	48.0
Chinese Taipei	2003	1341	85.0	14.1	0.2	85.0	0.8	0.0	0.0	85.5	84.5
	2007	577	86.2	12.3	0.4	86.2	0.9	0.2	0.0	86.1	86.3
Cyprus	2003	984	48.0	45.5	3.6	48.0	3.0	0.0	0.0	46.0	49.6
	2007	625	52.1	40.3	2.2	52.1	3.9	1.4	0.1	50.8	53.5
Egypt	2003	1756	47.5	26.3	8.8	47.5	17.5	0.0	0.0	48.2	46.8
	2007	937	44.3	31.6	9.3	44.3	13.4	0.9	0.5	48.3	40.5
England	2003	693	70.7	27.2	1.0	70.7	1.1	0.0	0.0	70.9	70.6
	2007	554	73.6	20.5	1.4	73.6	2.7	1.1	0.6	74.0	73.2
Ghana	2003	1197	14.9	61.8	14.6	14.9	8.7	0.0	0.0	17.8	12.5
	2007	763	14.7	60.2	12.6	14.7	6.4	1.9	4.1	15.4	14.2
Hong Kong SAR	2003	1229	87.4	10.4	0.6	87.4	1.6	0.0	0.0	87.1	87.8
	2007	494	81.3	14.4	0.9	81.3	2.1	0.5	0.7	79.7	83.1
Hungary	2003	814	75.5	22.6	0.1	75.5	1.8	0.0	0.0	73.5	77.6
	2007	578	73.3	23.4	0.8	73.3	1.4	0.8	0.3	68.5	77.9
Indonesia	2003	1414	16.0	68.1	1.6	16.0	14.2	0.0	0.0	13.5	18.6
	2007	599	11.0	74.2	1.8	11.0	11.0	0.6	1.3	13.5	8.4
Iran, Islamic Rep. of	2003	1216	58.2	36.7	1.4	58.2	3.7	0.0	0.0	61.1	56.3
	2007	566	48.4	42.5	1.5	48.4	4.9	0.9	1.6	51.0	46.4
Israel	2003	1062	47.7	48.6	1.8	47.7	1.9	0.0	0.0	39.1	56.3
	2007	476	46.0	43.2	3.2	46.0	4.2	2.6	0.7	43.9	48.4
Italy	2003	1035	54.5	43.5	0.2	54.5	1.8	0.0	0.0	53.3	55.8
	2007	628	56.2	37.8	1.2	56.2	2.5	1.0	1.3	58.8	53.7
Japan	2003	1214	81.1	16.8	1.0	81.1	1.1	0.0	0.0	79.8	82.4
	2007	618	83.7	13.5	1.3	83.7	0.8	0.6	0.2	81.1	86.2
Jordan	2003	1096	43.0	46.2	3.9	43.0	6.8	0.0	0.0	44.0	42.1
	2007	751	56.8	33.2	3.3	56.8	5.1	1.3	0.3	56.4	57.2
Korea, Rep. of	2003	1324	85.6	13.0	0.6	85.6	0.7	0.0	0.0	86.3	85.0
	2007	604	90.5	7.7	0.7	90.5	0.8	0.0	0.3	92.8	88.3
Lebanon	2003	879	26.7	58.1	5.7	26.7	9.5	0.0	0.0	26.2	27.2
	2007	534	34.0	43.6	4.0	34.0	13.7	2.4	2.3	30.5	37.9

DIFF = Percent correct
 Because of missing gender information, some totals may appear inconsistent.

Science: Biology / Knowing (S032035 - S05_10)
 Label: Whether two people are related
 Type: MC Key: C

COUNTRY	Year	N	DIFF	A	B	C	D	OMIT TED	NOT REACH ED	1.GIRL %Right	2.BOY %Right
Lithuania	2003	1141	38.1	60.9	0.2	38.1	0.8	0.0	0.0	35.4	40.7
	2007	558	45.6	51.7	0.3	45.6	1.8	0.5	0.1	41.6	49.7
Malaysia	2003	1325	20.9	74.0	0.5	20.9	4.6	0.0	0.0	17.7	24.0
	2007	631	23.7	66.4	2.1	23.7	5.5	0.8	1.5	18.9	29.7
Norway	2003	992	57.5	40.6	0.8	57.5	1.1	0.0	0.0	52.0	62.7
	2007	657	57.7	35.5	0.8	57.7	3.1	1.9	1.1	51.8	63.4
Palestinian Nat'l Auth.	2003	1319	24.2	61.9	5.6	24.2	8.4	0.0	0.0	20.5	28.6
	2007	622	24.6	54.1	9.0	24.6	11.6	0.3	0.4	24.1	25.1
Romania	2003	1001	31.4	62.1	1.5	31.4	5.0	0.0	0.0	27.3	36.2
	2007	589	29.9	58.9	1.3	29.9	6.7	1.1	2.1	27.7	32.4
Russian Federation	2003	1154	64.4	33.5	0.8	64.4	1.3	0.0	0.0	61.7	67.0
	2007	641	68.2	26.1	0.7	68.2	2.0	2.3	0.8	64.8	71.5
Scotland	2003	857	60.7	36.4	1.1	60.7	1.7	0.0	0.0	55.0	66.5
	2007	573	61.0	32.6	0.3	61.0	3.4	2.2	0.4	60.3	61.8
Serbia	2003	1054	29.9	68.6	0.8	29.9	0.8	0.0	0.0	24.4	35.5
	2007	565	29.8	66.7	0.4	29.8	2.2	0.3	0.6	30.0	29.6
Singapore	2003	1514	70.5	25.7	0.4	70.5	3.4	0.0	0.0	67.3	73.5
	2007	662	65.3	29.9	1.4	65.3	3.1	0.2	0.1	66.0	64.7
Slovenia	2003	857	49.7	45.5	0.1	49.7	4.7	0.0	0.0	45.6	53.6
	2007	570	48.1	45.0	1.6	48.1	3.9	1.4	0.0	45.8	50.7
Sweden	2003	1036	58.7	39.6	0.5	58.7	1.2	0.0	0.0	56.0	61.3
	2007	759	61.9	32.1	0.2	61.9	4.4	1.3	0.1	58.1	65.2
Tunisia	2003	1155	8.8	85.5	1.1	8.8	4.6	0.0	0.0	8.0	9.6
	2007	581	17.3	71.6	1.0	17.3	5.9	2.3	2.1	13.5	21.3
United States	2003	2202	72.1	24.6	1.3	72.1	2.0	0.0	0.0	69.0	75.3
	2007	1052	67.0	26.5	1.4	67.0	3.0	1.1	1.1	68.5	65.4
International Avg.	2003	1169	49.1	44.4	2.2	49.1	4.3	0.0	0.0	47.2	51.1
	2007	626	50.2	40.1	2.5	50.2	4.8	1.2	1.2	49.2	51.3
Basque Country, Spain	2003	623	51.7	41.7	1.4	51.7	5.3	0.0	0.0	45.5	57.8
	2007	317	46.3	46.8	1.3	46.3	4.3	0.7	0.6	41.8	50.8
Ontario, Canada	2003	1039	67.2	29.0	0.1	67.2	3.7	0.0	0.0	64.9	69.7
	2007	501	55.6	36.7	0.6	55.6	4.1	1.8	1.2	51.4	59.2
Quebec, Canada	2003	1102	70.8	26.0	0.2	70.8	2.9	0.0	0.0	68.4	73.3
	2007	570	69.1	22.3	0.0	69.1	5.7	1.6	1.3	65.5	72.2

DIFF = Percent correct
 Because of missing gender information, some totals may appear inconsistent.

Science: Earth Science / Knowing (S032519 - S05_11)
 Label: Effect of dam on wildlife
 Type: CR Key: -

COUNTRY	Year	N	10	11	19	70	71	79	OMIT TED	NOT REACH ED	V1	1.GIRL %Right	2.BOY %Right
Armenia	2003	351	26.4	11.9	20.9	9.5	2.1	29.2	0.0	0.0	59.2	59.9	58.5
	2007	675	9.4	3.6	10.5	5.0	3.0	12.6	51.3	4.5	23.5	24.0	23.0
Australia	2003	1091	60.3	4.3	0.6	10.8	11.7	12.3	0.0	0.0	65.2	64.6	65.8
	2007	579	56.5	4.1	0.7	8.2	9.1	13.6	7.2	0.7	61.2	56.0	66.1
Bahrain	2003	790	25.7	1.6	5.9	31.8	1.7	33.4	0.0	0.0	33.1	31.6	34.9
	2007	595	24.3	12.2	2.1	14.5	2.6	19.4	23.1	1.9	38.5	45.6	31.9
Botswana	2003	1021	6.6	22.7	2.1	8.6	6.8	53.3	0.0	0.0	31.4	35.9	26.6
	2007	603	3.5	15.5	0.3	8.6	4.1	46.9	14.0	7.1	19.3	23.2	14.8
Bulgaria	2003	574	23.6	25.7	3.6	10.9	1.7	34.5	0.0	0.0	52.8	54.6	51.2
	2007	436	11.5	12.6	1.7	6.7	2.6	12.9	50.3	1.8	25.7	26.7	24.9
Chinese Taipei	2003	1179	64.0	5.0	0.8	16.1	1.1	13.0	0.0	0.0	69.8	69.6	69.9
	2007	577	59.3	0.7	1.1	14.3	0.2	14.9	9.5	0.0	61.1	67.3	55.4
Cyprus	2003	599	19.0	2.5	1.1	28.2	23.6	25.7	0.0	0.0	22.6	19.5	25.3
	2007	625	35.6	4.9	0.4	5.0	5.0	10.0	38.7	0.3	40.9	42.2	39.5
Egypt	2003	1510	10.5	20.0	8.0	13.2	2.7	45.6	0.0	0.0	38.5	40.9	36.2
	2007	941	9.2	32.5	0.2	8.7	3.2	29.2	16.4	0.6	41.9	45.9	38.2
England	2003	632	67.1	0.9	0.0	7.9	7.9	16.1	0.0	0.0	68.1	68.8	67.4
	2007	554	47.9	1.6	0.1	7.6	24.8	9.8	7.7	0.6	49.5	52.0	46.9
Ghana	2003	617	10.9	2.3	0.7	7.1	5.1	74.0	0.0	0.0	13.9	10.4	16.6
	2007	763	10.8	1.8	0.0	10.7	3.9	31.2	36.7	4.9	12.5	11.0	13.8
Hong Kong SAR	2003	1112	75.7	1.3	1.0	8.1	3.0	10.9	0.0	0.0	78.0	77.8	78.2
	2007	494	58.2	0.9	0.4	8.2	4.1	16.9	10.6	0.7	59.5	63.0	55.8
Hungary	2003	616	62.5	4.2	0.0	8.1	5.1	20.1	0.0	0.0	66.7	60.1	73.1
	2007	578	46.3	4.7	0.9	10.7	2.9	14.5	19.6	0.4	51.8	49.3	54.2
Indonesia	2003	942	39.4	7.8	2.0	0.7	6.8	43.3	0.0	0.0	49.2	52.0	46.3
	2007	599	23.3	7.7	1.8	3.5	1.1	40.0	20.9	1.7	32.8	32.0	33.7
Iran, Islamic Rep. of	2003	920	28.8	16.7	14.5	13.7	1.2	25.2	0.0	0.0	60.0	60.6	59.7
	2007	566	21.2	14.9	9.0	10.5	0.9	20.8	20.9	1.8	45.1	43.3	46.6
Israel	2003	812	53.6	4.6	2.1	10.0	4.9	24.8	0.0	0.0	60.3	56.8	63.5
	2007	476	30.5	3.2	2.0	9.2	1.8	20.5	31.6	1.3	35.7	36.0	35.3
Italy	2003	740	46.7	5.9	2.2	15.9	3.4	25.9	0.0	0.0	54.8	54.2	55.5
	2007	632	24.8	2.4	0.1	17.9	4.4	14.6	34.5	1.4	27.3	26.9	27.7
Japan	2003	1063	52.1	1.0	3.6	10.2	11.5	21.6	0.0	0.0	56.6	54.4	58.9
	2007	618	52.2	1.7	0.4	5.0	11.4	17.3	11.8	0.2	54.3	55.1	53.6
Jordan	2003	913	39.0	12.1	6.1	10.5	2.2	30.2	0.0	0.0	57.1	59.8	54.5
	2007	751	14.4	11.2	0.2	24.2	3.6	35.0	10.9	0.5	25.8	28.8	23.1
Korea, Rep. of	2003	1252	41.1	0.8	3.3	14.3	0.1	40.5	0.0	0.0	45.2	46.4	44.1
	2007	604	56.7	1.7	3.8	9.7	0.2	22.2	5.4	0.3	62.2	64.4	60.2
Lebanon	2003	300	25.6	4.4	0.5	20.2	8.2	41.2	0.0	0.0	30.4	31.7	28.6
	2007	540	12.9	2.6	1.4	6.8	2.2	19.5	52.2	2.5	16.8	14.5	19.5

V1 = Percent scoring 1 or better V2 = Percent scoring 2 or better
 Percent right for boys and girls corresponds to the percent obtaining the maximum score on the item.
 Because of missing gender information, some totals may appear inconsistent.

Science: Earth Science / Knowing (S032519 - S05_11)
 Label: Effect of dam on wildlife
 Type: CR Key: -

COUNTRY	Year	N	10	11	19	70	71	79	OMIT TED	NOT REACH ED	V1	1.GIRL %Right	2.BOY %Right
Lithuania	2003	842	44.1	3.9	2.0	14.3	3.4	32.3	0.0	0.0	50.0	47.6	52.3
	2007	567	29.2	3.0	0.0	3.1	0.4	45.0	19.3	0.1	32.2	27.2	37.3
Malaysia	2003	1222	68.5	2.2	1.8	16.6	1.2	9.8	0.0	0.0	72.4	75.0	69.9
	2007	630	43.7	1.3	1.8	22.5	1.3	13.8	13.9	1.9	46.7	47.7	45.5
Norway	2003	815	53.1	2.3	0.6	16.3	5.5	22.2	0.0	0.0	56.0	58.2	54.0
	2007	657	33.1	1.6	0.0	14.0	1.7	23.7	24.7	1.2	34.7	35.4	34.0
Palestinian Nat'l Auth.	2003	1052	24.4	9.5	6.9	13.3	4.6	41.3	0.0	0.0	40.7	43.2	37.8
	2007	622	19.6	5.2	3.5	11.6	4.6	39.3	15.3	0.4	28.3	30.6	25.9
Romania	2003	607	35.3	7.7	3.8	20.7	7.4	25.0	0.0	0.0	46.8	42.4	52.1
	2007	592	24.9	1.8	1.6	14.2	1.9	20.8	32.6	2.1	28.3	29.1	27.4
Russian Federation	2003	784	46.0	3.6	1.6	18.0	13.4	17.4	0.0	0.0	51.2	51.0	51.4
	2007	641	25.7	4.1	4.2	6.0	6.8	25.0	26.7	1.4	34.0	32.6	35.5
Scotland	2003	770	56.0	1.1	0.0	13.4	11.9	17.7	0.0	0.0	57.1	54.7	59.5
	2007	573	36.0	2.1	0.2	12.2	26.1	13.3	9.7	0.4	38.3	39.0	37.6
Serbia	2003	564	34.4	6.1	9.8	5.1	1.5	43.1	0.0	0.0	50.3	49.8	50.8
	2007	573	18.9	4.9	0.4	6.2	0.7	16.8	51.5	0.6	24.2	23.3	25.1
Singapore	2003	1388	55.2	6.3	1.4	11.3	9.2	16.7	0.0	0.0	62.8	63.8	61.8
	2007	662	52.1	2.1	0.5	7.5	3.5	26.5	7.7	0.1	54.7	56.4	53.0
Slovenia	2003	702	26.0	14.8	3.5	10.9	6.1	38.7	0.0	0.0	44.3	44.9	43.6
	2007	570	41.6	9.4	0.2	7.3	0.8	27.2	13.5	0.0	51.2	54.1	47.8
Sweden	2003	810	38.6	4.9	0.7	10.6	4.8	40.4	0.0	0.0	44.2	42.6	45.7
	2007	759	28.8	2.7	1.3	8.2	2.6	25.5	30.5	0.3	32.8	33.2	32.4
Tunisia	2003	846	38.5	13.5	2.9	14.1	1.2	29.8	0.0	0.0	54.9	51.0	58.9
	2007	581	16.3	7.1	0.5	22.5	3.1	29.1	19.2	2.2	23.9	22.9	25.0
United States	2003	2096	64.3	4.2	2.0	9.7	8.0	11.7	0.0	0.0	70.6	69.8	71.4
	2007	1052	62.5	3.0	0.0	5.4	12.1	11.1	4.8	1.1	65.5	70.3	60.1
International Avg.	2003	895	41.3	7.1	3.5	13.0	5.7	29.3	0.0	0.0	51.9	51.6	52.2
	2007	627	31.5	5.7	1.5	10.2	4.8	22.4	22.5	1.4	38.8	39.7	37.9
Basque Country, Spain	2003	460	43.6	7.5	1.6	20.0	7.8	19.6	0.0	0.0	52.7	49.6	55.7
	2007	317	17.9	2.7	6.6	23.4	3.4	17.7	27.7	0.6	27.2	25.5	28.9
Ontario, Canada	2003	920	73.1	1.8	1.0	8.3	8.0	7.7	0.0	0.0	76.0	75.1	77.0
	2007	501	69.2	0.3	2.6	6.8	4.0	7.0	8.8	1.2	72.2	72.6	71.8
Quebec, Canada	2003	983	62.1	2.9	1.6	13.8	3.0	16.6	0.0	0.0	66.6	66.7	66.6
	2007	570	46.1	1.4	0.5	14.2	5.3	16.8	13.8	1.9	48.0	47.1	48.7

V1 = Percent scoring 1 or better V2 = Percent scoring 2 or better
 Percent right for boys and girls corresponds to the percent obtaining the maximum score on the item.
 Because of missing gender information, some totals may appear inconsistent.

Science: Chemistry / Applying (S032683 - S05_12)
 Label: Materials sorted into two groups
 Type: MC Key: D

COUNTRY	Year	N	DIFF	A	B	C	D	OMIT TED	NOT REACH ED	1.GIRL %Right	2.BOY %Right
Armenia	2003	1107	38.6	13.0	11.3	37.1	38.6	0.0	0.0	38.4	38.8
	2007	664	28.7	8.8	12.5	31.0	28.7	12.8	6.2	31.4	26.2
Australia	2003	1170	50.5	11.9	18.1	19.5	50.5	0.0	0.0	49.8	51.1
	2007	578	39.5	15.6	19.3	22.9	39.5	1.2	1.6	38.9	40.1
Bahrain	2003	939	29.7	14.3	23.3	32.7	29.7	0.0	0.0	35.7	23.6
	2007	595	36.0	8.7	18.4	33.1	36.0	1.8	1.9	38.8	33.3
Botswana	2003	1217	33.4	13.0	20.8	32.7	33.4	0.0	0.0	32.0	34.9
	2007	604	32.9	14.6	19.9	22.3	32.9	2.1	8.2	31.6	34.3
Bulgaria	2003	936	56.0	8.4	15.5	20.1	56.0	0.0	0.0	56.5	55.5
	2007	436	38.9	9.1	13.1	27.0	38.9	9.4	2.4	37.5	40.0
Chinese Taipei	2003	1341	58.0	5.8	10.2	26.0	58.0	0.0	0.0	62.5	54.2
	2007	577	57.3	5.3	10.0	27.1	57.3	0.4	0.0	58.6	56.1
Cyprus	2003	964	29.5	10.2	27.2	33.2	29.5	0.0	0.0	34.4	25.4
	2007	625	33.8	8.6	21.0	34.4	33.8	1.8	0.3	34.9	32.8
Egypt	2003	1718	30.2	16.3	16.7	36.8	30.2	0.0	0.0	30.8	29.6
	2007	934	28.6	12.4	20.8	34.4	28.6	3.1	0.7	28.3	28.8
England	2003	683	56.5	6.6	13.5	23.5	56.5	0.0	0.0	61.9	51.1
	2007	554	58.5	8.6	10.4	20.4	58.5	1.4	0.6	63.2	53.7
Ghana	2003	1162	27.1	20.7	19.3	32.9	27.1	0.0	0.0	27.1	27.1
	2007	762	27.1	17.2	14.9	32.6	27.1	2.5	5.7	25.4	28.5
Hong Kong SAR	2003	1220	51.9	6.2	10.4	31.5	51.9	0.0	0.0	57.1	46.9
	2007	494	43.5	8.5	16.5	30.4	43.5	0.2	1.0	44.6	42.4
Hungary	2003	803	69.1	3.1	9.6	18.2	69.1	0.0	0.0	69.2	69.0
	2007	578	58.4	4.8	12.9	21.5	58.4	1.7	0.7	57.3	59.5
Indonesia	2003	1374	40.1	22.1	15.6	22.2	40.1	0.0	0.0	42.9	37.3
	2007	599	30.0	26.5	17.0	22.3	30.0	1.3	2.9	30.3	29.6
Iran, Islamic Rep. of	2003	1177	41.5	5.6	17.4	35.5	41.5	0.0	0.0	47.2	37.6
	2007	566	41.7	6.7	15.1	31.5	41.7	2.7	2.3	50.7	34.5
Israel	2003	1044	56.5	5.2	18.8	19.5	56.5	0.0	0.0	63.4	49.8
	2007	476	51.9	6.3	14.9	23.7	51.9	1.9	1.3	58.0	45.0
Italy	2003	970	45.7	8.7	16.8	28.7	45.7	0.0	0.0	43.8	47.7
	2007	631	36.0	9.0	19.8	30.3	36.0	3.2	1.8	35.1	36.8
Japan	2003	1208	58.2	7.0	12.6	22.1	58.2	0.0	0.0	60.8	55.8
	2007	618	65.8	5.2	8.5	19.7	65.8	0.6	0.2	70.2	61.6
Jordan	2003	1067	38.8	7.3	15.6	38.3	38.8	0.0	0.0	44.1	33.8
	2007	751	49.2	5.7	13.1	30.5	49.2	1.0	0.5	54.7	44.3
Korea, Rep. of	2003	1319	50.0	5.0	8.0	37.0	50.0	0.0	0.0	55.8	44.5
	2007	604	49.7	6.2	10.1	33.3	49.7	0.3	0.3	55.9	44.1
Lebanon	2003	849	25.8	10.9	15.4	47.8	25.8	0.0	0.0	25.6	26.2
	2007	536	27.8	15.5	15.5	35.0	27.8	2.6	3.8	30.0	25.4

DIFF = Percent correct
 Because of missing gender information, some totals may appear inconsistent.

Science: Chemistry / Applying (S032683 - S05_12)
 Label: Materials sorted into two groups
 Type: MC Key: D

COUNTRY	Year	N	DIFF	A	B	C	D	OMIT TED	NOT REACH ED	1.GIRL %Right	2.BOY %Right
Lithuania	2003	1122	46.6	2.8	13.9	36.7	46.6	0.0	0.0	46.5	46.8
	2007	566	43.9	4.0	15.9	34.9	43.9	1.2	0.1	48.5	39.1
Malaysia	2003	1312	42.7	10.8	24.2	22.2	42.7	0.0	0.0	43.6	41.9
	2007	631	31.3	13.3	24.2	28.1	31.3	1.1	2.0	34.4	27.5
Norway	2003	963	42.0	13.2	15.0	29.7	42.0	0.0	0.0	41.2	42.7
	2007	657	40.5	13.7	13.9	26.1	40.5	4.2	1.6	40.3	40.7
Palestinian Nat'l Auth.	2003	1289	30.9	9.1	16.7	43.3	30.9	0.0	0.0	30.7	31.1
	2007	624	31.2	10.2	19.0	38.1	31.2	1.0	0.4	34.5	27.8
Romania	2003	945	39.4	15.3	14.0	31.3	39.4	0.0	0.0	39.8	38.9
	2007	592	29.7	10.1	14.4	39.4	29.7	4.2	2.2	31.7	27.5
Russian Federation	2003	1129	52.5	6.7	10.9	29.9	52.5	0.0	0.0	50.4	54.6
	2007	641	48.6	3.6	9.5	31.8	48.6	3.8	2.7	47.2	50.1
Scotland	2003	841	52.7	14.7	17.5	15.0	52.7	0.0	0.0	52.6	52.8
	2007	573	49.1	12.6	18.0	16.5	49.1	3.3	0.4	52.8	45.3
Serbia	2003	972	37.3	7.6	17.0	38.2	37.3	0.0	0.0	37.5	37.0
	2007	557	36.3	8.6	12.9	35.2	36.3	6.4	0.7	40.8	31.9
Singapore	2003	1509	71.2	4.8	8.3	15.6	71.2	0.0	0.0	74.1	68.6
	2007	662	66.7	5.8	7.6	19.2	66.7	0.6	0.1	70.1	63.1
Slovenia	2003	847	59.5	7.7	12.8	19.9	59.5	0.0	0.0	59.2	59.8
	2007	570	65.4	7.5	12.1	13.0	65.4	1.3	0.7	63.9	67.1
Sweden	2003	1004	62.0	4.8	11.3	21.9	62.0	0.0	0.0	64.5	59.5
	2007	759	51.7	6.1	11.7	24.6	51.7	5.0	0.9	51.3	52.1
Tunisia	2003	1070	49.3	3.6	7.6	39.5	49.3	0.0	0.0	49.0	49.7
	2007	581	45.9	2.9	10.3	35.9	45.9	2.7	2.2	42.2	50.0
United States	2003	2190	36.4	14.0	19.7	29.9	36.4	0.0	0.0	34.9	38.0
	2007	1052	34.9	14.5	18.7	29.2	34.9	1.4	1.3	34.3	35.6
International Avg.	2003	1135	45.8	9.6	15.3	29.4	45.8	0.0	0.0	47.4	44.3
	2007	626	42.7	9.6	14.9	28.3	42.7	2.7	1.8	44.5	41.1
Basque Country, Spain	2003	608	44.1	13.0	17.0	26.0	44.1	0.0	0.0	43.0	45.1
	2007	317	45.7	12.1	22.5	18.7	45.7	0.4	0.6	41.6	50.0
Ontario, Canada	2003	1027	36.3	18.7	22.3	22.8	36.3	0.0	0.0	33.7	39.0
	2007	501	31.5	15.3	22.7	27.0	31.5	1.8	1.7	33.8	29.6
Quebec, Canada	2003	1091	42.1	14.4	18.2	25.3	42.1	0.0	0.0	43.8	40.3
	2007	570	30.3	11.9	17.6	34.9	30.3	2.9	2.5	29.6	30.9

DIFF = Percent correct
 Because of missing gender information, some totals may appear inconsistent.

Science: Biology / Knowing (S032258 - S05_13)
 Label: Gall bladder stores bile
 Type: MC Key: C

COUNTRY	Year	N	DIFF	A	B	C	D	OMIT TED	NOT REACH ED	1.GIRL %Right	2.BOY %Right
Armenia	2003	1231	63.3	6.4	19.2	63.3	11.1	0.0	0.0	65.4	61.1
	2007	672	58.7	3.2	19.9	58.7	8.2	3.6	6.4	61.9	55.6
Australia	2003	1172	78.6	4.2	14.2	78.6	3.1	0.0	0.0	79.8	77.4
	2007	579	68.9	5.5	19.8	68.9	2.6	1.4	1.7	67.0	70.8
Bahrain	2003	1005	51.4	9.7	31.3	51.4	7.6	0.0	0.0	59.4	43.2
	2007	595	51.5	12.7	21.8	51.5	11.4	0.7	1.9	60.9	42.7
Botswana	2003	1218	29.2	22.3	22.5	29.2	26.0	0.0	0.0	28.7	29.7
	2007	604	24.5	19.0	20.4	24.5	25.6	1.4	9.2	26.2	22.5
Bulgaria	2003	945	43.8	4.6	46.1	43.8	5.5	0.0	0.0	46.0	41.8
	2007	436	40.1	6.1	44.6	40.1	3.9	2.9	2.4	37.3	42.2
Chinese Taipei	2003	1343	75.5	3.5	17.3	75.5	3.7	0.0	0.0	76.7	74.5
	2007	577	82.5	2.8	12.5	82.5	2.2	0.0	0.0	83.9	81.2
Cyprus	2003	974	61.4	8.3	24.9	61.4	5.4	0.0	0.0	64.0	59.3
	2007	625	55.3	8.4	27.0	55.3	8.2	0.5	0.7	59.2	51.1
Egypt	2003	1739	31.6	18.2	33.1	31.6	17.0	0.0	0.0	33.3	30.1
	2007	935	34.8	12.3	34.6	34.8	16.5	1.0	0.7	36.7	33.1
England	2003	685	74.8	8.7	12.3	74.8	4.2	0.0	0.0	77.4	72.3
	2007	554	77.2	7.7	11.0	77.2	2.7	0.9	0.6	77.8	76.6
Ghana	2003	1164	33.4	24.8	17.5	33.4	24.2	0.0	0.0	29.5	36.6
	2007	762	30.8	16.7	20.3	30.8	23.9	2.5	5.8	30.5	31.0
Hong Kong SAR	2003	1225	81.4	3.7	13.7	81.4	1.2	0.0	0.0	82.6	80.2
	2007	494	79.6	2.6	14.5	79.6	2.3	0.0	1.0	80.4	78.6
Hungary	2003	807	73.5	3.8	18.9	73.5	3.8	0.0	0.0	76.0	70.8
	2007	578	74.3	5.4	13.3	74.3	4.7	1.5	0.7	73.5	75.1
Indonesia	2003	1399	44.5	5.2	45.7	44.5	4.6	0.0	0.0	48.0	40.8
	2007	599	43.0	5.2	39.2	43.0	9.0	0.5	3.2	39.6	46.5
Iran, Islamic Rep. of	2003	1204	35.1	5.4	50.7	35.1	8.8	0.0	0.0	35.6	34.8
	2007	566	31.1	7.3	49.0	31.1	8.0	1.7	2.9	34.3	28.5
Israel	2003	1038	51.5	7.0	38.4	51.5	3.1	0.0	0.0	50.1	52.9
	2007	476	43.5	8.3	38.4	43.5	5.0	3.2	1.5	43.5	43.5
Italy	2003	1009	76.1	4.6	13.4	76.1	5.9	0.0	0.0	79.4	72.6
	2007	632	71.6	5.8	13.1	71.6	6.8	0.8	1.8	74.5	68.9
Japan	2003	1213	77.1	6.6	12.4	77.1	3.9	0.0	0.0	76.6	77.7
	2007	618	77.0	5.0	14.5	77.0	2.5	0.8	0.2	76.7	77.3
Jordan	2003	1075	58.1	7.5	27.6	58.1	6.8	0.0	0.0	63.5	53.1
	2007	751	60.4	7.8	22.8	60.4	7.7	0.8	0.6	67.0	54.6
Korea, Rep. of	2003	1321	85.3	4.0	8.8	85.3	1.9	0.0	0.0	84.8	85.7
	2007	604	86.6	2.7	8.7	86.6	1.7	0.0	0.3	88.3	85.0
Lebanon	2003	811	27.4	23.6	28.6	27.4	20.5	0.0	0.0	25.7	29.5
	2007	530	30.6	19.3	26.2	30.6	17.7	2.5	3.8	28.5	32.9

DIFF = Percent correct
 Because of missing gender information, some totals may appear inconsistent.

Science: Biology / Knowing (S032258 - S05_13)
 Label: Gall bladder stores bile
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COUNTRY	Year	N	DIFF	A	B	C	D	OMIT TED	NOT REACH ED	1.GIRL %Right	2.BOY %Right
Lithuania	2003	1130	73.7	2.9	22.0	73.7	1.3	0.0	0.0	79.5	67.9
	2007	564	71.7	6.3	19.6	71.7	2.0	0.4	0.1	75.3	68.0
Malaysia	2003	1322	78.1	4.7	12.7	78.1	4.5	0.0	0.0	82.7	73.6
	2007	631	73.9	6.6	11.4	73.9	5.5	0.2	2.4	76.9	70.2
Norway	2003	991	68.4	5.4	21.7	68.4	4.5	0.0	0.0	70.7	66.2
	2007	657	70.7	5.0	17.3	70.7	3.8	1.3	1.9	70.3	71.0
Palestinian Nat'l Auth.	2003	1303	46.5	13.1	29.6	46.5	10.7	0.0	0.0	50.9	41.4
	2007	624	43.3	13.6	31.1	43.3	10.5	1.0	0.4	43.8	42.8
Romania	2003	981	60.4	9.4	23.0	60.4	7.2	0.0	0.0	62.3	58.3
	2007	592	64.8	11.8	14.5	64.8	5.0	1.8	2.2	70.0	59.1
Russian Federation	2003	1123	77.1	6.5	13.4	77.1	3.0	0.0	0.0	82.1	72.1
	2007	641	78.5	5.0	8.2	78.5	2.1	3.3	2.8	79.8	77.3
Scotland	2003	855	72.8	6.7	17.0	72.8	3.5	0.0	0.0	75.6	69.9
	2007	573	71.8	6.5	16.9	71.8	2.4	1.7	0.7	75.1	68.3
Serbia	2003	1041	72.9	3.8	20.1	72.9	3.2	0.0	0.0	74.7	70.9
	2007	564	71.0	4.7	20.2	71.0	2.9	0.4	0.8	71.3	70.6
Singapore	2003	1512	78.9	4.2	14.3	78.9	2.6	0.0	0.0	77.2	80.5
	2007	662	78.7	4.6	13.2	78.7	3.1	0.2	0.4	81.5	75.7
Slovenia	2003	850	74.8	2.9	20.2	74.8	2.2	0.0	0.0	77.9	71.8
	2007	570	78.2	4.4	14.1	78.2	1.4	1.2	0.7	80.6	75.6
Sweden	2003	1032	69.4	6.8	17.8	69.4	6.0	0.0	0.0	71.8	67.0
	2007	759	70.8	4.3	19.2	70.8	3.7	0.5	1.4	72.2	69.5
Tunisia	2003	1069	56.9	9.5	25.7	56.9	7.8	0.0	0.0	58.1	55.8
	2007	581	50.9	8.8	24.0	50.9	9.9	3.9	2.5	50.6	51.3
United States	2003	2188	75.9	7.3	14.2	75.9	2.6	0.0	0.0	75.9	75.9
	2007	1052	69.6	6.7	17.2	69.6	3.5	1.5	1.5	71.4	67.6
International Avg.	2003	1151	62.4	8.0	22.7	62.4	6.9	0.0	0.0	64.3	60.5
	2007	626	61.1	7.6	21.2	61.1	6.9	1.3	1.9	62.6	59.5
Basque Country, Spain	2003	613	77.8	5.6	12.0	77.8	4.6	0.0	0.0	80.7	75.0
	2007	317	74.9	6.2	13.2	74.9	3.7	1.4	0.6	75.5	74.3
Ontario, Canada	2003	1035	75.6	6.0	14.9	75.6	3.5	0.0	0.0	74.0	77.4
	2007	501	76.6	4.6	14.7	76.6	2.0	0.4	1.7	77.1	76.0
Quebec, Canada	2003	1099	83.1	4.2	9.1	83.1	3.6	0.0	0.0	83.6	82.6
	2007	570	79.3	3.6	9.4	79.3	3.0	2.1	2.5	83.5	75.6

DIFF = Percent correct
 Because of missing gender information, some totals may appear inconsistent.

Science: Earth Science / Applying (S032120A - S05_14A)

Label: Oil spills

Type: CR Key: -

COUNTRY	Year	N	10	11	19	70	79	OMIT TED	NOT REACH ED	V1	1.GIRL %Right	2.BOY %Right
Armenia	2003	235	18.1	4.7	12.5	20.1	44.6	0.0	0.0	35.3	39.2	30.8
	2007	674	12.4	4.4	8.0	2.9	9.3	56.2	6.8	24.8	24.9	24.7
Australia	2003	932	30.4	12.6	3.2	37.1	16.6	0.0	0.0	46.3	45.6	47.0
	2007	579	18.0	10.4	0.0	29.0	22.2	18.5	1.9	28.4	22.5	33.9
Bahrain	2003	728	15.7	10.9	8.6	6.6	58.2	0.0	0.0	35.2	38.6	30.7
	2007	595	18.1	8.5	5.0	11.5	31.1	23.6	2.2	31.6	38.4	25.2
Botswana	2003	832	5.6	0.7	1.5	6.5	85.7	0.0	0.0	7.8	6.9	8.9
	2007	604	3.9	0.9	0.1	5.9	59.1	20.2	9.9	4.9	5.1	4.6
Bulgaria	2003	431	20.4	14.0	1.0	27.9	36.6	0.0	0.0	35.4	36.8	34.5
	2007	436	10.9	4.2	2.3	6.5	15.9	57.5	2.7	17.4	15.0	19.2
Chinese Taipei	2003	990	15.5	1.2	0.2	18.7	64.4	0.0	0.0	16.9	16.0	17.7
	2007	577	16.0	3.2	3.4	26.9	24.9	25.7	0.0	22.6	20.8	24.2
Cyprus	2003	474	17.4	7.7	1.3	31.8	41.8	0.0	0.0	26.5	22.9	29.4
	2007	625	13.0	3.8	1.2	12.4	21.8	46.8	0.9	18.0	21.8	14.1
Egypt	2003	1426	5.0	3.4	5.5	3.0	83.1	0.0	0.0	13.9	12.7	15.0
	2007	941	1.7	5.1	0.0	5.0	67.1	20.2	1.0	6.8	9.9	3.8
England	2003	542	20.0	16.9	0.3	31.2	31.6	0.0	0.0	37.2	33.5	41.0
	2007	554	20.0	6.6	0.0	33.1	19.9	19.5	0.9	26.6	22.4	31.0
Ghana	2003	291	2.2	1.4	0.0	2.3	94.1	0.0	0.0	3.6	2.0	4.7
	2007	762	1.4	0.4	0.0	2.7	29.1	59.4	6.9	1.9	1.3	2.4
Hong Kong SAR	2003	945	34.3	2.8	2.1	26.6	34.2	0.0	0.0	39.2	35.4	42.7
	2007	494	18.2	5.4	3.7	23.5	23.6	24.5	1.0	27.3	26.5	28.1
Hungary	2003	557	38.6	14.7	0.0	35.3	11.4	0.0	0.0	53.3	48.9	57.5
	2007	578	28.7	12.7	1.0	15.1	18.0	23.4	1.1	42.4	38.6	46.1
Indonesia	2003	640	12.9	0.9	1.7	9.6	75.0	0.0	0.0	15.4	14.2	16.6
	2007	599	4.9	0.7	0.9	2.9	55.7	31.3	3.5	6.6	5.1	8.2
Iran, Islamic Rep. of	2003	597	6.8	8.3	7.4	10.9	66.6	0.0	0.0	22.5	23.0	22.2
	2007	566	4.6	2.2	2.8	7.1	36.7	42.7	3.9	9.6	7.9	11.0
Israel	2003	633	27.5	18.2	4.4	15.0	34.8	0.0	0.0	50.2	50.5	49.9
	2007	476	13.3	12.2	1.5	9.6	18.4	42.2	2.7	27.1	29.6	24.2
Italy	2003	602	21.0	17.7	2.8	23.0	35.5	0.0	0.0	41.5	40.8	42.1
	2007	633	12.6	8.2	0.2	16.5	22.5	37.8	2.1	21.0	19.5	22.4
Japan	2003	861	16.7	5.1	0.3	42.3	35.5	0.0	0.0	22.2	20.0	24.4
	2007	618	8.0	3.3	1.3	17.9	47.6	21.8	0.2	12.6	9.9	15.2
Jordan	2003	853	20.0	9.8	12.1	2.8	55.4	0.0	0.0	41.9	45.2	38.5
	2007	751	9.9	6.1	0.0	6.2	58.9	17.9	1.0	16.0	16.1	15.9
Korea, Rep. of	2003	1164	28.8	0.5	0.1	33.1	37.6	0.0	0.0	29.4	27.4	31.2
	2007	604	27.9	0.2	0.0	38.0	24.5	9.0	0.3	28.1	30.0	26.3
Lebanon	2003	290	4.3	3.6	2.2	51.2	38.6	0.0	0.0	10.1	10.7	9.3
	2007	540	2.7	1.7	0.9	10.0	30.2	49.5	5.0	5.3	5.6	5.1

V1 = Percent scoring 1 or better V2 = Percent scoring 2 or better
 Percent right for boys and girls corresponds to the percent obtaining the maximum score on the item.
 Because of missing gender information, some totals may appear inconsistent.

Science: Earth Science / Applying (S032120A - S05_14A)
 Label: Oil spills
 Type: CR Key: -

COUNTRY	Year	N	10	11	19	70	79	OMIT TED	NOT REACH ED	V1	1.GIRL %Right	2.BOY %Right
Lithuania	2003	720	19.5	12.2	0.3	35.3	32.7	0.0	0.0	32.1	30.3	33.8
	2007	567	9.4	8.7	0.3	34.9	20.0	26.5	0.2	18.5	18.8	18.1
Malaysia	2003	959	22.3	6.8	1.6	23.0	46.3	0.0	0.0	30.7	27.8	33.2
	2007	630	11.8	3.4	3.5	12.2	40.2	26.6	2.4	18.7	18.1	19.4
Norway	2003	693	14.6	3.3	0.3	39.2	42.6	0.0	0.0	18.2	15.8	20.5
	2007	657	14.7	2.1	0.0	17.4	34.1	29.5	2.1	16.8	11.5	22.1
Palestinian Nat'l Auth.	2003	1018	26.5	8.3	2.5	11.3	51.4	0.0	0.0	37.4	43.4	29.9
	2007	624	11.3	6.6	3.5	11.4	46.9	19.7	0.6	21.5	24.3	18.5
Romania	2003	464	21.9	14.3	2.0	28.1	33.7	0.0	0.0	38.2	34.2	42.5
	2007	592	8.3	9.9	0.0	12.3	21.5	44.8	3.3	18.2	16.4	20.2
Russian Federation	2003	618	41.8	6.2	0.0	23.9	28.1	0.0	0.0	48.0	48.0	48.0
	2007	641	16.9	3.2	0.0	20.9	18.1	36.8	4.1	20.1	17.9	22.3
Scotland	2003	625	18.4	13.4	0.7	37.7	29.9	0.0	0.0	32.4	28.2	36.4
	2007	573	13.8	7.0	0.0	27.5	25.3	25.3	1.1	20.8	18.4	23.4
Serbia	2003	475	14.7	5.8	8.2	31.4	39.9	0.0	0.0	28.7	32.7	24.6
	2007	573	7.6	4.9	1.5	15.5	14.0	55.8	0.8	13.9	13.2	14.6
Singapore	2003	1322	28.3	12.5	0.5	42.2	16.5	0.0	0.0	41.3	36.3	46.0
	2007	662	20.8	9.9	0.9	35.2	23.9	8.9	0.4	31.5	31.1	32.0
Slovenia	2003	683	13.9	15.1	6.0	28.1	36.9	0.0	0.0	35.0	33.8	36.2
	2007	570	16.7	17.5	0.0	21.4	31.2	12.5	0.7	34.2	33.2	35.3
Sweden	2003	700	11.8	11.3	0.9	43.8	32.2	0.0	0.0	24.0	19.5	28.2
	2007	759	7.2	5.0	1.1	24.0	25.9	35.3	1.5	13.3	12.9	13.7
Tunisia	2003	663	6.1	3.0	4.5	5.4	80.9	0.0	0.0	13.6	9.6	17.8
	2007	581	5.7	4.4	0.7	12.5	52.3	21.0	3.5	10.7	10.8	10.6
United States	2003	1937	25.4	14.6	3.7	31.8	24.6	0.0	0.0	43.6	39.7	47.8
	2007	1052	19.2	8.5	0.0	32.3	28.3	9.9	1.8	27.7	22.7	33.3
International Avg.	2003	755	19.0	8.5	3.0	24.7	44.8	0.0	0.0	30.5	29.4	31.5
	2007	627	12.4	5.8	1.3	17.0	30.9	30.3	2.3	19.5	18.8	20.3
Basque Country, Spain	2003	407	17.6	12.4	2.0	42.3	25.6	0.0	0.0	32.1	28.9	35.4
	2007	317	7.5	4.0	9.1	25.7	15.2	37.3	1.1	20.6	17.3	24.0
Ontario, Canada	2003	775	31.9	16.5	0.6	29.4	21.7	0.0	0.0	49.0	45.9	52.2
	2007	501	22.1	10.1	1.4	26.4	22.1	16.1	1.7	33.7	34.1	33.3
Quebec, Canada	2003	880	21.2	17.5	1.3	24.2	35.8	0.0	0.0	39.9	36.2	43.5
	2007	570	17.4	8.3	0.2	21.6	28.4	21.6	2.5	25.9	20.0	31.1

V1 = Percent scoring 1 or better V2 = Percent scoring 2 or better
 Percent right for boys and girls corresponds to the percent obtaining the maximum score on the item.
 Because of missing gender information, some totals may appear inconsistent.

Science: Earth Science / Applying (S032120B - S05_14B)

Label: Global warming

Type: CR Key: -

COUNTRY	Year	N	10	11	12	19	70	71	72	79	OMIT TED	NOT REACH ED	V1	1.GIRL %Right	2.BOY %Right
Armenia	2003	211	15.7	5.8	0.0	7.7	7.2	27.6	0.6	35.3	0.0	0.0	29.2	32.6	25.2
	2007	674	5.2	4.5	5.4	8.7	3.1	1.2	0.0	6.9	32.8	32.2	23.7	24.5	23.0
Australia	2003	903	14.3	4.8	0.0	1.2	21.2	17.0	10.6	30.9	0.0	0.0	20.2	14.0	26.4
	2007	579	16.1	1.9	8.6	0.3	17.4	8.9	0.0	24.7	15.3	6.7	27.0	21.3	32.4
Bahrain	2003	631	3.4	4.4	0.0	4.5	12.0	24.8	4.6	46.3	0.0	0.0	12.3	12.3	12.4
	2007	595	4.4	2.1	22.0	1.3	6.0	3.7	0.0	26.6	19.2	14.7	29.8	36.1	23.9
Botswana	2003	703	0.0	0.1	0.0	1.9	4.2	3.5	2.0	88.3	0.0	0.0	2.0	1.1	2.9
	2007	604	0.2	0.2	2.9	0.5	2.4	0.5	0.0	51.0	22.7	19.5	3.9	3.1	4.8
Bulgaria	2003	407	8.5	20.8	0.0	0.8	10.1	19.4	3.7	36.7	0.0	0.0	30.1	29.1	30.9
	2007	436	4.7	8.9	4.0	1.8	5.6	4.1	0.0	13.0	31.2	26.8	19.4	15.7	22.3
Chinese Taipei	2003	1031	6.5	0.8	0.0	2.3	3.9	24.3	11.0	51.1	0.0	0.0	9.7	9.3	10.0
	2007	577	9.6	2.6	16.0	1.0	28.3	9.8	0.0	16.7	10.5	5.3	29.3	27.2	31.2
Cyprus	2003	438	12.8	12.3	0.0	0.7	10.7	7.8	13.6	42.1	0.0	0.0	25.8	21.2	29.9
	2007	625	7.2	4.1	6.8	1.2	8.2	4.7	0.0	17.5	30.5	19.6	19.5	19.8	19.1
Egypt	2003	1346	0.9	2.7	0.0	2.7	2.7	18.8	1.3	70.9	0.0	0.0	6.3	4.3	8.1
	2007	941	0.8	7.1	11.5	0.0	4.2	1.9	0.0	47.0	17.6	9.9	19.4	20.8	18.0
England	2003	519	17.5	6.1	0.0	1.1	13.1	12.6	9.8	39.7	0.0	0.0	24.8	19.6	29.5
	2007	554	18.1	5.8	6.9	0.7	19.5	9.1	0.0	21.9	12.0	6.0	31.5	26.2	37.1
Ghana	2003	178	0.0	1.3	0.0	3.9	4.6	6.7	1.2	82.3	0.0	0.0	5.2	3.1	6.4
	2007	762	0.0	0.2	4.3	0.0	1.0	0.6	0.0	13.8	44.0	36.3	4.4	3.0	5.6
Hong Kong SAR	2003	926	10.2	7.2	0.0	2.2	18.2	18.1	8.8	35.4	0.0	0.0	19.6	21.9	17.4
	2007	494	13.3	2.9	11.1	2.8	22.2	7.3	0.0	17.0	14.6	8.7	30.2	36.2	23.8
Hungary	2003	464	12.0	27.8	0.0	1.8	17.5	8.4	8.8	23.7	0.0	0.0	41.5	35.6	46.7
	2007	578	16.9	13.8	1.9	0.4	8.9	9.5	0.0	19.4	20.3	8.9	32.9	26.9	38.7
Indonesia	2003	481	1.8	4.4	0.0	1.0	8.2	7.6	1.3	75.8	0.0	0.0	7.2	6.0	8.2
	2007	599	0.5	2.0	3.9	0.2	0.9	0.4	0.0	47.2	26.2	18.6	6.6	4.8	8.5
Iran, Islamic Rep. of	2003	571	3.9	4.3	0.0	6.2	14.4	6.2	7.5	57.4	0.0	0.0	14.4	12.7	15.6
	2007	566	0.6	0.5	6.1	1.9	2.5	5.7	0.0	32.5	28.1	22.0	9.2	10.9	7.8
Israel	2003	538	7.9	4.2	0.0	4.4	20.9	11.6	8.5	42.6	0.0	0.0	16.5	14.6	17.9
	2007	476	4.7	4.1	2.9	0.4	9.6	5.4	0.0	20.0	30.3	22.6	12.1	13.7	10.2
Italy	2003	471	9.1	8.7	0.0	2.5	25.7	8.6	11.2	34.1	0.0	0.0	20.4	13.0	27.0
	2007	632	9.9	5.2	3.9	0.2	20.1	2.9	0.0	14.4	25.7	17.7	19.2	17.4	20.9
Japan	2003	987	15.1	18.9	0.0	0.1	13.4	20.9	4.7	27.0	0.0	0.0	34.1	34.0	34.2
	2007	618	30.3	6.6	15.4	4.1	9.6	4.3	0.0	17.1	8.2	4.4	56.3	55.8	56.9
Jordan	2003	745	8.7	9.2	0.0	4.3	9.4	16.1	2.0	50.2	0.0	0.0	22.3	23.9	20.6
	2007	751	8.5	9.0	18.6	0.3	5.2	3.0	0.0	35.7	12.5	7.2	36.4	42.1	31.3
Korea, Rep. of	2003	1091	3.9	2.0	0.0	0.4	24.8	25.0	2.5	41.5	0.0	0.0	6.2	7.1	5.4
	2007	604	7.7	0.8	20.6	4.3	21.9	1.4	0.0	30.2	11.4	1.8	33.4	33.0	33.7
Lebanon	2003	258	5.0	15.2	0.0	2.5	46.5	7.6	3.3	19.8	0.0	0.0	22.8	20.1	26.3
	2007	540	1.0	9.3	8.2	1.1	2.4	2.1	0.0	17.6	27.5	30.7	19.6	22.1	16.9

V1 = Percent scoring 1 or better V2 = Percent scoring 2 or better
 Percent right for boys and girls corresponds to the percent obtaining the maximum score on the item.
 Because of missing gender information, some totals may appear inconsistent.

Science: Earth Science / Applying (S032120B - S05_14B)

Label: Global warming

Type: CR Key: -

COUNTRY	Year	N	10	11	12	19	70	71	72	79	OMIT TED	NOT REACH ED	V1	1.GIRL %Right	2.BOY %Right
Lithuania	2003	564	12.8	6.9	0.0	1.4	17.5	14.4	14.2	32.8	0.0	0.0	21.1	19.1	23.0
	2007	567	9.7	6.2	6.5	2.7	11.1	9.2	0.0	20.9	23.1	10.6	25.0	22.4	27.8
Malaysia	2003	975	2.5	4.0	0.0	1.3	11.6	43.6	9.5	27.5	0.0	0.0	7.8	7.2	8.3
	2007	630	2.7	1.6	20.4	1.9	5.7	6.0	0.0	33.1	15.9	12.6	26.6	25.2	28.4
Norway	2003	606	9.8	6.2	0.0	0.3	18.1	4.1	9.8	51.8	0.0	0.0	16.3	11.5	21.2
	2007	657	8.9	9.2	0.9	0.0	9.5	8.0	0.0	28.1	21.7	13.6	19.0	15.1	23.0
Palestinian Nat'l Auth.	2003	923	1.0	2.9	0.0	1.3	12.0	25.8	3.9	53.1	0.0	0.0	5.2	5.2	5.3
	2007	624	1.2	3.4	13.2	0.7	9.8	2.2	0.0	47.2	11.6	10.6	18.6	19.5	17.6
Romania	2003	402	9.0	23.7	0.0	1.8	15.1	18.7	3.5	28.3	0.0	0.0	34.5	34.1	35.0
	2007	592	3.5	9.3	10.4	0.8	7.6	3.3	0.0	14.3	29.0	21.7	24.0	19.6	28.8
Russian Federation	2003	535	7.6	18.5	0.0	3.3	14.3	20.9	0.5	34.9	0.0	0.0	29.5	32.7	26.7
	2007	641	7.0	5.5	11.8	0.7	7.3	0.3	0.0	16.9	28.2	22.5	25.0	21.2	28.8
Scotland	2003	602	11.1	5.3	0.0	2.1	11.8	15.7	12.3	41.7	0.0	0.0	18.5	13.3	23.7
	2007	573	13.6	7.1	4.8	0.1	13.7	12.3	0.0	20.6	17.9	9.7	25.7	22.7	28.8
Serbia	2003	335	3.7	26.1	0.0	2.4	11.4	19.8	3.0	33.6	0.0	0.0	32.3	25.7	38.3
	2007	573	3.0	14.0	2.6	0.4	5.2	4.2	0.0	12.9	33.3	24.4	20.0	18.2	21.7
Singapore	2003	1309	9.2	8.4	0.0	3.7	20.1	24.4	4.0	30.2	0.0	0.0	21.4	21.1	21.6
	2007	662	7.4	2.5	21.6	7.1	15.7	5.6	0.0	27.8	8.9	3.2	38.7	39.6	37.7
Slovenia	2003	564	10.2	12.3	0.0	5.0	12.7	9.7	11.8	38.2	0.0	0.0	27.5	22.4	32.0
	2007	570	12.4	15.1	5.2	0.8	11.9	10.6	0.0	24.9	14.9	4.2	33.5	32.3	34.8
Sweden	2003	630	18.2	6.5	0.0	0.9	12.4	5.4	11.7	44.9	0.0	0.0	25.5	21.3	29.6
	2007	759	17.8	4.3	1.7	1.9	5.6	9.2	0.0	20.6	22.5	16.4	25.7	24.9	26.5
Tunisia	2003	494	2.5	2.4	0.0	2.6	11.6	9.4	0.6	70.8	0.0	0.0	7.5	5.8	9.1
	2007	581	2.9	2.3	8.8	0.3	6.8	2.2	0.0	40.6	21.1	15.1	14.2	12.6	16.0
United States	2003	1826	11.3	8.5	0.0	3.9	23.0	9.6	5.2	38.4	0.0	0.0	23.7	17.9	29.9
	2007	1052	10.4	9.9	7.6	0.7	21.2	8.6	0.0	28.5	7.6	5.5	28.6	24.7	33.1
International Avg.	2003	687	8.1	8.9	0.0	2.5	14.6	15.6	6.3	44.2	0.0	0.0	19.4	17.4	21.4
	2007	627	7.9	5.5	9.0	1.5	10.0	5.1	0.0	25.1	21.1	14.8	23.9	23.0	24.8
Basque Country, Spain	2003	338	13.9	6.1	0.0	0.7	22.9	7.4	7.1	41.9	0.0	0.0	20.7	16.7	24.2
	2007	317	10.6	1.8	4.8	8.0	7.0	14.4	0.0	19.1	20.5	13.8	25.2	19.0	31.6
Ontario, Canada	2003	709	17.3	10.8	0.0	6.4	22.9	5.4	4.6	32.6	0.0	0.0	34.5	31.3	37.9
	2007	501	14.6	11.9	7.2	1.3	15.1	9.5	0.0	17.5	12.4	10.5	35.0	31.5	38.1
Quebec, Canada	2003	858	28.7	12.9	0.0	2.7	19.3	2.4	7.6	26.4	0.0	0.0	44.4	40.0	48.4
	2007	570	21.5	5.9	2.3	0.3	16.3	5.9	0.0	24.7	12.5	10.6	29.9	25.6	33.9

V1 = Percent scoring 1 or better V2 = Percent scoring 2 or better
 Percent right for boys and girls corresponds to the percent obtaining the maximum score on the item.
 Because of missing gender information, some totals may appear inconsistent.

Science: Biology / Knowing (S032606 - S07_01)
 Label: Which organ system
 Type: MC Key: D

COUNTRY	Year	N	DIFF	A	B	C	D	OMIT TED	NOT REACH ED	1.GIRL %Right	2.BOY %Right
Armenia	2003	429	91.5	2.0	4.6	1.9	91.5	0.0	0.0	92.8	89.8
	2007	674	89.6	1.3	5.3	1.1	89.6	2.4	0.3	92.6	86.1
Australia	2003	398	79.0	6.0	10.7	4.3	79.0	0.0	0.0	79.9	78.0
	2007	572	74.4	8.4	8.1	8.1	74.4	0.9	0.1	73.5	75.3
Bahrain	2003	330	75.9	10.8	10.0	3.2	75.9	0.0	0.0	78.0	73.7
	2007	599	68.9	11.2	15.4	3.3	68.9	1.0	0.1	74.1	64.1
Botswana	2003	427	53.6	19.7	12.5	14.3	53.6	0.0	0.0	54.5	52.7
	2007	601	57.5	15.4	10.4	15.8	57.5	0.1	0.7	63.2	50.6
Bulgaria	2003	313	92.3	0.0	3.4	4.3	92.3	0.0	0.0	91.7	92.8
	2007	441	88.7	3.6	4.7	2.4	88.7	0.6	0.0	90.6	86.9
Chinese Taipei	2003	444	96.8	1.0	1.8	0.4	96.8	0.0	0.0	98.7	95.1
	2007	573	95.5	0.7	2.7	0.8	95.5	0.4	0.0	96.6	94.4
Cyprus	2003	321	80.1	6.6	9.5	3.9	80.1	0.0	0.0	84.0	76.2
	2007	622	80.4	6.3	9.5	3.0	80.4	0.6	0.1	83.8	77.1
Egypt	2003	582	53.8	13.7	22.5	10.0	53.8	0.0	0.0	58.2	49.9
	2007	935	59.7	10.4	22.8	5.8	59.7	1.2	0.1	58.1	61.1
England	2003	235	85.0	3.7	7.6	3.7	85.0	0.0	0.0	85.5	84.4
	2007	563	85.2	4.3	5.7	4.5	85.2	0.2	0.0	85.2	85.2
Ghana	2003	410	30.6	29.5	21.0	18.9	30.6	0.0	0.0	31.0	30.2
	2007	749	40.3	32.8	12.4	12.0	40.3	1.3	1.1	36.3	43.8
Hong Kong SAR	2003	417	88.1	4.5	6.8	0.5	88.1	0.0	0.0	87.2	89.0
	2007	498	84.7	3.6	9.8	1.3	84.7	0.4	0.2	85.4	84.0
Hungary	2003	269	90.5	1.6	3.8	4.1	90.5	0.0	0.0	92.1	89.4
	2007	588	84.3	1.2	8.5	5.6	84.3	0.1	0.3	85.7	83.2
Indonesia	2003	478	79.9	5.7	8.2	6.3	79.9	0.0	0.0	79.6	80.1
	2007	594	82.5	5.1	8.1	3.4	82.5	0.8	0.1	81.2	83.8
Iran, Islamic Rep. of	2003	411	90.0	2.0	6.4	1.6	90.0	0.0	0.0	89.0	90.6
	2007	557	88.1	2.7	6.7	1.7	88.1	0.8	0.1	87.1	88.9
Israel	2003	350	77.9	3.1	15.7	3.3	77.9	0.0	0.0	74.5	81.7
	2007	465	72.5	7.9	13.6	3.8	72.5	2.0	0.2	68.2	77.5
Italy	2003	360	94.3	0.5	4.3	0.9	94.3	0.0	0.0	93.9	94.6
	2007	637	93.1	0.2	5.0	0.9	93.1	0.2	0.6	94.3	92.0
Japan	2003	397	88.3	5.3	5.4	1.0	88.3	0.0	0.0	87.9	88.6
	2007	615	87.6	5.9	3.3	2.5	87.6	0.8	0.0	89.5	85.7
Jordan	2003	372	64.3	8.8	23.5	3.4	64.3	0.0	0.0	69.2	59.6
	2007	749	51.1	15.2	27.3	5.0	51.1	1.4	0.0	49.1	52.9
Korea, Rep. of	2003	439	91.4	4.1	4.5	0.0	91.4	0.0	0.0	93.3	89.7
	2007	604	96.4	1.1	2.1	0.3	96.4	0.2	0.0	96.2	96.5
Lebanon	2003	309	59.7	13.6	18.7	7.9	59.7	0.0	0.0	65.8	51.8
	2007	533	60.3	8.2	21.3	6.9	60.3	2.8	0.5	58.7	62.1

DIFF = Percent correct
 Because of missing gender information, some totals may appear inconsistent.

Science: Biology / Knowing (S032606 - S07_01)
 Label: Which organ system
 Type: MC Key: D

COUNTRY	Year	N	DIFF	A	B	C	D	OMIT TED	NOT REACH ED	1.GIRL %Right	2.BOY %Right
Lithuania	2003	384	97.8	0.0	2.2	0.0	97.8	0.0	0.0	97.3	98.2
	2007	574	96.5	1.1	1.7	0.4	96.5	0.4	0.0	97.1	95.9
Malaysia	2003	427	92.7	0.9	1.9	4.5	92.7	0.0	0.0	94.8	90.6
	2007	641	75.0	5.9	8.0	10.0	75.0	1.0	0.0	78.4	70.9
Norway	2003	333	57.9	3.9	28.9	9.3	57.9	0.0	0.0	58.3	57.6
	2007	662	61.1	3.5	27.0	5.9	61.1	2.2	0.3	61.9	60.3
Palestinian Nat'l Auth.	2003	425	38.6	17.2	36.7	7.5	38.6	0.0	0.0	40.1	36.8
	2007	605	35.8	19.4	35.0	7.9	35.8	2.0	0.0	35.8	35.8
Romania	2003	328	89.6	3.4	2.3	4.7	89.6	0.0	0.0	87.9	91.3
	2007	595	88.1	5.8	3.8	0.9	88.1	1.4	0.0	89.6	86.7
Russian Federation	2003	391	93.4	1.3	5.1	0.2	93.4	0.0	0.0	94.7	92.2
	2007	640	93.4	0.0	4.4	1.3	93.4	0.9	0.0	94.1	92.7
Scotland	2003	289	65.8	7.5	20.4	6.2	65.8	0.0	0.0	59.4	71.6
	2007	594	61.9	10.7	17.8	8.4	61.9	1.2	0.0	58.5	65.8
Serbia	2003	343	92.8	1.8	3.3	2.1	92.8	0.0	0.0	94.8	90.8
	2007	569	92.1	1.1	5.0	1.4	92.1	0.4	0.0	91.9	92.3
Singapore	2003	493	85.7	3.6	5.8	4.9	85.7	0.0	0.0	88.8	82.7
	2007	649	90.3	1.8	4.8	2.9	90.3	0.1	0.0	93.1	87.5
Slovenia	2003	306	90.3	2.1	7.4	0.3	90.3	0.0	0.0	90.4	90.1
	2007	590	85.9	2.2	9.5	1.2	85.9	1.2	0.0	86.4	85.3
Sweden	2003	345	87.6	2.1	8.5	1.8	87.6	0.0	0.0	92.7	83.2
	2007	741	82.3	4.7	9.8	2.7	82.3	0.4	0.1	85.5	79.4
Tunisia	2003	389	91.7	2.9	2.6	2.9	91.7	0.0	0.0	91.4	92.1
	2007	565	61.2	15.6	16.2	3.5	61.2	3.2	0.2	60.6	61.7
United States	2003	752	81.1	5.4	7.5	5.9	81.1	0.0	0.0	82.4	79.6
	2007	1047	78.2	8.2	7.5	5.1	78.2	0.8	0.2	77.0	79.3
International Avg.	2003	391	79.6	5.9	10.1	4.4	79.6	0.0	0.0	80.6	78.6
	2007	625	77.0	6.8	10.7	4.2	77.0	1.0	0.2	77.6	76.5
Basque Country, Spain	2003	216	92.4	1.8	4.5	1.4	92.4	0.0	0.0	93.6	91.2
	2007	329	93.0	1.2	2.5	2.1	93.0	0.5	0.7	93.8	92.3
Ontario, Canada	2003	352	84.0	7.2	4.5	4.3	84.0	0.0	0.0	83.9	84.1
	2007	486	83.8	7.1	5.9	2.2	83.8	0.8	0.2	82.6	85.1
Quebec, Canada	2003	361	86.4	2.0	9.8	1.9	86.4	0.0	0.0	84.2	88.3
	2007	563	86.9	2.9	7.1	2.5	86.9	0.6	0.0	87.6	86.2

DIFF = Percent correct
 Because of missing gender information, some totals may appear inconsistent.

Science: Biology / Knowing (S032015 - S07_02)
 Label: Structure found in plant cells
 Type: CR Key: -

COUNTRY	Year	N	10	11	12	19	70	71	79	OMIT TED	NOT REACH ED	V1	1.GIRL %Right	2.BOY %Right
Armenia	2003	141	66.8	0.0	2.2	1.1	2.0	11.8	16.1	0.0	0.0	70.2	68.9	72.3
	2007	676	39.2	1.8	1.2	0.5	0.7	3.4	21.2	31.6	0.3	42.8	44.5	40.8
Australia	2003	295	27.0	17.2	0.9	0.6	10.2	25.3	18.8	0.0	0.0	45.7	38.8	52.4
	2007	572	14.1	16.5	1.3	0.0	9.4	14.7	18.7	25.1	0.1	31.9	27.2	36.8
Bahrain	2003	221	41.1	2.2	0.5	3.3	18.4	3.4	31.2	0.0	0.0	47.0	52.7	40.2
	2007	599	27.7	14.9	0.7	8.4	6.8	0.3	20.2	20.8	0.1	51.7	66.0	38.1
Botswana	2003	390	19.1	25.5	0.0	0.0	26.6	2.6	26.3	0.0	0.0	44.6	46.1	43.0
	2007	601	17.5	23.8	0.7	0.0	22.6	0.7	28.2	5.8	0.7	42.1	48.3	34.5
Bulgaria	2003	178	34.9	14.8	10.6	1.2	5.5	3.5	29.4	0.0	0.0	61.6	60.9	62.1
	2007	441	24.0	6.4	7.8	0.1	4.2	5.0	8.7	43.7	0.0	38.4	45.5	31.4
Chinese Taipei	2003	379	36.6	39.0	0.0	0.0	4.0	8.8	11.6	0.0	0.0	75.6	74.4	76.7
	2007	573	35.4	34.8	0.2	0.3	2.3	5.5	8.7	12.9	0.0	70.6	72.4	69.1
Cyprus	2003	164	42.1	9.5	1.1	0.5	5.7	5.9	35.2	0.0	0.0	53.2	56.7	48.6
	2007	622	24.8	4.7	0.6	1.7	3.3	6.5	16.5	41.7	0.1	31.8	35.4	28.3
Egypt	2003	451	28.8	8.4	1.0	0.1	15.8	6.7	39.2	0.0	0.0	38.4	37.0	39.6
	2007	938	37.7	22.6	1.7	0.0	10.9	0.4	16.2	10.3	0.1	62.1	70.9	53.6
England	2003	213	27.7	22.8	1.3	0.0	29.0	11.1	8.1	0.0	0.0	51.8	45.2	59.9
	2007	563	20.9	27.6	11.6	0.4	17.0	5.7	9.6	7.3	0.0	60.5	64.0	57.2
Ghana	2003	282	11.5	13.6	1.6	0.0	11.8	4.8	56.6	0.0	0.0	26.8	24.9	28.0
	2007	749	13.8	16.5	0.6	0.0	11.5	2.4	31.2	23.0	1.1	30.9	27.8	33.7
Hong Kong SAR	2003	336	43.0	25.0	0.3	0.0	10.1	8.8	12.7	0.0	0.0	68.4	69.7	67.0
	2007	498	37.4	15.9	0.5	0.4	5.0	1.9	18.2	20.5	0.2	54.2	51.5	56.9
Hungary	2003	153	61.6	9.9	1.0	3.6	6.1	5.7	12.1	0.0	0.0	76.1	77.8	74.8
	2007	588	31.3	2.2	0.1	0.0	3.1	6.3	13.7	43.0	0.3	33.7	37.2	30.7
Indonesia	2003	272	17.1	8.6	1.6	1.2	4.3	9.5	57.7	0.0	0.0	28.4	32.7	24.0
	2007	594	10.6	4.4	0.6	3.7	4.1	2.1	53.9	20.2	0.3	19.3	22.2	16.4
Iran, Islamic Rep. of	2003	252	29.4	0.0	0.0	0.4	1.7	50.8	17.7	0.0	0.0	29.8	31.9	28.3
	2007	557	15.2	2.3	0.0	0.5	0.0	22.0	29.3	30.7	0.1	18.0	20.3	16.2
Israel	2003	202	31.1	12.0	2.9	1.3	2.8	27.6	22.3	0.0	0.0	47.3	47.2	47.3
	2007	465	9.0	4.7	0.3	1.2	2.1	11.9	27.0	43.6	0.2	15.2	16.3	13.8
Italy	2003	138	39.6	7.8	1.3	1.6	7.4	14.5	27.8	0.0	0.0	50.3	49.2	51.3
	2007	637	17.0	1.5	0.2	0.7	7.2	12.3	12.5	48.1	0.6	19.4	18.0	20.6
Japan	2003	308	37.5	0.0	0.0	0.0	0.9	47.0	14.6	0.0	0.0	37.5	32.0	42.9
	2007	615	24.4	1.6	0.0	0.0	0.3	33.4	23.6	16.6	0.0	26.0	23.4	28.7
Jordan	2003	271	48.4	3.3	1.6	2.2	2.4	6.4	35.7	0.0	0.0	55.5	62.5	48.4
	2007	749	31.9	3.6	0.3	0.4	2.0	5.3	38.0	18.5	0.0	36.2	43.4	29.6
Korea, Rep. of	2003	376	26.3	26.1	0.0	0.0	10.8	20.4	16.3	0.0	0.0	52.4	54.2	50.9
	2007	604	37.4	16.0	0.7	0.0	10.0	12.6	13.1	10.1	0.0	54.1	47.2	60.7
Lebanon	2003	145	32.1	3.9	0.0	0.7	9.9	15.7	37.7	0.0	0.0	36.7	27.8	47.8
	2007	538	15.8	3.3	0.6	0.1	5.0	8.8	22.6	43.1	0.7	19.8	21.6	17.7

V1 = Percent scoring 1 or better V2 = Percent scoring 2 or better
 Percent right for boys and girls corresponds to the percent obtaining the maximum score on the item.
 Because of missing gender information, some totals may appear inconsistent.

Science: Biology / Knowing (S032015 - S07_02)
 Label: Structure found in plant cells
 Type: CR Key: -

COUNTRY	Year	N	10	11	12	19	70	71	79	OMIT TED	NOT REACH ED	V1	1.GIRL %Right	2.BOY %Right
Lithuania	2003	206	57.8	2.9	2.6	1.2	7.1	9.8	18.6	0.0	0.0	64.6	70.6	58.1
	2007	574	26.1	4.4	2.7	0.0	7.5	6.5	15.3	37.5	0.0	33.2	36.3	29.9
Malaysia	2003	340	23.7	24.8	1.9	1.1	12.6	14.8	21.2	0.0	0.0	51.4	56.2	46.6
	2007	641	14.2	26.1	2.1	0.0	5.7	2.2	35.9	13.6	0.3	42.4	45.1	39.2
Norway	2003	252	24.2	11.7	3.5	1.9	2.2	15.8	40.7	0.0	0.0	41.3	41.1	41.5
	2007	662	11.0	5.7	6.1	0.0	4.5	11.6	38.0	22.8	0.3	22.8	23.5	22.2
Palestinian Nat'l Auth.	2003	322	37.1	9.2	0.5	0.4	10.3	9.7	32.9	0.0	0.0	47.2	46.1	48.5
	2007	605	24.1	5.8	1.3	2.0	9.2	8.3	29.7	19.4	0.1	33.2	40.0	26.0
Romania	2003	186	61.1	0.0	0.0	0.6	4.5	6.8	26.9	0.0	0.0	61.7	69.3	52.0
	2007	594	33.5	0.4	0.7	0.3	3.9	8.6	15.0	37.6	0.0	34.9	39.7	30.6
Russian Federation	2003	234	62.9	0.3	1.0	2.4	2.9	15.4	15.1	0.0	0.0	66.6	68.5	64.9
	2007	640	42.6	0.1	2.5	2.4	1.4	12.7	11.8	26.2	0.3	47.6	49.2	46.0
Scotland	2003	207	23.3	12.9	0.0	0.0	19.1	25.2	19.5	0.0	0.0	36.2	32.7	39.3
	2007	594	10.4	12.5	1.4	0.0	11.2	17.9	21.1	25.5	0.0	24.3	24.7	23.8
Serbia	2003	154	52.6	3.4	2.6	1.4	5.8	10.8	23.4	0.0	0.0	59.9	55.3	63.9
	2007	569	31.4	3.4	1.3	1.3	4.3	8.2	7.4	42.8	0.0	37.4	37.6	37.1
Singapore	2003	438	12.2	35.7	0.0	0.0	9.5	26.5	16.0	0.0	0.0	48.0	47.9	48.0
	2007	649	16.1	59.1	0.3	0.4	6.1	4.3	10.9	3.0	0.0	75.9	76.3	75.4
Slovenia	2003	217	53.4	3.3	2.5	0.2	4.1	17.9	18.6	0.0	0.0	59.4	67.1	50.9
	2007	590	39.2	4.6	4.0	3.6	2.3	18.2	14.1	13.9	0.0	51.4	51.8	51.0
Sweden	2003	257	50.7	3.2	0.0	4.2	3.2	5.2	33.4	0.0	0.0	58.1	57.2	59.0
	2007	741	30.7	3.4	0.4	4.6	5.6	7.6	22.0	25.4	0.3	39.1	41.0	37.3
Tunisia	2003	257	28.6	0.0	0.0	0.4	1.2	2.3	67.5	0.0	0.0	29.0	28.9	29.1
	2007	565	21.9	0.4	0.4	0.1	3.0	21.2	34.2	18.7	0.2	22.8	21.2	24.3
United States	2003	645	36.9	15.8	0.4	0.2	7.2	14.1	25.3	0.0	0.0	53.3	55.5	50.9
	2007	1047	22.3	24.8	0.1	0.0	11.8	12.3	17.5	11.1	0.2	47.1	45.4	48.7
International Avg.	2003	269	37.2	11.3	1.3	1.0	8.3	14.1	26.9	0.0	0.0	50.7	51.1	50.2
	2007	626	24.5	11.4	1.6	1.0	6.2	9.1	21.3	24.7	0.2	38.5	40.5	36.6
Basque Country, Spain	2003	92	15.5	5.0	1.9	0.9	6.4	27.9	42.4	0.0	0.0	23.3	22.6	24.0
	2007	329	11.8	1.1	0.0	0.0	3.3	12.4	25.3	45.5	0.7	12.9	14.4	11.4
Ontario, Canada	2003	263	41.3	19.3	0.5	0.0	6.9	7.7	24.3	0.0	0.0	61.2	59.8	62.5
	2007	486	21.7	32.8	1.0	0.0	8.3	4.6	16.6	14.8	0.2	55.4	54.4	56.6
Quebec, Canada	2003	263	37.8	1.8	0.0	0.0	4.1	12.0	44.3	0.0	0.0	39.6	35.9	42.4
	2007	564	10.5	3.9	0.8	0.4	11.7	10.2	34.1	28.4	0.0	15.6	15.5	15.7

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 Percent right for boys and girls corresponds to the percent obtaining the maximum score on the item.
 Because of missing gender information, some totals may appear inconsistent.

Science: Biology / Knowing (S032310A - S07_03A)
 Label: Factors for photosynthesis
 Type: CR Key: -

COUNTRY	Year	N	10	11	12	13	19	70	71	72	79	OMIT TED	NOT REACH ED	V1	1.GIRL %Right	2.BOY %Right
Armenia	2003	197	57.3	15.9	10.0	0.4	0.0	0.4	0.0	0.0	16.0	0.0	0.0	83.6	84.5	82.3
	2007	676	43.5	9.4	6.8	0.9	0.3	3.3	1.0	0.1	9.3	25.0	0.3	61.0	62.1	59.6
Australia	2003	283	49.1	9.3	10.2	0.2	0.0	4.1	4.6	0.0	22.5	0.0	0.0	68.8	64.1	73.2
	2007	572	37.2	2.8	11.3	0.2	0.0	3.3	0.3	0.5	18.2	26.1	0.1	51.5	49.8	53.2
Bahrain	2003	231	55.9	5.5	14.8	5.8	0.0	1.6	0.0	2.7	13.8	0.0	0.0	81.9	79.6	85.5
	2007	599	39.6	5.2	10.0	1.2	0.6	2.6	0.4	0.5	17.7	22.1	0.1	56.6	68.0	45.7
Botswana	2003	381	29.4	4.3	14.7	5.1	1.6	4.2	2.6	0.3	37.8	0.0	0.0	55.1	52.2	58.4
	2007	601	21.8	4.7	15.3	2.6	0.2	6.3	4.6	0.0	36.3	7.0	1.1	44.7	49.7	38.5
Bulgaria	2003	211	59.9	15.5	1.7	0.6	0.3	1.7	0.0	0.0	20.3	0.0	0.0	78.0	75.8	80.2
	2007	441	40.2	5.2	6.3	0.8	0.0	2.6	0.3	0.0	10.5	34.0	0.2	52.5	51.0	53.9
Chinese Taipei	2003	380	47.7	28.5	11.0	1.0	0.3	2.3	1.6	0.5	7.0	0.0	0.0	88.5	89.1	87.8
	2007	573	48.5	17.1	9.4	1.1	0.0	2.6	3.6	0.1	6.8	10.7	0.0	76.2	77.5	75.0
Cyprus	2003	212	35.8	10.4	9.0	0.0	25.8	4.7	0.8	0.6	12.9	0.0	0.0	81.1	78.9	83.8
	2007	622	44.7	6.2	9.7	0.5	0.0	3.1	0.3	0.0	7.2	28.2	0.2	61.1	64.9	57.3
Egypt	2003	513	45.8	10.9	5.9	2.5	0.2	7.7	1.2	0.6	25.1	0.0	0.0	65.3	70.4	60.9
	2007	938	38.0	9.5	8.6	1.3	0.1	3.0	0.3	0.8	26.6	11.6	0.2	57.4	63.5	51.6
England	2003	224	67.1	11.2	7.2	0.7	0.0	3.4	1.3	0.0	9.1	0.0	0.0	86.2	84.8	87.9
	2007	563	57.0	11.0	9.9	0.1	0.0	2.6	1.2	0.3	11.1	6.6	0.3	78.0	78.7	77.3
Ghana	2003	308	36.1	9.4	13.6	0.6	0.3	3.6	2.3	0.0	34.0	0.0	0.0	60.1	56.3	62.6
	2007	749	35.6	9.2	9.7	0.8	0.1	3.8	1.5	0.4	19.7	18.0	1.2	55.4	50.8	59.4
Hong Kong SAR	2003	390	55.9	17.2	19.9	2.0	0.0	1.8	0.3	0.3	2.6	0.0	0.0	95.1	95.3	94.9
	2007	498	54.6	14.1	18.7	2.4	0.3	0.6	0.0	0.0	2.5	6.4	0.4	90.1	92.0	88.2
Hungary	2003	221	63.6	12.5	5.2	0.7	0.0	2.2	1.1	1.4	13.3	0.0	0.0	82.0	76.8	85.6
	2007	588	47.0	8.4	5.0	1.1	0.8	2.1	0.7	0.9	8.1	25.7	0.3	62.3	63.9	61.0
Indonesia	2003	391	52.3	7.6	9.9	1.8	0.0	4.5	0.6	0.0	23.1	0.0	0.0	71.8	69.0	74.5
	2007	594	48.3	6.2	9.3	0.2	0.1	2.1	0.3	0.0	25.8	7.4	0.3	64.0	67.5	60.6
Iran, Islamic Rep. of	2003	214	31.4	13.4	11.7	0.5	1.0	5.4	1.9	0.9	33.9	0.0	0.0	57.9	54.4	60.6
	2007	557	11.8	3.7	8.3	0.5	0.0	3.1	0.2	2.1	20.0	50.2	0.1	24.4	22.6	25.7
Israel	2003	201	63.9	10.8	7.2	1.2	0.0	1.6	1.5	0.4	13.4	0.0	0.0	83.1	87.6	79.0
	2007	465	26.0	3.9	7.1	0.7	0.2	2.3	0.4	0.6	14.5	44.1	0.4	37.8	37.2	38.6
Italy	2003	235	68.9	4.8	9.0	0.5	1.3	2.4	1.9	0.6	10.7	0.0	0.0	84.4	82.9	86.0
	2007	637	43.8	10.3	6.5	0.1	0.0	3.2	0.7	0.0	11.1	23.8	0.6	60.7	60.8	60.7
Japan	2003	363	56.5	17.5	16.3	0.0	0.0	2.7	2.6	0.3	4.0	0.0	0.0	90.3	89.1	91.6
	2007	615	55.9	17.7	14.0	0.0	0.1	2.5	0.8	0.2	3.7	5.0	0.0	87.7	88.4	86.9
Jordan	2003	333	52.2	11.4	9.3	2.6	0.0	4.0	0.0	0.5	19.9	0.0	0.0	75.5	75.6	75.5
	2007	749	49.4	11.4	7.9	2.8	0.0	3.1	0.5	0.6	17.0	7.3	0.0	71.4	76.7	66.6
Korea, Rep. of	2003	389	48.2	22.7	9.8	0.8	0.0	3.2	1.2	0.0	14.1	0.0	0.0	81.4	82.0	80.9
	2007	604	56.5	11.2	11.2	0.0	0.0	2.2	2.0	0.2	9.7	7.2	0.0	78.8	78.8	78.9
Lebanon	2003	214	53.4	9.9	11.2	0.4	3.1	2.6	0.2	0.6	18.7	0.0	0.0	77.9	78.2	77.5
	2007	538	38.0	7.3	5.8	1.2	0.0	1.6	3.3	1.8	11.3	29.1	0.7	52.3	55.0	49.2

V1 = Percent scoring 1 or better V2 = Percent scoring 2 or better
 Percent right for boys and girls corresponds to the percent obtaining the maximum score on the item.
 Because of missing gender information, some totals may appear inconsistent.

Science: Biology / Knowing (S032310A - S07_03A)
 Label: Factors for photosynthesis
 Type: CR Key: -

COUNTRY	Year	N	10	11	12	13	19	70	71	72	79	OMIT TED	NOT REACH ED	V1	1.GIRL %Right	2.BOY %Right
Lithuania	2003	267	69.0	14.7	3.0	0.6	0.0	4.7	0.0	0.0	7.9	0.0	0.0	87.4	85.8	89.1
	2007	574	44.9	7.4	4.5	0.8	0.0	4.1	0.2	0.3	11.6	26.2	0.1	57.6	60.7	54.2
Malaysia	2003	369	47.4	13.0	11.9	0.5	0.0	2.4	1.3	0.9	22.6	0.0	0.0	72.8	73.4	72.3
	2007	641	35.0	9.2	10.5	3.7	0.3	2.4	0.7	1.0	26.5	10.5	0.3	58.7	61.9	54.8
Norway	2003	235	31.1	14.3	8.9	4.2	0.0	7.2	3.5	0.0	30.8	0.0	0.0	58.5	59.3	57.7
	2007	662	32.1	6.5	10.5	0.5	0.0	3.2	2.0	0.9	17.8	26.1	0.3	49.6	52.9	46.6
Palestinian Nat'l Auth.	2003	381	39.8	9.7	17.0	4.6	0.2	5.4	2.0	0.4	20.9	0.0	0.0	71.2	76.4	64.7
	2007	605	35.2	8.1	12.2	3.4	0.0	4.0	1.6	1.6	22.2	11.6	0.1	59.0	64.6	53.1
Romania	2003	221	61.9	10.2	6.8	0.5	0.0	1.8	0.3	1.4	17.1	0.0	0.0	79.5	82.1	76.6
	2007	594	36.7	5.3	8.3	1.3	2.7	2.3	0.9	0.3	15.1	27.1	0.1	54.2	56.0	52.6
Russian Federation	2003	286	79.4	7.3	2.3	1.1	0.0	2.2	0.0	0.0	7.6	0.0	0.0	90.2	90.2	90.1
	2007	640	57.9	4.7	4.1	0.1	0.0	1.8	0.0	0.0	7.4	23.8	0.3	66.8	67.5	66.0
Scotland	2003	211	56.4	9.4	11.7	0.8	0.0	0.9	1.5	0.0	19.3	0.0	0.0	78.3	75.6	80.6
	2007	594	40.7	4.6	9.7	0.8	0.0	1.5	2.3	0.2	13.5	26.5	0.2	55.8	54.6	57.1
Serbia	2003	210	59.5	8.8	10.2	0.0	0.6	5.2	0.0	1.5	14.2	0.0	0.0	79.1	81.8	76.6
	2007	569	48.7	4.4	9.3	0.9	0.8	1.3	0.3	0.2	8.1	25.9	0.0	64.0	65.7	62.5
Singapore	2003	472	57.9	22.3	8.5	0.9	0.0	1.9	0.1	0.3	8.0	0.0	0.0	89.6	86.9	92.6
	2007	649	55.1	16.2	13.1	0.5	0.3	2.5	0.8	0.0	7.9	3.6	0.0	85.2	88.1	82.2
Slovenia	2003	272	60.1	15.1	7.6	0.9	0.5	3.3	3.0	0.0	9.5	0.0	0.0	84.2	81.7	87.0
	2007	590	56.5	13.6	9.8	1.1	0.0	1.0	2.2	0.0	11.0	4.8	0.0	81.0	84.0	77.7
Sweden	2003	263	43.1	14.1	8.2	0.8	0.0	8.0	6.9	0.0	18.9	0.0	0.0	66.3	67.6	65.1
	2007	741	36.8	7.1	12.3	0.6	0.1	4.3	3.7	0.5	12.6	21.7	0.4	56.8	60.6	53.3
Tunisia	2003	326	35.6	21.9	4.9	5.2	1.5	3.5	9.1	0.0	18.3	0.0	0.0	69.1	70.3	67.7
	2007	565	34.6	17.8	2.2	2.2	0.0	4.2	4.7	0.8	18.6	14.6	0.3	56.8	54.4	59.1
United States	2003	641	62.7	4.9	9.1	0.4	0.0	3.2	2.4	0.4	17.0	0.0	0.0	77.1	75.5	78.8
	2007	1047	57.0	5.0	9.4	0.4	0.0	2.4	2.8	0.5	10.1	12.1	0.2	71.9	71.9	71.8
International Avg.	2003	304	52.6	12.6	9.6	1.5	1.1	3.4	1.7	0.4	17.1	0.0	0.0	77.3	76.8	77.8
	2007	626	42.7	8.6	9.3	1.1	0.2	2.8	1.3	0.5	14.2	19.1	0.3	61.8	63.7	60.0
Basque Country, Spain	2003	144	57.9	8.7	7.8	0.9	0.8	2.8	1.1	1.0	19.1	0.0	0.0	76.1	73.0	79.4
	2007	329	49.6	5.7	6.7	0.2	0.4	2.5	0.6	1.2	14.6	18.0	0.7	62.5	63.9	61.2
Ontario, Canada	2003	261	61.6	3.6	9.7	1.3	0.0	2.0	1.1	0.0	20.5	0.0	0.0	76.3	77.0	75.5
	2007	486	48.5	2.5	11.7	0.0	1.5	1.1	0.1	2.6	13.6	18.2	0.2	64.3	59.8	68.9
Quebec, Canada	2003	300	71.7	6.8	6.9	0.5	0.0	1.5	1.1	0.6	10.8	0.0	0.0	85.9	83.8	87.6
	2007	564	41.9	4.9	9.7	1.0	0.1	2.1	1.1	1.1	18.2	19.9	0.0	57.5	61.4	53.6

V1 = Percent scoring 1 or better V2 = Percent scoring 2 or better
 Percent right for boys and girls corresponds to the percent obtaining the maximum score on the item.
 Because of missing gender information, some totals may appear inconsistent.

Science: Biology / Knowing (S032310B - S07_03B)
 Label: Factors for photosynthesis
 Type: CR Key: -

COUNTRY	Year	N	10	11	12	13	19	70	71	72	79	OMIT TED	NOT REACH ED	V1	1.GIRL %Right	2.BOY %Right
Armenia	2003	169	18.6	35.3	19.6	1.2	0.4	0.0	0.4	0.0	24.5	0.0	0.0	75.1	71.5	80.9
	2007	676	11.4	21.5	9.1	2.7	2.8	5.3	1.2	0.2	16.5	29.0	0.3	47.5	49.3	45.4
Australia	2003	252	19.1	16.3	19.3	1.0	0.0	6.2	2.0	1.5	34.4	0.0	0.0	55.8	50.5	60.8
	2007	572	10.2	4.5	26.1	0.7	0.0	5.8	1.0	1.7	20.7	29.2	0.1	41.6	37.2	46.0
Bahrain	2003	217	13.7	8.3	33.5	11.8	0.0	4.4	0.0	5.2	23.1	0.0	0.0	67.3	72.2	60.0
	2007	599	15.0	13.9	19.9	3.8	0.3	3.0	0.8	1.1	18.4	23.7	0.1	52.9	62.4	43.9
Botswana	2003	369	12.4	9.0	18.5	7.0	1.1	8.3	2.4	0.0	41.2	0.0	0.0	48.0	47.0	49.1
	2007	601	10.1	7.5	13.3	7.9	0.5	6.4	3.0	0.3	41.1	8.8	1.1	39.2	44.4	33.0
Bulgaria	2003	181	17.5	25.2	15.8	0.3	0.0	5.0	0.0	0.1	36.1	0.0	0.0	58.7	53.7	63.8
	2007	441	8.2	13.9	11.7	1.5	0.7	4.1	0.7	0.3	17.4	41.2	0.2	36.1	37.6	34.7
Chinese Taipei	2003	354	22.4	28.3	25.9	4.5	1.0	4.0	3.9	1.4	8.5	0.0	0.0	82.2	81.1	83.3
	2007	573	15.2	22.0	29.1	3.8	0.0	2.5	2.4	1.1	7.0	16.8	0.0	70.1	72.5	67.9
Cyprus	2003	189	9.6	16.9	32.9	4.3	6.3	11.4	3.3	0.5	14.7	0.0	0.0	70.1	68.1	72.7
	2007	622	15.2	9.1	19.7	3.1	0.2	5.0	0.6	0.3	9.3	37.3	0.2	47.3	50.9	43.8
Egypt	2003	463	12.3	20.8	14.8	4.1	0.0	5.5	0.3	3.6	38.6	0.0	0.0	52.0	57.6	46.8
	2007	937	12.8	10.1	18.8	5.8	0.3	3.3	0.1	4.5	26.3	17.7	0.2	47.8	53.7	42.1
England	2003	206	15.7	15.8	36.0	0.3	0.5	5.3	1.1	0.9	24.4	0.0	0.0	68.3	59.0	80.2
	2007	563	13.4	12.7	36.8	0.5	0.0	3.9	2.5	1.4	18.8	9.7	0.3	63.5	64.3	62.7
Ghana	2003	294	17.3	16.7	22.0	3.2	0.4	5.8	2.0	0.9	31.6	0.0	0.0	59.6	58.2	60.5
	2007	749	11.4	13.0	18.0	2.1	0.4	7.9	1.0	0.8	22.8	21.4	1.2	44.9	39.2	50.0
Hong Kong SAR	2003	386	29.2	28.4	28.5	3.5	0.0	5.5	0.9	0.8	3.2	0.0	0.0	89.6	91.1	88.1
	2007	498	21.3	25.4	33.1	2.5	0.2	2.8	1.0	1.5	4.5	7.3	0.4	82.6	86.0	79.1
Hungary	2003	198	15.3	16.4	29.4	1.4	0.0	7.2	4.3	1.0	25.0	0.0	0.0	62.4	62.8	62.2
	2007	588	8.9	12.4	17.2	1.4	0.7	2.8	1.1	7.5	12.0	35.8	0.3	40.6	40.9	40.4
Indonesia	2003	367	14.6	15.9	25.1	1.9	0.2	5.4	1.5	1.1	34.3	0.0	0.0	57.7	56.6	58.7
	2007	594	10.8	13.3	21.9	1.8	0.2	3.7	0.8	1.1	35.5	10.6	0.3	48.0	51.8	44.2
Iran, Islamic Rep. of	2003	175	10.8	8.9	14.7	2.9	0.4	5.9	3.9	6.7	45.8	0.0	0.0	37.7	43.4	33.5
	2007	557	5.2	3.1	9.7	1.0	0.9	1.7	0.2	5.5	17.1	55.7	0.1	19.8	19.3	20.2
Israel	2003	179	6.2	25.8	31.0	3.2	0.0	4.4	3.9	2.7	22.7	0.0	0.0	66.2	67.1	65.5
	2007	465	6.5	6.7	14.2	1.8	0.0	2.0	0.8	1.2	19.5	47.0	0.4	29.2	29.4	29.0
Italy	2003	193	14.1	28.9	22.2	2.1	0.9	9.0	3.7	2.2	16.9	0.0	0.0	68.2	68.8	67.6
	2007	637	10.9	16.5	17.0	1.0	0.1	5.0	0.8	1.0	14.9	32.3	0.6	45.5	46.1	44.9
Japan	2003	343	22.8	31.4	29.3	0.9	0.0	4.0	3.3	0.3	8.1	0.0	0.0	84.4	82.9	85.8
	2007	615	23.1	26.8	27.2	2.3	0.0	4.6	1.7	0.4	6.2	7.8	0.0	79.4	80.1	78.7
Jordan	2003	320	17.5	18.0	23.3	3.1	0.3	5.9	1.0	1.0	29.8	0.0	0.0	62.2	68.4	55.6
	2007	749	16.8	16.8	20.3	6.0	0.0	4.3	1.9	1.4	21.9	10.5	0.0	59.9	66.3	54.1
Korea, Rep. of	2003	354	23.2	23.1	23.1	3.3	0.0	7.4	2.7	1.1	16.0	0.0	0.0	72.7	72.4	72.9
	2007	604	16.9	19.5	32.4	2.1	0.0	5.5	3.8	0.5	10.2	9.1	0.0	70.9	70.0	71.7
Lebanon	2003	197	17.7	12.9	27.6	3.1	8.4	4.8	0.9	1.5	23.1	0.0	0.0	69.7	75.0	61.9
	2007	538	9.5	8.5	21.2	1.6	0.0	4.0	3.5	5.9	11.9	33.1	0.7	40.8	43.8	37.5

V1 = Percent scoring 1 or better V2 = Percent scoring 2 or better
 Percent right for boys and girls corresponds to the percent obtaining the maximum score on the item.
 Because of missing gender information, some totals may appear inconsistent.

Science: Biology / Knowing (S032310B - S07_03B)
 Label: Factors for photosynthesis
 Type: CR Key: -

COUNTRY	Year	N	10	11	12	13	19	70	71	72	79	OMIT TED	NOT REACH ED	V1	1.GIRL %Right	2.BOY %Right
Lithuania	2003	228	14.7	22.0	22.2	3.4	2.3	8.4	0.6	0.4	26.0	0.0	0.0	64.7	61.7	67.9
	2007	574	10.2	15.5	14.7	0.9	0.0	4.6	0.2	0.8	17.4	35.4	0.1	41.4	42.2	40.6
Malaysia	2003	339	19.8	19.7	28.9	3.4	0.7	1.6	0.9	2.5	22.6	0.0	0.0	72.5	71.3	73.6
	2007	641	13.8	14.5	20.8	3.4	1.4	3.6	0.6	1.3	26.3	14.0	0.3	53.9	54.8	52.9
Norway	2003	206	13.9	8.0	22.3	3.0	0.3	7.8	2.3	0.5	41.9	0.0	0.0	47.6	45.1	49.9
	2007	662	10.5	7.1	18.7	0.7	0.0	5.1	1.7	1.1	20.8	34.0	0.3	36.9	40.9	33.2
Palestinian Nat'l Auth.	2003	369	20.8	10.8	31.0	9.4	0.0	5.6	0.9	1.3	20.3	0.0	0.0	72.0	76.4	66.3
	2007	605	14.7	9.4	21.3	7.1	0.9	4.1	0.8	1.5	26.0	14.3	0.1	53.3	59.5	46.8
Romania	2003	190	9.5	17.4	15.9	4.4	1.9	10.7	2.9	2.6	34.8	0.0	0.0	49.1	49.9	48.1
	2007	594	11.8	6.8	12.7	1.3	3.2	1.8	1.3	2.0	26.0	33.1	0.1	35.8	37.0	34.7
Russian Federation	2003	227	10.1	32.0	21.5	2.5	0.0	5.0	1.5	1.4	25.9	0.0	0.0	66.1	61.9	69.8
	2007	640	7.3	16.1	21.3	1.7	0.0	5.5	0.6	0.3	16.1	31.0	0.3	46.3	47.9	44.7
Scotland	2003	189	19.1	8.8	25.2	2.7	0.0	5.3	2.8	2.4	33.6	0.0	0.0	55.9	58.7	53.5
	2007	594	11.9	4.3	23.1	0.4	0.0	3.8	3.8	0.5	20.3	31.8	0.2	39.7	39.5	39.9
Serbia	2003	181	18.2	14.0	29.8	6.6	5.6	3.1	0.7	0.0	21.9	0.0	0.0	74.2	75.9	72.8
	2007	569	10.7	8.8	27.2	1.2	1.4	2.0	0.1	1.7	13.5	33.4	0.0	49.4	52.9	46.2
Singapore	2003	467	18.6	36.4	32.3	0.6	0.0	2.1	0.0	0.0	10.0	0.0	0.0	87.9	86.6	89.2
	2007	649	19.6	32.4	29.1	1.3	0.1	2.1	1.8	0.3	8.7	4.6	0.0	82.5	83.1	81.8
Slovenia	2003	251	19.2	22.5	20.2	3.4	0.5	3.2	3.9	1.4	25.8	0.0	0.0	65.7	66.0	65.4
	2007	590	18.4	19.5	25.5	0.8	0.0	2.5	3.4	0.2	22.7	7.1	0.0	64.1	64.4	63.8
Sweden	2003	238	15.3	17.5	27.3	0.5	0.0	6.8	4.7	0.7	27.2	0.0	0.0	60.6	58.6	62.4
	2007	741	12.2	12.4	22.1	0.1	0.9	5.0	2.8	1.6	15.5	27.0	0.4	47.8	48.2	47.4
Tunisia	2003	302	16.9	26.5	7.9	7.9	2.1	8.9	6.5	0.0	23.3	0.0	0.0	61.3	58.1	65.1
	2007	565	17.9	20.5	3.9	5.2	0.0	4.8	2.0	1.0	25.2	19.0	0.3	47.5	46.1	48.9
United States	2003	607	11.8	13.7	32.9	1.4	0.1	8.7	6.6	2.1	22.6	0.0	0.0	60.0	60.3	59.6
	2007	1047	11.6	8.6	33.9	1.7	0.0	4.5	3.8	2.6	17.6	15.5	0.2	55.9	57.3	54.5
International Avg.	2003	279	16.3	19.8	24.5	3.4	1.0	5.8	2.3	1.4	25.4	0.0	0.0	65.0	64.8	65.3
	2007	626	12.8	13.7	20.9	2.4	0.5	4.0	1.6	1.6	18.4	23.8	0.3	50.4	52.1	48.6
Basque Country, Spain	2003	120	16.1	14.7	28.5	0.9	5.5	6.7	3.2	3.7	20.6	0.0	0.0	65.8	55.5	75.7
	2007	329	13.8	12.3	24.7	0.4	3.8	2.1	0.3	0.4	17.6	24.0	0.7	55.0	55.1	54.9
Ontario, Canada	2003	237	15.9	8.9	37.9	3.4	0.0	5.6	0.5	2.5	25.3	0.0	0.0	66.0	68.6	63.5
	2007	486	13.9	3.4	30.4	0.9	2.6	4.8	0.2	6.5	14.7	22.4	0.2	51.2	49.6	52.9
Quebec, Canada	2003	286	19.8	10.9	31.3	3.7	0.4	6.2	1.3	0.5	25.9	0.0	0.0	66.1	62.9	68.9
	2007	564	9.9	8.9	22.1	1.1	0.9	3.5	2.1	3.0	20.2	28.5	0.0	42.8	45.8	39.8

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Science: Biology / Knowing (S032310D - S07_03D)
 Label: Factors for photosynthesis/DERIVED
 Type: CR Key: -

COUNTRY	Year	N	20	10	70	OMIT TED	NOT REACH ED	V1	V2	1.GIRL %Right	2.BOY %Right
Armenia	2003	197	54.0	39.7	6.3	0.0	0.0	93.7	54.0	56.0	51.1
	2007	676	41.3	26.0	9.3	23.2	0.3	67.2	41.3	43.0	39.2
Australia	2003	285	39.7	38.2	22.1	0.0	0.0	77.9	39.7	32.6	46.3
	2007	572	33.3	26.4	14.5	25.7	0.1	59.7	33.3	29.4	37.3
Bahrain	2003	231	58.4	27.6	14.0	0.0	0.0	86.0	58.4	61.8	53.5
	2007	599	45.6	18.3	14.3	21.7	0.1	63.9	45.6	54.2	37.4
Botswana	2003	385	35.5	29.4	35.1	0.0	0.0	64.9	35.5	31.6	39.8
	2007	601	30.4	23.2	38.6	6.8	1.1	53.5	30.4	35.5	24.1
Bulgaria	2003	212	43.7	41.9	14.3	0.0	0.0	85.7	43.7	41.0	46.4
	2007	441	29.5	29.5	6.8	34.0	0.2	59.0	29.5	28.8	30.2
Chinese Taipei	2003	380	72.6	19.9	7.5	0.0	0.0	92.5	72.6	70.6	74.5
	2007	573	65.6	15.2	8.8	10.5	0.0	80.7	65.6	66.5	64.7
Cyprus	2003	214	54.9	32.6	12.5	0.0	0.0	87.5	54.9	51.7	59.1
	2007	622	43.1	22.1	6.5	28.0	0.2	65.3	43.1	45.7	40.5
Egypt	2003	515	37.8	34.5	27.6	0.0	0.0	72.4	37.8	43.5	33.0
	2007	937	41.8	21.5	24.9	11.5	0.2	63.3	41.8	46.1	37.8
England	2003	224	55.8	37.8	6.4	0.0	0.0	93.6	55.8	48.3	65.1
	2007	563	57.2	26.9	9.2	6.3	0.3	84.2	57.2	59.6	55.1
Ghana	2003	309	45.4	25.0	29.6	0.0	0.0	70.4	45.4	41.8	47.8
	2007	749	37.4	25.4	18.1	17.9	1.2	62.8	37.4	32.1	42.1
Hong Kong SAR	2003	391	85.1	13.1	1.8	0.0	0.0	98.2	85.1	86.5	83.6
	2007	498	81.4	9.8	1.9	6.4	0.4	91.2	81.4	84.7	78.1
Hungary	2003	221	46.6	45.0	8.4	0.0	0.0	91.6	46.6	44.3	48.2
	2007	588	36.1	30.6	7.3	25.7	0.3	66.8	36.1	35.1	37.0
Indonesia	2003	392	48.1	29.4	22.5	0.0	0.0	77.5	48.1	43.6	52.6
	2007	594	43.4	25.2	23.7	7.4	0.3	68.6	43.4	46.9	39.9
Iran, Islamic Rep. of	2003	214	23.4	41.8	34.8	0.0	0.0	65.2	23.4	26.4	21.1
	2007	557	14.3	15.7	19.8	50.2	0.1	29.9	14.3	13.6	14.7
Israel	2003	201	54.1	34.3	11.6	0.0	0.0	88.4	54.1	51.5	56.5
	2007	465	24.2	18.8	13.3	43.4	0.4	42.9	24.2	24.3	23.9
Italy	2003	236	48.4	43.8	7.8	0.0	0.0	92.2	48.4	47.6	49.2
	2007	637	38.6	29.1	8.1	23.7	0.6	67.7	38.6	39.4	37.8
Japan	2003	363	75.5	19.1	5.4	0.0	0.0	94.6	75.5	71.8	79.3
	2007	615	75.0	17.1	2.9	5.0	0.0	92.1	75.0	75.9	74.1
Jordan	2003	333	53.7	28.0	18.3	0.0	0.0	81.7	53.7	57.7	49.5
	2007	749	53.8	23.6	15.2	7.3	0.0	77.5	53.8	58.0	50.1
Korea, Rep. of	2003	389	60.9	25.8	13.3	0.0	0.0	86.7	60.9	58.8	62.9
	2007	604	65.3	19.1	8.3	7.2	0.0	84.4	65.3	63.0	67.4
Lebanon	2003	215	55.8	29.1	15.0	0.0	0.0	85.0	55.8	57.7	53.2
	2007	538	35.1	22.9	12.2	29.1	0.7	58.0	35.1	37.9	31.9

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 Percent right for boys and girls corresponds to the percent obtaining the maximum score on the item.
 Because of missing gender information, some totals may appear inconsistent.

Science: Biology / Knowing (S032310D - S07_03D)
 Label: Factors for photosynthesis/DERIVED
 Type: CR Key: -

COUNTRY	Year	N	20	10	70	OMIT TED	NOT REACH ED	V1	V2	1.GIRL %Right	2.BOY %Right
Lithuania	2003	268	49.8	41.8	8.4	0.0	0.0	91.6	49.8	47.7	52.0
	2007	574	35.7	27.6	10.4	26.2	0.1	63.3	35.7	36.7	34.6
Malaysia	2003	369	60.3	18.7	21.0	0.0	0.0	79.0	60.3	58.2	62.3
	2007	641	47.8	17.0	24.4	10.5	0.3	64.8	47.8	49.4	46.0
Norway	2003	236	35.1	29.4	35.5	0.0	0.0	64.5	35.1	34.6	35.5
	2007	662	29.6	27.3	16.7	26.0	0.3	56.9	29.6	33.9	25.7
Palestinian Nat'l Auth.	2003	381	57.5	25.8	16.7	0.0	0.0	83.3	57.5	61.9	52.0
	2007	605	45.2	21.9	21.7	11.1	0.1	67.1	45.2	51.6	38.5
Romania	2003	223	34.8	50.1	15.1	0.0	0.0	84.9	34.8	38.1	31.1
	2007	594	30.7	28.6	13.6	27.0	0.1	59.3	30.7	32.0	29.6
Russian Federation	2003	286	48.3	45.8	5.8	0.0	0.0	94.2	48.3	41.0	55.7
	2007	640	42.7	27.6	5.6	23.8	0.3	70.4	42.7	43.4	42.0
Scotland	2003	211	44.5	39.1	16.5	0.0	0.0	83.5	44.5	45.1	43.9
	2007	594	32.9	29.6	11.0	26.3	0.2	62.5	32.9	30.8	35.4
Serbia	2003	212	54.6	33.3	12.1	0.0	0.0	87.9	54.6	55.0	54.3
	2007	569	45.1	23.2	5.8	25.9	0.0	68.3	45.1	47.8	42.8
Singapore	2003	473	81.9	12.2	5.9	0.0	0.0	94.1	81.9	79.0	85.0
	2007	649	76.3	15.1	5.1	3.5	0.0	91.4	76.3	78.3	74.1
Slovenia	2003	272	50.3	44.0	5.8	0.0	0.0	94.2	50.3	47.9	53.0
	2007	590	54.9	35.4	4.9	4.8	0.0	90.3	54.9	55.9	53.7
Sweden	2003	263	43.0	35.8	21.2	0.0	0.0	78.8	43.0	39.4	46.3
	2007	741	39.2	26.2	12.5	21.7	0.4	65.4	39.2	40.6	37.8
Tunisia	2003	328	41.9	41.4	16.7	0.0	0.0	83.3	41.9	38.7	45.7
	2007	565	34.7	34.8	15.5	14.6	0.3	69.5	34.7	32.4	37.0
United States	2003	641	48.8	36.0	15.3	0.0	0.0	84.7	48.8	47.9	49.8
	2007	1047	49.1	29.6	9.0	12.1	0.2	78.6	49.1	49.2	49.0
International Avg.	2003	305	51.5	33.0	15.5	0.0	0.0	84.5	51.5	50.3	52.7
	2007	626	44.1	24.0	12.7	18.9	0.3	68.1	44.1	45.5	42.7
Basque Country, Spain	2003	144	48.9	33.3	17.8	0.0	0.0	82.2	48.9	37.3	61.4
	2007	329	43.4	30.8	7.1	18.0	0.7	74.2	43.4	40.7	45.9
Ontario, Canada	2003	262	54.1	28.5	17.4	0.0	0.0	82.6	54.1	54.9	53.3
	2007	486	46.3	22.8	12.5	18.2	0.2	69.1	46.3	44.6	48.2
Quebec, Canada	2003	301	55.1	37.2	7.6	0.0	0.0	92.4	55.1	51.8	58.0
	2007	564	37.8	24.8	17.5	19.9	0.0	62.5	37.8	40.9	34.6

V1 = Percent scoring 1 or better V2 = Percent scoring 2 or better
 Percent right for boys and girls corresponds to the percent obtaining the maximum score on the item.
 Because of missing gender information, some totals may appear inconsistent.

Science: Chemistry / Reasoning (S032680 - S07_04)
 Label: Identify iron, water and oxygen
 Type: CR Key: -

COUNTRY	Year	N	20	10	11	12	13	19	79	OMIT TED	NOT REACH ED	V1	V2	1.GIRL %Right	2.BOY %Right
Armenia	2003	238	71.3	0.3	1.4	9.2	2.5	0.0	15.3	0.0	0.0	84.7	71.3	68.1	75.5
	2007	676	26.0	35.5	0.7	3.5	1.6	2.5	14.4	15.4	0.3	69.9	26.0	27.0	24.8
Australia	2003	378	60.2	1.2	3.1	13.7	5.8	0.0	15.9	0.0	0.0	84.1	60.2	53.5	67.1
	2007	572	56.3	0.4	2.9	16.3	6.9	0.0	12.7	4.5	0.1	82.8	56.3	51.9	60.7
Bahrain	2003	287	30.9	1.6	4.3	32.9	1.4	1.4	27.5	0.0	0.0	72.5	30.9	23.5	40.1
	2007	599	23.9	10.7	6.0	28.9	3.4	1.0	17.3	8.7	0.1	73.9	23.9	29.2	18.9
Botswana	2003	415	33.4	0.4	3.9	10.0	6.9	4.0	41.4	0.0	0.0	58.6	33.4	32.3	34.5
	2007	600	33.9	0.2	7.0	10.7	8.4	0.7	34.3	3.2	1.6	60.9	33.9	37.3	29.8
Bulgaria	2003	257	48.2	18.4	0.2	8.9	3.0	0.0	21.3	0.0	0.0	78.7	48.2	53.3	42.7
	2007	441	49.9	1.0	3.6	8.4	1.5	0.1	14.8	20.7	0.2	64.4	49.9	48.8	50.9
Chinese Taipei	2003	413	74.3	0.3	2.8	15.4	0.7	0.0	6.6	0.0	0.0	93.4	74.3	73.9	74.8
	2007	573	67.9	0.4	3.7	10.5	3.5	0.0	8.5	5.5	0.0	86.1	67.9	65.4	70.2
Cyprus	2003	270	41.1	0.9	8.8	18.2	9.7	0.0	21.3	0.0	0.0	78.7	41.1	41.5	40.7
	2007	622	46.3	0.0	7.1	8.4	9.2	1.0	17.0	10.8	0.2	72.0	46.3	45.9	46.7
Egypt	2003	546	38.2	1.4	4.4	13.0	4.4	0.2	38.4	0.0	0.0	61.6	38.2	36.2	39.9
	2007	938	23.5	1.4	4.9	9.3	3.3	0.4	42.3	14.7	0.2	42.8	23.5	26.2	20.9
England	2003	226	68.4	0.7	1.3	16.5	6.7	0.3	6.0	0.0	0.0	94.0	68.4	62.0	76.1
	2007	563	67.6	0.8	1.9	16.4	3.6	0.3	6.2	2.9	0.3	90.5	67.6	64.8	70.2
Ghana	2003	336	13.7	0.7	5.8	7.1	4.2	0.0	68.5	0.0	0.0	31.5	13.7	11.4	15.4
	2007	749	17.3	1.1	7.3	4.9	6.0	0.6	42.4	19.1	1.3	37.2	17.3	16.9	17.7
Hong Kong SAR	2003	408	69.4	1.6	3.2	11.9	3.8	0.2	9.8	0.0	0.0	90.2	69.4	70.2	68.6
	2007	498	65.0	1.5	4.6	10.2	2.7	0.0	10.4	5.1	0.4	84.1	65.0	65.8	64.1
Hungary	2003	267	66.8	2.0	4.3	13.1	3.0	0.0	10.7	0.0	0.0	89.3	66.8	56.5	74.5
	2007	588	64.7	0.7	2.7	8.6	3.5	0.0	15.2	4.3	0.3	80.3	64.7	62.1	66.9
Indonesia	2003	390	27.4	1.2	5.0	20.0	4.4	0.0	42.0	0.0	0.0	58.0	27.4	25.8	29.2
	2007	594	25.7	1.0	4.8	13.4	2.5	0.2	40.9	11.2	0.3	47.6	25.7	25.2	26.2
Iran, Islamic Rep. of	2003	370	45.2	2.6	6.7	18.8	8.9	0.3	17.7	0.0	0.0	82.3	45.2	41.2	48.0
	2007	557	35.5	0.5	7.5	20.3	8.4	0.5	21.7	5.2	0.5	72.7	35.5	33.2	37.3
Israel	2003	324	58.1	1.2	2.5	24.8	4.5	0.0	8.9	0.0	0.0	91.1	58.1	52.8	64.1
	2007	465	46.8	1.1	3.3	26.5	2.1	0.0	10.0	9.8	0.4	79.8	46.8	44.7	49.2
Italy	2003	316	42.2	3.7	7.3	23.0	3.7	2.3	17.8	0.0	0.0	82.2	42.2	34.7	49.7
	2007	637	44.6	2.1	7.6	13.6	3.4	0.0	19.2	8.8	0.7	71.3	44.6	39.5	49.4
Japan	2003	385	73.3	0.0	6.4	9.2	1.9	0.0	9.1	0.0	0.0	90.9	73.3	70.4	76.3
	2007	615	75.2	1.7	2.4	9.6	1.4	0.0	6.9	2.7	0.0	90.4	75.2	77.2	73.2
Jordan	2003	356	33.2	0.5	6.2	25.6	3.4	0.0	31.1	0.0	0.0	68.9	33.2	35.2	31.2
	2007	749	46.5	3.0	4.5	20.5	2.6	0.0	20.0	2.7	0.2	77.1	46.5	52.3	41.2
Korea, Rep. of	2003	423	69.2	1.6	0.7	10.8	6.2	0.0	11.5	0.0	0.0	88.5	69.2	69.8	68.7
	2007	604	71.9	0.6	2.1	6.9	6.3	0.0	9.7	2.5	0.0	87.8	71.9	68.5	75.2
Lebanon	2003	273	48.4	1.5	4.1	14.6	3.7	0.0	27.7	0.0	0.0	72.3	48.4	47.4	49.7
	2007	538	39.6	1.6	4.4	11.9	4.4	0.1	23.3	13.5	1.1	62.0	39.6	37.7	41.6

V1 = Percent scoring 1 or better V2 = Percent scoring 2 or better
 Percent right for boys and girls corresponds to the percent obtaining the maximum score on the item.
 Because of missing gender information, some totals may appear inconsistent.

Science: Chemistry / Reasoning (S032680 - S07_04)
 Label: Identify iron, water and oxygen
 Type: CR Key: -

COUNTRY	Year	N	20	10	11	12	13	19	79	OMIT TED	NOT REACH ED	V1	V2	1.GIRL %Right	2.BOY %Right
Lithuania	2003	362	56.1	0.5	2.9	22.7	4.3	0.2	13.2	0.0	0.0	86.8	56.1	52.9	59.4
	2007	574	55.4	1.7	5.9	17.3	2.7	0.0	12.7	4.1	0.1	83.0	55.4	49.6	61.5
Malaysia	2003	417	71.1	1.3	2.0	11.8	3.6	0.2	9.9	0.0	0.0	90.1	71.1	69.0	73.1
	2007	641	48.2	2.2	3.4	19.7	5.7	0.4	17.4	2.7	0.3	79.7	48.2	49.9	46.1
Norway	2003	323	66.1	0.2	4.8	7.4	9.1	0.0	12.4	0.0	0.0	87.6	66.1	57.3	75.2
	2007	662	65.8	0.6	3.9	6.4	9.1	0.3	9.9	3.4	0.5	86.2	65.8	61.7	69.6
Palestinian Nat'l Auth.	2003	410	27.5	3.4	4.5	26.6	2.2	0.7	35.1	0.0	0.0	64.9	27.5	27.5	27.6
	2007	605	30.3	0.2	4.5	21.0	3.2	0.0	34.9	5.7	0.1	59.2	30.3	34.4	26.1
Romania	2003	289	51.3	2.9	4.5	16.3	7.3	0.9	16.8	0.0	0.0	83.2	51.3	50.7	52.1
	2007	595	44.6	4.0	3.9	16.0	2.8	0.0	19.2	9.4	0.1	71.4	44.6	44.2	44.9
Russian Federation	2003	368	67.3	0.8	2.1	12.7	3.0	0.2	13.9	0.0	0.0	86.1	67.3	64.8	69.9
	2007	640	65.6	0.9	3.5	8.4	3.1	0.0	10.1	8.2	0.3	81.5	65.6	63.7	67.6
Scotland	2003	281	68.0	1.8	3.6	10.1	4.2	0.4	11.9	0.0	0.0	88.1	68.0	71.3	65.1
	2007	594	53.6	0.9	2.6	18.4	7.3	0.4	11.6	5.0	0.2	83.2	53.6	49.5	58.3
Serbia	2003	295	59.0	1.9	4.0	15.8	4.8	0.0	14.5	0.0	0.0	85.5	59.0	53.7	64.0
	2007	569	53.5	1.5	4.5	8.4	5.1	0.3	11.8	15.0	0.0	73.2	53.5	48.4	58.1
Singapore	2003	488	72.4	1.2	1.7	13.2	4.9	0.0	6.7	0.0	0.0	93.3	72.4	73.4	71.4
	2007	649	69.0	1.5	2.5	9.7	4.4	0.0	11.2	1.8	0.0	87.0	69.0	70.9	67.0
Slovenia	2003	289	61.6	1.5	3.7	14.2	5.5	0.0	13.5	0.0	0.0	86.5	61.6	55.1	69.1
	2007	590	68.9	1.1	3.4	13.0	4.1	0.0	8.5	1.1	0.0	90.4	68.9	62.1	76.5
Sweden	2003	339	78.9	1.2	2.2	5.3	4.6	0.3	7.5	0.0	0.0	92.5	78.9	74.5	82.9
	2007	741	70.8	0.6	1.8	6.4	6.9	0.0	8.7	4.5	0.4	86.5	70.8	68.5	72.9
Tunisia	2003	343	19.9	4.0	8.0	34.8	2.4	0.0	30.9	0.0	0.0	69.1	19.9	21.2	18.3
	2007	565	24.9	0.5	9.0	29.2	2.6	1.0	25.5	6.5	0.8	67.2	24.9	23.8	26.0
United States	2003	728	43.5	3.3	5.9	22.7	5.6	0.0	19.1	0.0	0.0	80.9	43.5	37.9	50.0
	2007	1047	44.3	0.2	4.7	25.5	6.1	0.0	17.2	1.9	0.2	80.7	44.3	41.0	47.4
International Avg.	2003	358	53.2	2.0	4.0	16.1	4.5	0.4	19.8	0.0	0.0	80.2	53.2	50.6	55.9
	2007	626	49.2	2.5	4.3	13.9	4.5	0.3	17.8	7.3	0.3	74.6	49.2	48.1	50.2
Basque Country, Spain	2003	198	46.8	0.5	9.6	19.8	5.2	0.0	18.0	0.0	0.0	82.0	46.8	41.7	52.0
	2007	329	38.7	5.0	7.9	20.5	6.8	0.0	14.4	5.9	0.7	79.0	38.7	37.5	39.9
Ontario, Canada	2003	347	57.1	1.3	4.9	12.2	8.5	0.1	15.9	0.0	0.0	84.1	57.1	51.8	62.7
	2007	486	53.9	1.0	3.6	12.6	11.2	0.1	14.7	2.7	0.2	82.3	53.9	52.6	55.2
Quebec, Canada	2003	350	66.1	2.5	4.0	8.5	7.2	0.4	11.4	0.0	0.0	88.6	66.1	61.4	70.3
	2007	564	52.2	1.1	8.4	7.2	7.8	0.2	19.5	3.6	0.0	76.9	52.2	48.2	56.3

V1 = Percent scoring 1 or better V2 = Percent scoring 2 or better
 Percent right for boys and girls corresponds to the percent obtaining the maximum score on the item.
 Because of missing gender information, some totals may appear inconsistent.

Science: Chemistry / Knowing (S032672 - S07_05)
 Label: Example of acidic solution
 Type: MC Key: B

COUNTRY	Year	N	DIFF	A	B	C	D	OMIT TED	NOT REACH ED	1.GIRL %Right	2.BOY %Right
Armenia	2003	351	29.3	41.7	29.3	14.5	14.5	0.0	0.0	32.4	25.7
	2007	667	34.6	22.4	34.6	18.8	17.9	5.9	0.3	33.7	35.7
Australia	2003	395	53.9	36.5	53.9	2.4	7.2	0.0	0.0	45.8	62.1
	2007	572	52.1	37.9	52.1	3.0	5.7	1.2	0.1	56.4	47.7
Bahrain	2003	331	78.7	5.6	78.7	4.4	11.3	0.0	0.0	85.8	71.4
	2007	599	79.1	6.4	79.1	1.9	11.6	0.9	0.1	85.3	73.2
Botswana	2003	428	61.3	16.1	61.3	11.8	10.7	0.0	0.0	63.5	59.0
	2007	601	59.1	18.5	59.1	10.6	8.2	1.1	2.5	65.8	51.1
Bulgaria	2003	310	48.6	42.9	48.6	1.5	7.0	0.0	0.0	47.8	49.3
	2007	441	49.7	40.9	49.7	1.2	5.9	2.1	0.2	47.2	52.2
Chinese Taipei	2003	440	87.2	9.8	87.2	0.7	2.3	0.0	0.0	88.7	85.9
	2007	573	88.2	8.6	88.2	1.2	1.6	0.4	0.0	89.8	86.7
Cyprus	2003	322	79.6	8.7	79.6	2.3	9.4	0.0	0.0	77.7	81.4
	2007	622	58.5	8.3	58.5	5.4	26.0	1.6	0.2	57.1	59.8
Egypt	2003	580	48.6	9.2	48.6	17.0	25.1	0.0	0.0	54.3	43.6
	2007	933	61.6	5.1	61.6	13.9	17.3	1.9	0.2	66.5	56.8
England	2003	233	74.7	19.7	74.7	1.0	4.6	0.0	0.0	73.5	76.2
	2007	563	73.1	18.2	73.1	1.9	5.6	0.9	0.3	75.4	71.0
Ghana	2003	417	44.1	13.9	44.1	18.2	23.8	0.0	0.0	42.6	45.3
	2007	749	37.5	9.8	37.5	17.9	30.7	2.2	1.7	35.7	39.2
Hong Kong SAR	2003	418	84.5	10.7	84.5	2.7	2.1	0.0	0.0	84.6	84.4
	2007	498	83.1	10.7	83.1	2.4	2.3	1.0	0.4	87.7	78.5
Hungary	2003	269	63.5	24.1	63.5	2.3	10.0	0.0	0.0	57.6	67.9
	2007	588	57.8	25.1	57.8	0.5	13.7	2.6	0.3	56.4	59.1
Indonesia	2003	482	74.0	5.6	74.0	4.3	16.1	0.0	0.0	76.6	71.5
	2007	594	78.7	3.6	78.7	3.9	13.2	0.3	0.3	81.2	76.3
Iran, Islamic Rep. of	2003	413	48.5	44.2	48.5	3.4	3.8	0.0	0.0	46.5	49.9
	2007	557	57.4	35.7	57.4	1.4	4.0	1.1	0.5	53.8	60.2
Israel	2003	342	40.1	24.3	40.1	17.1	18.5	0.0	0.0	41.1	38.9
	2007	465	38.2	25.1	38.2	17.5	13.2	5.6	0.4	37.8	38.7
Italy	2003	355	35.7	60.1	35.7	1.1	3.1	0.0	0.0	37.3	34.1
	2007	636	32.7	61.7	32.7	1.1	2.9	0.9	0.7	33.6	31.9
Japan	2003	398	46.8	32.8	46.8	7.4	13.0	0.0	0.0	43.5	50.2
	2007	615	54.2	27.5	54.2	5.5	11.9	1.0	0.0	53.5	54.9
Jordan	2003	378	57.5	12.2	57.5	7.3	23.0	0.0	0.0	62.3	53.0
	2007	749	60.9	13.3	60.9	4.7	19.9	1.0	0.2	65.5	56.8
Korea, Rep. of	2003	439	53.2	40.8	53.2	1.6	4.4	0.0	0.0	53.3	53.1
	2007	604	59.2	36.1	59.2	1.9	2.1	0.7	0.0	58.7	59.8
Lebanon	2003	318	68.9	23.8	68.9	3.3	4.1	0.0	0.0	77.0	59.0
	2007	526	72.4	15.3	72.4	4.5	5.8	0.9	1.2	75.6	68.7

DIFF = Percent correct
 Because of missing gender information, some totals may appear inconsistent.

Science: Chemistry / Knowing (S032672 - S07_05)
 Label: Example of acidic solution
 Type: MC Key: B

COUNTRY	Year	N	DIFF	A	B	C	D	OMIT TED	NOT REACH ED	1.GIRL %Right	2.BOY %Right
Lithuania	2003	378	78.1	17.0	78.1	0.8	4.1	0.0	0.0	87.3	69.4
	2007	574	65.9	25.9	65.9	0.5	6.4	1.1	0.1	65.2	66.8
Malaysia	2003	432	78.4	13.2	78.4	2.1	6.3	0.0	0.0	79.9	77.0
	2007	641	69.5	17.8	69.5	2.6	9.7	0.1	0.3	72.9	65.5
Norway	2003	334	78.6	9.3	78.6	2.3	9.7	0.0	0.0	77.9	79.3
	2007	662	76.3	7.9	76.3	3.2	10.2	1.8	0.5	80.7	72.3
Palestinian Nat'l Auth.	2003	424	65.4	9.4	65.4	6.8	18.4	0.0	0.0	70.3	59.5
	2007	604	59.2	11.5	59.2	9.8	18.1	1.3	0.1	59.6	58.8
Romania	2003	325	48.9	41.7	48.9	3.1	6.2	0.0	0.0	50.9	47.0
	2007	595	47.5	37.9	47.5	4.4	9.1	1.0	0.1	44.8	49.9
Russian Federation	2003	388	76.0	15.3	76.0	2.3	6.3	0.0	0.0	71.4	80.5
	2007	640	73.5	14.8	73.5	3.3	6.7	1.4	0.5	73.9	73.0
Scotland	2003	289	66.1	23.8	66.1	2.3	7.9	0.0	0.0	61.7	70.0
	2007	594	66.1	24.2	66.1	1.8	6.5	1.2	0.2	63.5	69.0
Serbia	2003	342	72.7	13.6	72.7	6.5	7.1	0.0	0.0	67.2	77.7
	2007	569	68.2	14.5	68.2	3.6	12.1	1.7	0.0	66.8	69.4
Singapore	2003	493	56.6	31.8	56.6	2.7	8.8	0.0	0.0	55.5	57.8
	2007	649	57.4	30.4	57.4	4.4	7.8	0.0	0.0	53.7	61.2
Slovenia	2003	302	83.8	5.1	83.8	4.1	7.0	0.0	0.0	81.7	86.0
	2007	590	75.3	10.9	75.3	1.0	10.8	2.0	0.0	73.5	77.3
Sweden	2003	348	80.6	7.9	80.6	2.1	9.5	0.0	0.0	79.6	81.4
	2007	740	79.4	8.0	79.4	1.9	9.9	0.4	0.4	83.2	75.7
Tunisia	2003	387	62.9	14.7	62.9	6.0	16.4	0.0	0.0	67.4	57.1
	2007	565	45.9	33.5	45.9	3.7	12.8	3.0	1.2	41.6	50.1
United States	2003	748	46.9	43.7	46.9	3.7	5.6	0.0	0.0	42.5	51.9
	2007	1047	45.1	43.8	45.1	3.4	6.9	0.7	0.2	46.2	44.1
International Avg.	2003	388	62.8	22.1	62.8	5.1	9.9	0.0	0.0	63.2	62.3
	2007	625	61.1	21.5	61.1	4.9	10.5	1.5	0.4	61.9	60.3
Basque Country, Spain	2003	207	28.4	53.2	28.4	4.8	13.5	0.0	0.0	26.5	30.3
	2007	329	31.4	46.3	31.4	5.2	14.1	2.3	0.7	32.0	30.8
Ontario, Canada	2003	353	51.4	40.4	51.4	3.5	4.7	0.0	0.0	49.4	53.6
	2007	486	53.7	36.9	53.7	1.7	5.3	2.2	0.2	47.8	59.9
Quebec, Canada	2003	360	59.7	38.6	59.7	0.3	1.5	0.0	0.0	63.1	56.7
	2007	564	62.0	32.1	62.0	1.1	4.0	0.7	0.0	62.5	61.6

DIFF = Percent correct
 Because of missing gender information, some totals may appear inconsistent.

Science: Physics / Applying (S032392 - S07_06)

Label: Diagram of a person doing work

Type: MC Key: C

COUNTRY	Year	N	DIFF	A	B	C	D	OMIT TED	NOT REACH ED	1.GIRL %Right	2.BOY %Right
Armenia	2003	387	92.8	1.2	4.1	92.8	1.9	0.0	0.0	95.9	89.1
	2007	664	79.5	3.2	6.3	79.5	1.7	9.0	0.3	77.1	82.5
Australia	2003	393	87.6	2.4	4.6	87.6	5.4	0.0	0.0	85.9	89.2
	2007	569	85.9	4.4	3.4	85.9	3.7	2.6	0.1	87.0	84.7
Bahrain	2003	320	72.2	11.4	10.8	72.2	5.5	0.0	0.0	73.5	70.8
	2007	599	70.3	10.4	7.7	70.3	8.2	3.3	0.1	76.3	64.7
Botswana	2003	427	70.1	5.4	6.9	70.1	17.5	0.0	0.0	70.9	69.3
	2007	600	63.6	6.0	7.7	63.6	17.9	2.0	2.7	62.6	64.9
Bulgaria	2003	309	91.2	0.8	3.6	91.2	4.4	0.0	0.0	89.3	92.8
	2007	441	90.9	1.5	0.7	90.9	2.0	4.7	0.2	90.9	91.0
Chinese Taipei	2003	445	77.3	4.3	8.8	77.3	9.6	0.0	0.0	79.8	74.9
	2007	573	80.6	4.7	8.8	80.6	5.4	0.5	0.0	82.2	79.1
Cyprus	2003	322	73.7	3.8	8.7	73.7	13.9	0.0	0.0	76.5	71.0
	2007	622	72.2	6.7	8.8	72.2	10.0	2.1	0.2	74.2	70.2
Egypt	2003	577	74.9	10.8	6.7	74.9	7.6	0.0	0.0	71.1	78.1
	2007	934	69.7	15.2	8.9	69.7	4.5	1.3	0.2	68.6	70.9
England	2003	228	91.4	3.9	1.7	91.4	3.1	0.0	0.0	90.8	92.1
	2007	563	84.7	4.8	4.5	84.7	1.8	3.7	0.4	87.6	82.1
Ghana	2003	410	70.2	7.8	10.8	70.2	11.2	0.0	0.0	67.2	72.6
	2007	749	63.0	9.2	12.5	63.0	5.4	8.1	1.7	56.8	68.6
Hong Kong SAR	2003	419	73.6	7.1	10.3	73.6	9.0	0.0	0.0	74.0	73.2
	2007	498	75.3	9.0	9.1	75.3	4.6	1.7	0.4	76.2	74.4
Hungary	2003	264	95.0	4.6	0.5	95.0	0.0	0.0	0.0	95.5	94.6
	2007	588	89.9	3.5	0.6	89.9	1.0	4.7	0.3	91.0	89.1
Indonesia	2003	478	89.9	4.7	2.3	89.9	3.2	0.0	0.0	90.5	89.2
	2007	594	86.4	5.6	3.9	86.4	1.6	2.2	0.3	86.4	86.4
Iran, Islamic Rep. of	2003	403	88.3	4.7	2.4	88.3	4.6	0.0	0.0	90.4	86.9
	2007	557	86.2	4.3	3.7	86.2	2.3	3.0	0.5	89.4	83.7
Israel	2003	337	82.0	7.4	5.5	82.0	5.1	0.0	0.0	80.9	83.2
	2007	465	70.7	10.1	7.7	70.7	5.3	5.8	0.4	69.6	72.1
Italy	2003	343	90.5	3.1	4.2	90.5	2.2	0.0	0.0	92.4	88.7
	2007	623	86.9	4.4	5.0	86.9	2.1	0.9	0.7	85.7	88.0
Japan	2003	390	86.8	9.8	1.5	86.8	1.9	0.0	0.0	88.8	84.8
	2007	615	81.8	11.0	3.5	81.8	1.5	2.3	0.0	81.7	81.9
Jordan	2003	368	76.3	7.5	8.0	76.3	8.2	0.0	0.0	76.8	75.8
	2007	749	79.1	5.7	8.4	79.1	5.1	1.4	0.2	80.8	77.6
Korea, Rep. of	2003	438	95.8	1.1	1.9	95.8	1.2	0.0	0.0	96.1	95.5
	2007	604	90.6	2.1	4.2	90.6	2.7	0.4	0.0	89.0	92.1
Lebanon	2003	309	86.0	4.5	4.6	86.0	5.0	0.0	0.0	82.6	90.4
	2007	511	85.8	4.0	3.1	85.8	3.5	2.4	1.2	85.0	86.8

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent.

Science: Physics / Applying (S032392 - S07_06)
 Label: Diagram of a person doing work
 Type: MC Key: C

COUNTRY	Year	N	DIFF	A	B	C	D	OMIT TED	NOT REACH ED	1.GIRL %Right	2.BOY %Right
Lithuania	2003	377	91.4	3.1	3.0	91.4	2.6	0.0	0.0	89.9	92.8
	2007	574	89.1	1.7	4.2	89.1	2.6	2.2	0.1	87.4	91.0
Malaysia	2003	430	86.6	5.0	3.9	86.6	4.6	0.0	0.0	90.2	83.2
	2007	641	83.9	3.1	4.8	83.9	7.1	0.9	0.3	84.6	83.0
Norway	2003	323	82.3	7.2	2.0	82.3	8.6	0.0	0.0	81.6	82.9
	2007	662	76.3	9.2	4.2	76.3	5.6	4.2	0.5	75.7	76.9
Palestinian Nat'l Auth.	2003	422	69.8	13.4	8.5	69.8	8.3	0.0	0.0	74.6	64.1
	2007	604	64.7	9.7	11.7	64.7	10.6	3.3	0.1	67.0	62.4
Romania	2003	321	82.6	5.3	10.5	82.6	1.6	0.0	0.0	79.7	85.6
	2007	593	79.5	7.5	9.1	79.5	2.5	1.4	0.1	79.3	79.6
Russian Federation	2003	384	92.0	2.3	3.3	92.0	2.4	0.0	0.0	92.6	91.5
	2007	640	90.8	2.5	1.5	90.8	0.9	3.7	0.6	93.9	87.6
Scotland	2003	285	87.9	3.4	2.5	87.9	6.3	0.0	0.0	86.8	88.9
	2007	594	82.6	6.7	5.2	82.6	4.5	1.0	0.2	80.0	85.5
Serbia	2003	341	87.9	5.3	5.8	87.9	1.0	0.0	0.0	90.4	85.5
	2007	551	87.0	3.6	6.0	87.0	2.1	1.3	0.0	85.3	88.5
Singapore	2003	495	95.6	0.9	2.0	95.6	1.5	0.0	0.0	96.4	94.8
	2007	649	95.6	1.2	1.5	95.6	1.4	0.3	0.0	97.2	94.0
Slovenia	2003	289	92.3	2.6	2.0	92.3	3.1	0.0	0.0	91.1	93.7
	2007	590	88.3	2.0	2.3	88.3	2.5	5.0	0.0	89.7	86.8
Sweden	2003	341	85.8	6.1	2.5	85.8	5.5	0.0	0.0	86.4	85.3
	2007	740	81.9	7.2	4.0	81.9	4.6	2.0	0.4	82.4	81.5
Tunisia	2003	266	55.0	16.6	25.0	55.0	3.4	0.0	0.0	53.7	56.7
	2007	565	48.8	11.2	15.6	48.8	1.9	21.2	1.4	46.0	51.6
United States	2003	749	92.0	3.1	3.2	92.0	1.7	0.0	0.0	92.4	91.4
	2007	1047	91.4	3.0	3.9	91.4	0.6	0.8	0.3	91.1	91.8
International Avg.	2003	382	83.8	5.5	5.5	83.8	5.2	0.0	0.0	84.1	83.6
	2007	623	80.4	5.9	5.8	80.4	4.2	3.3	0.4	80.5	80.3
Basque Country, Spain	2003	202	78.0	7.6	8.0	78.0	6.3	0.0	0.0	86.3	69.9
	2007	329	78.5	7.7	2.9	78.5	3.2	7.1	0.7	85.7	71.4
Ontario, Canada	2003	348	87.9	5.4	1.2	87.9	5.5	0.0	0.0	86.8	89.1
	2007	486	87.3	3.9	4.8	87.3	2.9	0.8	0.2	86.5	88.3
Quebec, Canada	2003	362	89.6	5.8	2.0	89.6	2.6	0.0	0.0	89.2	90.0
	2007	564	88.5	4.0	2.2	88.5	2.9	2.3	0.0	85.9	91.2

DIFF = Percent correct
 Because of missing gender information, some totals may appear inconsistent.

Science: Physics / Knowing (S032425 - S07_07)
 Label: Conserved in thermal expansion
 Type: MC Key: A

COUNTRY	Year	N	DIFF	A	B	C	D	OMIT TED	NOT REACH ED	1.GIRL %Right	2.BOY %Right
Armenia	2003	389	63.2	63.2	17.7	8.6	10.5	0.0	0.0	67.5	58.0
	2007	674	59.9	59.9	16.4	8.8	8.0	6.5	0.3	60.1	59.6
Australia	2003	391	33.5	33.5	21.3	14.0	31.2	0.0	0.0	31.4	35.4
	2007	572	28.7	28.7	23.6	15.6	29.6	2.4	0.1	22.6	34.9
Bahrain	2003	325	45.3	45.3	14.6	22.1	17.9	0.0	0.0	47.0	43.6
	2007	599	47.9	47.9	12.6	17.0	21.0	1.4	0.1	51.7	44.3
Botswana	2003	425	20.7	20.7	22.7	16.0	40.7	0.0	0.0	20.7	20.6
	2007	600	25.0	25.0	18.9	15.5	35.6	1.9	3.1	20.4	30.6
Bulgaria	2003	312	64.8	64.8	10.8	11.4	13.0	0.0	0.0	60.0	69.3
	2007	441	62.3	62.3	9.1	12.0	12.8	3.1	0.8	65.8	58.9
Chinese Taipei	2003	444	81.3	81.3	4.8	4.1	9.8	0.0	0.0	82.1	80.6
	2007	573	83.3	83.3	4.6	3.8	8.3	0.0	0.0	83.4	83.1
Cyprus	2003	320	45.6	45.6	26.0	13.2	15.2	0.0	0.0	44.9	46.3
	2007	622	47.7	47.7	21.3	14.0	14.9	1.9	0.2	46.1	49.2
Egypt	2003	583	40.1	40.1	15.7	19.1	25.0	0.0	0.0	38.8	41.3
	2007	930	35.1	35.1	17.8	22.6	23.3	1.0	0.2	35.9	34.4
England	2003	231	37.4	37.4	24.0	16.0	22.6	0.0	0.0	37.9	36.8
	2007	563	42.2	42.2	20.0	10.2	26.5	0.7	0.4	40.0	44.3
Ghana	2003	413	28.3	28.3	22.0	14.4	35.3	0.0	0.0	32.0	25.3
	2007	749	26.9	26.9	22.4	13.9	31.1	3.7	2.0	29.7	24.4
Hong Kong SAR	2003	420	71.6	71.6	7.5	7.0	13.8	0.0	0.0	69.0	74.2
	2007	498	68.0	68.0	10.5	9.1	11.8	0.2	0.4	69.7	66.3
Hungary	2003	275	76.3	76.3	4.2	9.8	9.7	0.0	0.0	74.6	77.6
	2007	588	65.6	65.6	8.9	14.0	10.7	0.3	0.4	58.3	71.7
Indonesia	2003	477	41.5	41.5	21.0	15.1	22.3	0.0	0.0	43.8	39.3
	2007	594	38.4	38.4	19.2	20.0	19.6	2.4	0.3	37.6	39.2
Iran, Islamic Rep. of	2003	406	31.9	31.9	20.3	24.3	23.4	0.0	0.0	26.9	35.2
	2007	557	37.2	37.2	19.6	20.2	20.9	1.4	0.7	37.6	36.8
Israel	2003	341	65.2	65.2	13.0	6.9	14.9	0.0	0.0	61.5	69.4
	2007	465	61.9	61.9	12.5	9.6	13.0	2.6	0.4	62.0	61.9
Italy	2003	340	50.6	50.6	18.3	14.5	16.6	0.0	0.0	54.2	47.4
	2007	636	48.6	48.6	20.3	13.1	14.7	2.6	0.7	47.6	49.5
Japan	2003	394	63.9	63.9	14.2	5.4	16.5	0.0	0.0	62.1	65.8
	2007	615	68.2	68.2	11.8	7.2	12.5	0.4	0.0	67.9	68.5
Jordan	2003	379	52.5	52.5	15.7	13.5	18.3	0.0	0.0	57.4	47.9
	2007	749	53.1	53.1	21.3	13.7	11.1	0.5	0.2	61.8	45.3
Korea, Rep. of	2003	439	83.3	83.3	4.0	7.2	5.5	0.0	0.0	84.7	81.9
	2007	604	82.5	82.5	4.2	10.3	2.3	0.7	0.0	79.9	85.0
Lebanon	2003	307	55.2	55.2	11.6	14.3	18.8	0.0	0.0	55.8	54.4
	2007	528	48.5	48.5	9.2	18.0	19.0	3.9	1.4	47.7	49.5

DIFF = Percent correct
 Because of missing gender information, some totals may appear inconsistent.

Science: Physics / Knowing (S032425 - S07_07)
 Label: Conserved in thermal expansion
 Type: MC Key: A

COUNTRY	Year	N	DIFF	A	B	C	D	OMIT TED	NOT REACH ED	1.GIRL %Right	2.BOY %Right
Lithuania	2003	379	64.2	64.2	16.5	6.2	13.0	0.0	0.0	61.4	66.9
	2007	573	63.1	63.1	19.3	7.5	9.4	0.4	0.1	58.8	67.8
Malaysia	2003	427	37.2	37.2	19.8	24.7	18.3	0.0	0.0	36.4	38.0
	2007	641	38.3	38.3	20.4	19.9	19.8	1.2	0.4	40.7	35.3
Norway	2003	322	43.4	43.4	24.0	10.7	21.9	0.0	0.0	39.6	47.2
	2007	662	38.1	38.1	22.2	10.8	25.9	2.5	0.5	38.1	38.1
Palestinian Nat'l Auth.	2003	429	48.1	48.1	15.5	17.4	18.9	0.0	0.0	49.5	46.4
	2007	604	39.9	39.9	19.5	17.9	21.5	1.0	0.1	45.9	33.7
Romania	2003	323	38.3	38.3	23.6	25.1	13.0	0.0	0.0	38.0	38.6
	2007	595	32.1	32.1	25.8	22.1	18.2	1.7	0.1	36.2	28.5
Russian Federation	2003	388	66.8	66.8	10.7	10.5	12.1	0.0	0.0	65.8	67.7
	2007	640	67.6	67.6	8.6	8.9	11.9	2.4	0.6	67.5	67.8
Scotland	2003	285	25.1	25.1	29.0	15.1	30.8	0.0	0.0	22.5	27.5
	2007	594	30.9	30.9	22.1	13.5	30.9	2.4	0.2	31.3	30.5
Serbia	2003	340	50.9	50.9	23.1	12.2	13.8	0.0	0.0	52.2	49.7
	2007	568	54.5	54.5	18.4	10.4	15.1	1.6	0.0	52.6	56.2
Singapore	2003	490	40.8	40.8	22.5	17.7	19.0	0.0	0.0	41.0	40.6
	2007	649	43.3	43.3	20.2	15.9	20.5	0.1	0.0	42.9	43.7
Slovenia	2003	305	65.3	65.3	14.2	10.2	10.4	0.0	0.0	61.4	69.5
	2007	590	60.8	60.8	15.6	8.6	12.9	2.1	0.0	56.3	65.7
Sweden	2003	343	56.3	56.3	18.0	10.2	15.4	0.0	0.0	49.4	62.4
	2007	741	47.0	47.0	17.8	11.4	20.8	2.4	0.6	49.4	44.7
Tunisia	2003	369	34.2	34.2	11.7	17.7	36.3	0.0	0.0	30.3	39.4
	2007	565	49.1	49.1	11.8	12.6	20.3	4.7	1.4	45.1	53.1
United States	2003	746	36.5	36.5	22.5	13.8	27.2	0.0	0.0	35.5	37.7
	2007	1047	37.0	37.0	23.3	13.8	25.0	0.7	0.3	34.5	39.3
International Avg.	2003	387	50.3	50.3	17.0	13.6	19.1	0.0	0.0	49.5	51.0
	2007	625	49.5	49.5	16.6	13.4	18.1	1.8	0.5	49.2	49.7
Basque Country, Spain	2003	212	46.0	46.0	24.7	12.1	17.1	0.0	0.0	48.1	43.8
	2007	329	49.5	49.5	24.6	10.7	12.5	2.0	0.7	50.9	48.2
Ontario, Canada	2003	350	29.1	29.1	16.7	13.8	40.4	0.0	0.0	22.0	37.0
	2007	486	35.4	35.4	17.3	10.2	34.1	2.4	0.5	36.5	34.3
Quebec, Canada	2003	361	53.6	53.6	17.7	16.3	12.5	0.0	0.0	50.9	55.9
	2007	564	47.0	47.0	14.1	18.1	19.3	1.5	0.0	47.9	46.1

DIFF = Percent correct
 Because of missing gender information, some totals may appear inconsistent.

Science: Physics / Knowing (S032257 - S07_08)
 Label: Sound of plucked guitar string
 Type: MC Key: B

COUNTRY	Year	N	DIFF	A	B	C	D	OMIT TED	NOT REACH ED	1.GIRL %Right	2.BOY %Right
Armenia	2003	406	10.4	6.6	10.4	76.1	7.0	0.0	0.0	12.0	8.4
	2007	674	16.0	5.7	16.0	68.3	2.7	6.9	0.4	14.7	17.4
Australia	2003	398	50.8	8.3	50.8	38.7	2.2	0.0	0.0	52.1	49.5
	2007	572	54.0	4.4	54.0	37.8	2.4	1.2	0.3	55.0	52.9
Bahrain	2003	328	15.5	9.2	15.5	60.9	14.4	0.0	0.0	17.3	13.7
	2007	599	21.6	12.5	21.6	54.2	9.2	2.4	0.1	20.3	22.7
Botswana	2003	424	27.2	15.8	27.2	45.4	11.6	0.0	0.0	25.2	29.1
	2007	600	29.1	14.1	29.1	38.3	12.8	2.1	3.7	30.4	27.5
Bulgaria	2003	313	18.9	10.9	18.9	63.8	6.4	0.0	0.0	21.3	16.6
	2007	441	19.3	11.2	19.3	61.1	2.6	4.9	0.9	16.8	21.6
Chinese Taipei	2003	445	71.5	4.9	71.5	18.4	5.2	0.0	0.0	77.5	66.0
	2007	573	72.4	5.1	72.4	17.9	4.6	0.0	0.0	75.9	69.3
Cyprus	2003	320	30.4	10.6	30.4	56.9	2.1	0.0	0.0	32.4	28.5
	2007	622	32.6	9.7	32.6	53.4	2.8	1.1	0.3	31.9	33.3
Egypt	2003	585	23.4	15.6	23.4	55.9	5.2	0.0	0.0	21.6	24.9
	2007	935	23.1	10.3	23.1	55.6	9.5	1.2	0.3	22.5	23.8
England	2003	235	55.6	9.0	55.6	33.5	1.9	0.0	0.0	55.0	56.3
	2007	563	58.1	8.2	58.1	30.8	2.0	0.6	0.4	56.6	59.6
Ghana	2003	411	26.7	18.1	26.7	37.8	17.4	0.0	0.0	24.1	28.8
	2007	749	25.1	18.1	25.1	42.2	8.7	3.5	2.4	25.2	25.0
Hong Kong SAR	2003	420	65.1	3.8	65.1	27.0	4.1	0.0	0.0	72.8	57.3
	2007	498	58.0	8.4	58.0	28.1	4.8	0.4	0.4	64.4	51.5
Hungary	2003	276	50.8	5.5	50.8	41.4	2.2	0.0	0.0	55.1	47.7
	2007	588	50.4	7.7	50.4	38.8	2.7	0.0	0.4	55.3	46.3
Indonesia	2003	480	28.2	23.8	28.2	39.0	9.0	0.0	0.0	30.3	26.2
	2007	594	26.7	22.9	26.7	43.8	5.2	0.9	0.5	26.3	27.0
Iran, Islamic Rep. of	2003	407	30.8	7.6	30.8	51.5	10.1	0.0	0.0	28.5	32.4
	2007	557	28.7	9.6	28.7	53.2	6.4	1.4	0.8	29.5	28.1
Israel	2003	344	40.7	9.6	40.7	46.2	3.4	0.0	0.0	36.9	45.0
	2007	465	33.8	10.2	33.8	48.1	4.4	3.2	0.4	32.0	35.9
Italy	2003	354	37.6	14.6	37.6	45.4	2.5	0.0	0.0	38.2	37.0
	2007	636	38.6	11.7	38.6	44.2	4.0	0.9	0.7	37.8	39.5
Japan	2003	397	77.2	5.0	77.2	17.3	0.5	0.0	0.0	79.8	74.6
	2007	615	75.6	4.7	75.6	17.9	1.1	0.7	0.0	81.1	70.1
Jordan	2003	749	19.6	10.1	19.6	63.9	4.5	1.7	0.2	22.3	17.2
	2007	604	56.8	7.6	56.8	32.5	3.0	0.0	0.0	61.0	52.9
Korea, Rep. of	2003	441	51.2	6.8	51.2	39.3	2.7	0.0	0.0	59.0	44.0
	2007	604	56.8	7.6	56.8	32.5	3.0	0.0	0.0	61.0	52.9
Lebanon	2003	313	25.4	16.8	25.4	45.6	12.2	0.0	0.0	26.6	23.8
	2007	536	26.7	18.4	26.7	42.3	6.8	4.1	1.8	25.5	28.0

DIFF = Percent correct
 Because of missing gender information, some totals may appear inconsistent.

Science: Physics / Knowing (S032257 - S07_08)
 Label: Sound of plucked guitar string
 Type: MC Key: B

COUNTRY	Year	N	DIFF	A	B	C	D	OMIT TED	NOT REACH ED	1.GIRL %Right	2.BOY %Right
Lithuania	2003	382	35.9	7.9	35.9	55.7	0.5	0.0	0.0	41.8	30.4
	2007	574	31.8	12.7	31.8	53.4	1.4	0.5	0.1	34.7	28.7
Malaysia	2003	428	25.6	16.4	25.6	55.1	2.9	0.0	0.0	23.9	27.3
	2007	641	32.4	14.4	32.4	47.4	4.7	0.6	0.6	32.7	32.0
Norway	2003	327	48.2	8.5	48.2	38.3	5.0	0.0	0.0	51.2	45.1
	2007	662	48.4	11.4	48.4	34.4	4.5	0.6	0.7	54.5	42.9
Palestinian Nat'l Auth.	2003	.	.	.	.	.	.	.	.	.	.
	2007	.	.	.	.	.	.	.	.	.	.
Romania	2003	327	27.2	12.9	27.2	55.2	4.6	0.0	0.0	26.9	27.5
	2007	595	34.1	11.0	34.1	48.6	5.1	1.1	0.1	30.8	37.1
Russian Federation	2003	388	35.3	9.9	35.3	51.1	3.8	0.0	0.0	34.7	35.8
	2007	640	40.4	10.2	40.4	43.6	3.5	1.2	1.1	39.7	41.0
Scotland	2003	289	52.3	6.5	52.3	39.8	1.4	0.0	0.0	51.0	53.5
	2007	594	48.9	8.1	48.9	39.4	2.8	0.7	0.2	51.6	45.9
Serbia	2003	347	28.8	15.4	28.8	51.1	4.6	0.0	0.0	30.0	27.7
	2007	569	35.1	13.0	35.1	47.4	3.5	1.0	0.0	29.7	39.9
Singapore	2003	494	50.3	8.6	50.3	38.5	2.6	0.0	0.0	51.0	49.7
	2007	649	54.6	7.6	54.6	35.5	2.2	0.1	0.0	59.4	49.7
Slovenia	2003	306	60.8	6.1	60.8	29.6	3.4	0.0	0.0	60.3	61.4
	2007	590	62.0	7.0	62.0	26.3	4.3	0.5	0.0	68.9	54.1
Sweden	2003	347	51.0	13.8	51.0	33.1	2.0	0.0	0.0	48.0	53.6
	2007	741	48.6	14.1	48.6	33.6	2.9	0.3	0.6	47.8	49.2
Tunisia	2003	387	34.8	3.1	34.8	57.7	4.4	0.0	0.0	36.0	33.1
	2007	565	37.4	4.9	37.4	47.9	4.1	3.8	1.8	35.1	39.7
United States	2003	748	46.6	8.7	46.6	41.1	3.6	0.0	0.0	47.4	45.8
	2007	1047	50.3	7.3	50.3	39.5	2.1	0.5	0.3	51.3	49.2
International Avg.	2003	389	39.8	10.3	39.8	44.7	5.1	0.0	0.0	40.9	38.7
	2007	626	40.3	10.4	40.3	42.8	4.4	1.5	0.6	41.3	39.3
Basque Country, Spain	2003	213	42.5	12.9	42.5	41.2	3.4	0.0	0.0	44.2	40.7
	2007	329	47.0	10.2	47.0	37.9	3.6	0.6	0.7	48.2	45.9
Ontario, Canada	2003	352	40.7	8.0	40.7	48.6	2.6	0.0	0.0	47.4	33.5
	2007	486	59.4	5.5	59.4	30.4	2.9	0.5	1.4	60.7	57.9
Quebec, Canada	2003	361	45.8	10.4	45.8	41.7	2.1	0.0	0.0	44.3	47.2
	2007	564	42.2	9.3	42.2	41.3	6.0	1.2	0.0	46.3	38.2

DIFF = Percent correct
 Because of missing gender information, some totals may appear inconsistent.

Science: Earth Science / Applying (S032663 - S07_09)
 Label: Caused by tilt of Earth's axis
 Type: MC Key: A

COUNTRY	Year	N	DIFF	A	B	C	D	OMIT TED	NOT REACH ED	1.GIRL %Right	2.BOY %Right
Armenia	2003	393	20.6	20.6	68.4	6.9	4.1	0.0	0.0	19.1	22.4
	2007	672	23.2	23.2	60.4	4.6	6.6	4.6	0.6	23.1	23.4
Australia	2003	395	53.2	53.2	32.7	5.8	8.3	0.0	0.0	51.7	54.7
	2007	571	51.2	51.2	26.6	6.3	13.4	2.2	0.3	51.0	51.5
Bahrain	2003	333	55.1	55.1	30.0	6.2	8.8	0.0	0.0	53.8	56.4
	2007	599	54.6	54.6	25.8	8.6	9.8	0.9	0.3	51.9	57.1
Botswana	2003	430	31.7	31.7	42.6	10.0	15.7	0.0	0.0	33.1	30.3
	2007	600	24.4	24.4	49.8	9.6	10.9	0.8	4.5	27.3	21.0
Bulgaria	2003	311	46.2	46.2	35.6	4.1	14.1	0.0	0.0	40.2	51.9
	2007	441	45.3	45.3	31.7	4.1	15.0	2.6	1.2	43.3	47.3
Chinese Taipei	2003	442	28.2	28.2	47.3	14.0	10.5	0.0	0.0	25.5	30.8
	2007	573	23.9	23.9	50.8	8.2	16.7	0.3	0.0	19.3	28.0
Cyprus	2003	320	35.5	35.5	43.4	7.8	13.3	0.0	0.0	36.7	34.3
	2007	622	33.2	33.2	41.6	10.5	13.0	1.4	0.4	32.0	34.4
Egypt	2003	585	44.2	44.2	34.9	7.5	13.4	0.0	0.0	46.3	42.4
	2007	932	47.0	47.0	31.4	7.5	12.9	1.0	0.3	51.4	42.7
England	2003	234	57.9	57.9	33.4	3.9	4.8	0.0	0.0	62.1	52.8
	2007	563	57.2	57.2	30.8	3.6	7.4	0.6	0.4	57.8	56.7
Ghana	2003	417	19.0	19.0	64.8	7.2	9.0	0.0	0.0	26.8	12.4
	2007	749	17.3	17.3	63.9	7.0	7.9	1.3	2.6	16.7	17.9
Hong Kong SAR	2003	418	30.8	30.8	43.6	12.5	13.1	0.0	0.0	25.0	36.7
	2007	498	24.4	24.4	46.3	12.7	15.6	0.6	0.4	19.8	29.1
Hungary	2003	272	46.5	46.5	33.4	2.5	17.5	0.0	0.0	41.6	50.0
	2007	588	39.3	39.3	36.6	6.7	15.5	1.5	0.4	37.4	40.9
Indonesia	2003	477	22.7	22.7	60.6	5.8	11.0	0.0	0.0	22.4	23.0
	2007	594	22.0	22.0	57.8	6.9	11.8	0.8	0.7	22.9	21.2
Iran, Islamic Rep. of	2003	410	34.7	34.7	26.8	19.4	19.1	0.0	0.0	34.4	34.9
	2007	557	31.3	31.3	31.8	16.4	18.1	1.1	1.2	29.0	33.2
Israel	2003	340	46.4	46.4	40.5	4.2	8.9	0.0	0.0	45.3	47.5
	2007	465	34.2	34.2	42.2	9.0	10.4	3.5	0.6	35.6	32.6
Italy	2003	347	50.0	50.0	33.6	4.4	12.1	0.0	0.0	48.7	51.3
	2007	632	53.5	53.5	24.3	3.7	16.8	0.9	0.7	51.7	55.3
Japan	2003	395	37.1	37.1	47.9	4.4	10.7	0.0	0.0	34.1	40.1
	2007	615	35.4	35.4	49.7	3.5	10.3	1.1	0.0	34.7	36.0
Jordan	2003	378	53.7	53.7	30.6	7.3	8.4	0.0	0.0	57.3	50.4
	2007	749	54.7	54.7	25.0	6.1	11.9	1.7	0.6	57.5	52.2
Korea, Rep. of	2003	441	40.2	40.2	41.1	3.3	15.4	0.0	0.0	37.2	42.9
	2007	604	43.3	43.3	40.4	2.6	13.6	0.2	0.0	41.5	45.0
Lebanon	2003	307	41.5	41.5	37.6	13.3	7.5	0.0	0.0	46.3	35.5
	2007	526	32.1	32.1	39.8	18.3	5.1	2.7	1.9	32.7	31.4

DIFF = Percent correct
 Because of missing gender information, some totals may appear inconsistent.

Science: Earth Science / Applying (S032663 - S07_09)
 Label: Caused by tilt of Earth's axis
 Type: MC Key: A

COUNTRY	Year	N	DIFF	A	B	C	D	OMIT TED	NOT REACH ED	1.GIRL %Right	2.BOY %Right
Lithuania	2003	380	52.4	52.4	26.3	2.8	18.5	0.0	0.0	52.0	52.8
	2007	573	45.8	45.8	32.7	4.1	16.0	1.2	0.1	43.3	48.5
Malaysia	2003	428	43.4	43.4	41.1	4.7	10.8	0.0	0.0	44.3	42.5
	2007	641	26.6	26.6	49.4	9.9	12.9	0.3	0.8	24.2	29.6
Norway	2003	321	45.9	45.9	30.5	8.1	15.5	0.0	0.0	47.6	44.1
	2007	662	50.4	50.4	23.6	11.3	12.1	1.6	0.9	52.5	48.5
Palestinian Nat'l Auth.	2003	424	47.3	47.3	35.0	7.3	10.4	0.0	0.0	43.8	51.5
	2007	602	44.4	44.4	34.9	11.0	7.4	2.0	0.3	49.0	39.5
Romania	2003	321	40.1	40.1	26.7	5.4	27.9	0.0	0.0	39.7	40.5
	2007	595	34.1	34.1	31.8	8.3	22.6	3.1	0.1	30.8	37.0
Russian Federation	2003	386	43.3	43.3	34.6	6.3	15.8	0.0	0.0	44.9	41.7
	2007	640	37.7	37.7	37.5	7.5	12.4	3.7	1.2	34.9	40.7
Scotland	2003	287	41.2	41.2	36.9	7.7	14.2	0.0	0.0	46.1	37.0
	2007	594	34.1	34.1	40.9	9.1	14.9	0.9	0.2	29.3	39.5
Serbia	2003	329	44.8	44.8	36.6	5.3	13.4	0.0	0.0	39.6	49.5
	2007	564	44.2	44.2	30.0	6.0	17.5	2.1	0.1	41.4	46.8
Singapore	2003	491	27.2	27.2	47.8	11.7	13.3	0.0	0.0	25.6	28.8
	2007	649	24.0	24.0	52.3	7.9	15.6	0.2	0.0	23.6	24.4
Slovenia	2003	304	54.1	54.1	26.3	4.4	15.1	0.0	0.0	53.6	54.7
	2007	590	53.5	53.5	27.9	2.8	14.9	0.9	0.0	52.8	54.2
Sweden	2003	346	51.4	51.4	34.1	6.1	8.4	0.0	0.0	54.6	48.6
	2007	741	52.8	52.8	28.9	6.0	10.9	0.8	0.7	53.4	52.3
Tunisia	2003	370	32.4	32.4	44.8	6.6	16.1	0.0	0.0	25.6	41.5
	2007	565	28.4	28.4	48.7	4.2	12.1	3.6	3.1	23.7	33.0
United States	2003	749	58.9	58.9	26.1	5.3	9.7	0.0	0.0	54.5	63.9
	2007	1047	66.5	66.5	20.9	5.6	6.0	0.6	0.4	66.3	66.7
International Avg.	2003	387	41.7	41.7	38.7	7.0	12.6	0.0	0.0	41.2	42.4
	2007	625	39.1	39.1	38.4	7.6	12.7	1.5	0.8	38.2	39.9
Basque Country, Spain	2003	215	47.9	47.9	38.3	7.3	6.5	0.0	0.0	48.0	47.7
	2007	329	52.9	52.9	31.6	8.6	5.1	1.1	0.7	51.8	53.9
Ontario, Canada	2003	351	50.8	50.8	30.8	8.3	10.0	0.0	0.0	52.3	49.2
	2007	486	45.4	45.4	31.8	5.5	14.7	1.0	1.6	40.8	50.2
Quebec, Canada	2003	362	65.0	65.0	24.8	1.8	8.4	0.0	0.0	67.4	62.9
	2007	564	57.1	57.1	25.6	5.6	9.9	1.5	0.3	55.7	58.5

DIFF = Percent correct
 Because of missing gender information, some totals may appear inconsistent.

Science: Earth Science / Knowing (S032660 - S07_10)
 Label: Location of fresh water on Earth
 Type: MC Key: D

COUNTRY	Year	N	DIFF	A	B	C	D	OMIT TED	NOT REACH ED	1.GIRL %Right	2.BOY %Right
Armenia	2003	420	27.4	9.9	23.9	38.9	27.4	0.0	0.0	25.5	29.6
	2007	672	32.7	6.7	18.6	38.9	32.7	2.2	0.9	34.0	31.1
Australia	2003	400	53.8	4.2	19.6	22.4	53.8	0.0	0.0	41.4	66.0
	2007	572	50.7	2.4	24.4	21.8	50.7	0.4	0.3	47.6	54.0
Bahrain	2003	331	17.5	5.2	70.2	7.0	17.5	0.0	0.0	20.2	14.8
	2007	599	14.1	11.1	65.2	8.7	14.1	0.5	0.3	13.1	15.1
Botswana	2003	431	22.3	35.3	29.1	13.3	22.3	0.0	0.0	19.4	25.2
	2007	600	21.1	32.6	29.8	11.1	21.1	1.0	4.5	19.9	22.5
Bulgaria	2003	313	23.9	8.7	34.7	32.7	23.9	0.0	0.0	20.7	26.9
	2007	441	48.6	10.7	24.1	14.5	48.6	0.8	1.2	49.4	47.9
Chinese Taipei	2003	445	15.7	8.9	36.9	38.5	15.7	0.0	0.0	12.5	18.8
	2007	573	26.1	7.6	35.2	30.8	26.1	0.4	0.0	24.8	27.3
Cyprus	2003	322	18.1	5.2	35.0	41.7	18.1	0.0	0.0	17.0	19.2
	2007	622	22.7	6.2	32.1	37.3	22.7	1.2	0.4	21.1	24.3
Egypt	2003	933	15.1	9.8	64.0	9.8	15.1	1.0	0.3	15.6	14.6
	2007	933	15.1	9.8	64.0	9.8	15.1	1.0	0.3	15.6	14.6
England	2003	233	52.3	8.5	17.8	21.4	52.3	0.0	0.0	54.2	50.1
	2007	563	54.8	3.3	17.3	23.7	54.8	0.5	0.5	52.9	56.6
Ghana	2003	421	18.0	22.5	39.0	20.5	18.0	0.0	0.0	17.9	18.0
	2007	749	19.1	25.1	35.1	15.2	19.1	2.6	3.0	21.3	17.1
Hong Kong SAR	2003	419	33.4	9.0	22.5	35.2	33.4	0.0	0.0	35.7	30.9
	2007	498	38.6	7.9	23.3	29.6	38.6	0.2	0.4	36.7	40.4
Hungary	2003	268	41.1	4.5	26.0	28.5	41.1	0.0	0.0	29.1	49.8
	2007	588	31.7	9.7	24.9	32.3	31.7	0.8	0.6	21.5	40.2
Indonesia	2003	480	36.9	7.5	39.7	15.9	36.9	0.0	0.0	45.5	28.4
	2007	594	33.5	7.1	42.0	15.6	33.5	0.9	0.9	41.7	25.2
Iran, Islamic Rep. of	2003	401	46.9	16.2	22.8	14.1	46.9	0.0	0.0	44.8	48.2
	2007	557	50.1	15.4	18.2	14.7	50.1	0.4	1.2	52.2	48.4
Israel	2003	340	32.3	7.4	26.8	33.5	32.3	0.0	0.0	26.2	39.0
	2007	465	29.9	6.7	25.3	35.8	29.9	1.7	0.6	27.4	32.8
Italy	2003	351	38.7	3.5	26.3	31.4	38.7	0.0	0.0	38.9	38.6
	2007	632	43.5	2.2	25.2	27.5	43.5	0.6	0.9	40.4	46.5
Japan	2003	397	26.0	10.5	31.4	32.1	26.0	0.0	0.0	31.0	20.9
	2007	615	28.1	6.1	33.7	31.8	28.1	0.3	0.0	30.2	26.0
Jordan	2003	377	33.7	8.6	40.7	17.0	33.7	0.0	0.0	39.2	28.6
	2007	749	42.2	11.9	29.0	14.5	42.2	1.8	0.6	51.2	34.1
Korea, Rep. of	2003	440	22.6	29.4	34.8	13.2	22.6	0.0	0.0	21.8	23.3
	2007	604	25.1	21.1	36.7	16.9	25.1	0.2	0.0	23.5	26.7
Lebanon	2003	308	21.4	12.6	46.0	20.1	21.4	0.0	0.0	21.1	21.7
	2007	528	19.3	12.3	44.5	19.1	19.3	2.5	2.3	17.6	21.1

DIFF = Percent correct
 Because of missing gender information, some totals may appear inconsistent.

Science: Earth Science / Knowing (S032660 - S07_10)
 Label: Location of fresh water on Earth
 Type: MC Key: D

COUNTRY	Year	N	DIFF	A	B	C	D	OMIT TED	NOT REACH ED	1.GIRL %Right	2.BOY %Right
Lithuania	2003	382	41.5	9.0	28.9	20.5	41.5	0.0	0.0	43.3	39.8
	2007	573	53.8	8.1	22.4	15.1	53.8	0.5	0.1	50.5	57.4
Malaysia	2003	430	23.6	5.2	38.3	32.9	23.6	0.0	0.0	26.9	20.6
	2007	641	28.9	8.1	38.0	23.1	28.9	1.0	0.9	33.6	23.3
Norway	2003	334	44.6	6.2	16.9	32.2	44.6	0.0	0.0	43.9	45.3
	2007	662	47.3	7.3	16.3	27.3	47.3	0.8	0.9	41.6	52.5
Palestinian Nat'l Auth.	2003	424	32.3	8.5	45.4	13.7	32.3	0.0	0.0	33.3	31.2
	2007	604	29.0	11.3	40.3	17.0	29.0	1.5	0.9	36.2	21.5
Romania	2003	329	28.6	3.7	61.6	6.1	28.6	0.0	0.0	27.5	29.6
	2007	595	24.9	4.4	60.8	7.3	24.9	2.4	0.1	28.5	21.8
Russian Federation	2003	388	62.2	4.0	11.0	22.9	62.2	0.0	0.0	71.1	53.5
	2007	640	60.3	5.7	13.1	17.6	60.3	1.5	1.8	60.5	60.1
Scotland	2003	287	46.2	3.3	20.1	30.4	46.2	0.0	0.0	48.6	44.1
	2007	594	43.4	5.3	27.6	23.4	43.4	0.2	0.2	44.2	42.5
Serbia	2003	338	13.2	12.0	45.0	29.9	13.2	0.0	0.0	9.7	16.3
	2007	564	17.6	11.0	38.3	32.1	17.6	0.8	0.1	17.0	18.1
Singapore	2003	496	74.8	5.7	9.1	10.4	74.8	0.0	0.0	78.4	71.2
	2007	649	67.5	8.3	11.5	12.2	67.5	0.4	0.0	68.8	66.1
Slovenia	2003	300	19.5	10.1	43.9	26.5	19.5	0.0	0.0	20.3	18.7
	2007	590	22.4	6.4	38.9	27.8	22.4	4.5	0.0	17.8	27.5
Sweden	2003	349	28.1	14.7	9.0	48.2	28.1	0.0	0.0	21.8	33.8
	2007	741	30.2	11.5	14.5	42.8	30.2	0.3	0.7	24.2	35.9
Tunisia	2003	376	28.6	8.7	51.0	11.7	28.6	0.0	0.0	29.9	27.0
	2007	565	29.6	15.2	36.1	12.2	29.6	3.8	3.2	32.8	26.3
United States	2003	749	47.5	3.6	26.4	22.5	47.5	0.0	0.0	42.3	53.3
	2007	1047	45.8	3.9	27.5	21.8	45.8	0.6	0.4	43.0	48.4
International Avg.	2003	384	33.5	9.8	32.2	24.5	33.5	0.0	0.0	33.1	33.8
	2007	625	34.8	9.8	31.3	22.1	34.8	1.2	0.9	34.6	34.9
Basque Country, Spain	2003	216	30.6	12.3	30.3	26.9	30.6	0.0	0.0	29.5	31.7
	2007	329	39.9	11.1	30.1	17.3	39.9	0.9	0.7	36.2	43.4
Ontario, Canada	2003	352	50.8	2.4	20.4	26.4	50.8	0.0	0.0	43.5	58.7
	2007	486	54.0	2.3	19.3	22.2	54.0	0.2	2.0	49.2	59.0
Quebec, Canada	2003	357	44.8	9.1	17.7	28.4	44.8	0.0	0.0	43.3	46.1
	2007	564	45.7	7.6	20.0	25.9	45.7	0.5	0.3	41.7	49.9

DIFF = Percent correct
 Because of missing gender information, some totals may appear inconsistent.

Science: Earth Science / Reasoning (S032555 - S07_11)
 Label: Table of fertilizer/rice yield data
 Type: CR Key: -

COUNTRY	Year	N	10	11	12	19	70	71	79	OMIT TED	NOT REACH ED	V1	1.GIRL %Right	2.BOY %Right
Armenia	2003	87	11.7	5.1	34.8	3.3	30.9	2.6	11.6	0.0	0.0	54.9	55.9	53.2
	2007	676	4.2	1.3	15.6	0.9	4.1	0.4	21.5	51.0	1.0	22.0	24.8	18.8
Australia	2003	283	19.1	9.2	26.9	0.0	19.9	3.2	21.7	0.0	0.0	55.2	43.6	65.7
	2007	572	14.4	7.7	12.9	0.0	14.8	1.7	20.4	27.5	0.5	35.0	33.6	36.5
Bahrain	2003	164	6.3	0.0	4.4	8.1	36.9	0.0	44.3	0.0	0.0	18.7	19.6	16.9
	2007	599	4.4	4.3	9.6	2.4	19.0	2.9	28.5	28.7	0.3	20.6	26.9	14.6
Botswana	2003	290	0.7	0.4	1.3	0.3	4.9	3.3	89.1	0.0	0.0	2.8	4.3	0.9
	2007	600	1.0	1.4	1.8	0.6	2.9	1.8	65.1	20.5	4.9	4.8	6.3	2.9
Bulgaria	2003	172	3.0	15.2	14.5	19.7	12.6	1.5	33.5	0.0	0.0	52.3	48.8	55.7
	2007	441	13.7	6.8	6.1	0.1	13.0	0.0	11.1	47.7	1.5	26.7	30.5	23.1
Chinese Taipei	2003	347	9.3	13.7	13.8	12.3	24.2	1.9	24.8	0.0	0.0	49.1	47.9	50.4
	2007	573	12.0	10.4	25.4	3.6	14.6	5.0	13.1	16.1	0.0	51.3	48.7	53.6
Cyprus	2003	132	6.2	4.3	3.9	9.4	25.9	3.9	46.3	0.0	0.0	23.9	24.1	23.6
	2007	622	3.2	1.9	5.4	7.3	15.7	1.8	17.4	46.9	0.4	17.7	17.1	18.4
Egypt	2003	438	2.7	1.6	4.0	2.8	19.1	0.8	69.1	0.0	0.0	11.1	12.1	10.2
	2007	938	2.1	2.8	3.8	0.4	15.7	2.9	42.1	29.5	0.6	9.2	8.7	9.6
England	2003	188	8.3	8.8	26.9	0.4	25.7	3.9	26.0	0.0	0.0	44.4	40.5	49.4
	2007	563	11.0	10.9	16.7	0.4	16.8	5.9	19.4	18.4	0.5	38.9	41.2	36.9
Ghana	2003	138	0.0	0.4	2.5	1.7	3.9	10.2	81.2	0.0	0.0	4.7	3.8	5.2
	2007	749	0.2	1.0	1.2	0.1	2.3	2.8	30.3	58.2	3.8	2.6	3.3	1.9
Hong Kong SAR	2003	362	9.3	19.6	20.4	6.8	20.9	4.1	18.8	0.0	0.0	56.1	58.0	54.0
	2007	498	17.6	17.1	13.0	0.2	22.2	2.6	13.3	13.7	0.4	47.9	50.1	45.6
Hungary	2003	221	22.4	7.0	19.7	0.0	34.3	5.4	11.1	0.0	0.0	49.1	44.4	52.5
	2007	588	15.9	8.4	21.1	0.0	16.7	5.4	12.7	19.2	0.6	45.4	42.1	48.1
Indonesia	2003	313	6.4	3.6	11.6	6.8	16.2	3.4	52.0	0.0	0.0	28.4	31.2	25.5
	2007	588	6.5	4.3	12.1	2.4	14.0	1.7	41.4	15.9	1.7	25.3	30.0	20.6
Iran, Islamic Rep. of	2003	195	10.0	6.6	8.8	2.0	40.6	4.5	27.5	0.0	0.0	27.4	27.5	27.3
	2007	557	9.5	6.6	7.9	0.7	16.8	2.8	20.0	34.2	1.6	24.6	27.1	22.6
Israel	2003	207	14.4	14.0	18.7	3.5	20.2	2.5	26.6	0.0	0.0	50.7	45.9	55.5
	2007	465	10.0	5.5	7.5	2.2	14.7	2.9	18.0	38.3	0.9	25.2	23.9	26.8
Italy	2003	174	21.5	10.6	16.2	4.1	17.4	6.3	23.9	0.0	0.0	52.4	60.4	45.7
	2007	637	11.4	5.4	12.1	2.6	7.5	2.0	14.6	43.2	1.1	31.5	31.8	31.3
Japan	2003	315	17.8	9.8	31.9	4.8	10.5	10.0	15.2	0.0	0.0	64.3	63.5	65.1
	2007	615	9.5	7.0	33.6	5.9	12.2	6.6	9.8	15.3	0.0	56.1	58.7	53.5
Jordan	2003	274	6.0	4.0	4.5	4.3	30.5	4.6	46.0	0.0	0.0	18.8	20.3	17.3
	2007	749	3.8	5.7	3.0	5.8	22.1	2.2	40.5	16.2	0.7	18.3	22.0	15.0
Korea, Rep. of	2003	396	13.2	16.8	9.3	22.2	12.6	5.9	20.1	0.0	0.0	61.3	56.7	65.8
	2007	604	14.9	26.7	14.5	0.0	9.8	7.8	18.2	8.2	0.0	56.1	52.9	59.1
Lebanon	2003	124	8.5	9.7	20.0	8.3	19.9	4.7	29.0	0.0	0.0	46.5	50.8	40.0
	2007	537	5.6	5.1	5.6	2.1	14.4	3.0	21.1	40.0	3.0	18.5	19.3	17.6

V1 = Percent scoring 1 or better V2 = Percent scoring 2 or better
 Percent right for boys and girls corresponds to the percent obtaining the maximum score on the item.
 Because of missing gender information, some totals may appear inconsistent.

Science: Earth Science / Reasoning (S032555 - S07_11)
 Label: Table of fertilizer/rice yield data
 Type: CR Key: -

COUNTRY	Year	N	10	11	12	19	70	71	79	OMIT TED	NOT REACH ED	V1	1.GIRL %Right	2.BOY %Right
Lithuania	2003	259	46.4	5.9	4.0	14.8	11.8	2.0	15.1	0.0	0.0	71.1	78.2	63.5
	2007	574	20.0	14.4	13.7	0.4	8.5	5.5	12.7	24.6	0.1	48.5	51.0	46.0
Malaysia	2003	351	6.8	12.6	17.3	1.7	15.0	14.3	32.4	0.0	0.0	38.4	36.1	40.5
	2007	641	6.2	7.4	11.5	3.3	21.2	5.8	30.2	13.0	1.3	28.4	29.7	26.8
Norway	2003	216	11.6	14.0	18.1	0.8	19.3	4.0	32.2	0.0	0.0	44.6	45.5	43.6
	2007	662	10.0	8.6	10.6	0.0	10.4	2.9	20.9	35.6	1.0	29.2	32.3	26.4
Palestinian Nat'l Auth.	2003	313	2.9	1.8	3.6	2.5	35.1	4.1	50.1	0.0	0.0	10.8	13.6	6.9
	2007	604	4.0	2.9	2.3	3.3	16.4	3.8	43.2	22.9	1.3	12.4	16.2	8.4
Romania	2003	170	11.9	6.0	12.4	6.4	27.6	3.1	32.6	0.0	0.0	36.7	32.0	43.1
	2007	595	8.1	5.4	9.6	0.9	14.6	4.6	17.5	39.2	0.1	23.9	27.6	20.7
Russian Federation	2003	254	26.0	13.5	16.1	1.1	26.4	2.7	14.2	0.0	0.0	56.7	52.1	61.6
	2007	640	9.5	19.4	8.7	3.8	13.9	2.6	14.3	26.0	1.9	41.4	40.2	42.7
Scotland	2003	204	14.8	10.7	18.5	0.0	21.1	3.9	31.0	0.0	0.0	43.9	35.8	51.3
	2007	594	9.5	7.4	11.4	0.4	15.9	3.9	22.5	28.7	0.2	28.8	28.4	29.3
Serbia	2003	189	10.1	5.4	14.0	10.8	31.4	1.3	27.0	0.0	0.0	40.3	36.6	44.4
	2007	569	9.4	6.4	7.9	0.6	10.9	1.5	14.7	48.2	0.5	24.4	26.6	22.3
Singapore	2003	430	14.2	21.3	21.1	0.0	14.4	7.1	22.0	0.0	0.0	56.6	51.2	62.2
	2007	649	17.2	8.3	24.4	0.1	12.5	6.8	20.7	10.0	0.0	50.0	53.6	46.2
Slovenia	2003	224	21.0	11.2	25.7	0.7	23.4	3.3	14.7	0.0	0.0	58.6	52.5	65.4
	2007	590	19.1	10.1	13.3	0.9	23.2	3.1	17.0	13.2	0.1	43.4	40.8	46.3
Sweden	2003	230	22.7	16.9	19.7	1.8	10.4	3.5	25.1	0.0	0.0	61.1	50.8	70.3
	2007	741	15.2	11.3	12.8	0.2	9.2	2.6	16.9	30.9	0.8	39.5	41.4	37.8
Tunisia	2003	311	13.5	7.7	10.6	1.7	29.3	2.9	34.4	0.0	0.0	33.4	31.6	35.7
	2007	565	7.6	4.7	9.0	2.0	11.0	4.4	38.9	19.0	3.4	23.3	22.4	24.1
United States	2003	619	13.8	13.1	17.5	0.9	17.3	4.7	32.7	0.0	0.0	45.2	39.4	51.9
	2007	1047	11.1	7.5	19.4	0.1	14.7	5.2	28.7	12.9	0.4	38.1	35.2	40.8
International Avg.	2003	260	12.5	9.1	14.9	5.0	21.5	4.2	32.8	0.0	0.0	41.5	39.8	43.0
	2007	626	9.6	7.7	11.6	1.6	13.7	3.5	23.5	27.7	1.1	30.6	31.7	29.5
Basque Country, Spain	2003	130	19.6	13.6	21.8	1.5	27.5	0.9	15.0	0.0	0.0	56.6	52.6	60.6
	2007	329	17.0	7.7	8.6	1.2	14.4	3.1	17.0	29.8	1.2	34.5	29.7	39.1
Ontario, Canada	2003	259	13.8	13.2	18.1	0.8	19.9	3.2	31.1	0.0	0.0	45.9	43.5	48.4
	2007	486	16.7	7.9	10.0	0.0	12.7	4.2	26.4	20.0	2.0	34.7	36.4	32.9
Quebec, Canada	2003	285	9.6	11.7	26.7	0.7	16.0	8.9	26.4	0.0	0.0	48.7	50.2	47.4
	2007	564	12.0	7.2	16.2	0.8	12.3	5.8	25.9	19.5	0.3	36.2	37.4	35.1

V1 = Percent scoring 1 or better V2 = Percent scoring 2 or better
 Percent right for boys and girls corresponds to the percent obtaining the maximum score on the item.
 Because of missing gender information, some totals may appear inconsistent.

Science: Biology / Knowing (S032122 - S07_12)
 Label: Reason for increase in population
 Type: CR Key: -

COUNTRY	Year	N	10	19	70	71	79	OMIT TED	NOT REACH ED	V1	1.GIRL %Right	2.BOY %Right
Armenia	2003	158	32.1	13.7	10.1	14.6	29.5	0.0	0.0	45.7	46.7	44.4
	2007	675	32.5	5.3	0.9	9.0	22.7	13.9	15.6	37.8	39.8	35.5
Australia	2003	354	34.2	0.0	2.0	36.9	26.9	0.0	0.0	34.2	33.8	34.7
	2007	572	26.8	0.0	5.2	35.4	22.9	7.0	2.8	26.8	25.6	27.9
Bahrain	2003	268	25.8	32.6	5.3	24.5	11.9	0.0	0.0	58.3	62.0	53.7
	2007	599	62.6	2.1	1.2	8.7	14.0	5.7	5.7	64.7	74.3	55.5
Botswana	2003	376	4.1	0.8	0.3	17.6	77.2	0.0	0.0	4.9	4.3	5.5
	2007	596	5.5	0.0	0.4	23.0	54.5	7.2	9.4	5.5	5.1	6.0
Bulgaria	2003	227	26.7	12.5	9.2	15.8	35.7	0.0	0.0	39.2	40.8	37.8
	2007	441	33.8	0.4	1.7	15.2	16.6	17.7	14.6	34.2	35.8	32.7
Chinese Taipei	2003	395	43.6	0.3	18.6	4.4	33.1	0.0	0.0	43.9	42.2	45.5
	2007	573	41.2	0.6	15.5	14.2	17.4	7.5	3.6	41.7	39.4	43.9
Cyprus	2003	183	27.5	0.6	7.8	20.7	43.4	0.0	0.0	28.1	27.4	28.9
	2007	622	16.4	5.5	3.7	22.8	18.0	23.7	9.8	21.9	22.4	21.4
Egypt	2003	532	36.5	0.6	0.9	20.5	41.4	0.0	0.0	37.1	39.8	34.9
	2007	937	21.3	0.2	1.3	26.9	31.5	12.4	6.4	21.6	23.6	19.7
England	2003	207	43.7	0.0	4.0	26.2	26.0	0.0	0.0	43.7	41.3	46.8
	2007	563	39.0	0.0	3.8	26.2	23.2	3.5	4.3	39.0	42.1	36.2
Ghana	2003	245	3.8	1.5	1.1	27.7	66.0	0.0	0.0	5.3	2.1	7.7
	2007	749	3.6	0.2	1.3	26.0	32.4	17.5	19.0	3.8	3.6	4.1
Hong Kong SAR	2003	375	39.8	0.0	12.5	25.8	21.9	0.0	0.0	39.8	38.5	41.3
	2007	498	25.8	0.9	12.1	27.2	25.3	6.0	2.8	26.6	27.4	25.8
Hungary	2003	191	36.6	0.0	20.7	23.4	19.3	0.0	0.0	36.6	34.4	38.0
	2007	588	31.8	0.0	9.2	15.8	25.3	13.7	4.2	31.8	31.6	31.9
Indonesia	2003	382	11.9	2.8	3.4	26.7	55.1	0.0	0.0	14.7	12.1	17.3
	2007	593	10.3	2.9	4.7	21.3	46.9	8.4	5.5	13.2	15.7	10.7
Iran, Islamic Rep. of	2003	310	17.2	1.4	11.9	36.3	33.2	0.0	0.0	18.7	18.2	19.0
	2007	557	14.2	2.0	9.0	31.8	23.1	11.9	8.0	16.1	17.6	15.0
Israel	2003	279	45.9	1.1	15.0	22.1	15.9	0.0	0.0	47.0	49.9	43.9
	2007	465	28.9	0.3	15.4	14.4	18.3	15.7	7.0	29.2	29.9	28.3
Italy	2003	288	55.4	0.6	13.7	12.0	18.3	0.0	0.0	56.0	58.6	53.4
	2007	636	46.7	1.1	5.0	17.8	11.6	10.2	7.6	47.8	48.8	46.8
Japan	2003	337	45.6	0.0	9.5	21.8	23.0	0.0	0.0	45.6	41.6	49.8
	2007	615	31.2	0.0	3.5	15.6	40.9	6.2	2.6	31.2	29.0	33.5
Jordan	2003	331	70.5	2.1	0.2	8.9	18.3	0.0	0.0	72.5	79.2	65.6
	2007	749	53.1	0.6	2.6	15.3	21.4	3.9	3.1	53.6	53.7	53.6
Korea, Rep. of	2003	406	33.3	5.0	20.8	15.3	25.6	0.0	0.0	38.3	38.8	37.9
	2007	604	16.5	0.0	43.8	16.5	15.4	6.5	1.2	16.5	17.1	16.0
Lebanon	2003	172	18.3	4.9	12.4	15.5	49.0	0.0	0.0	23.1	23.6	22.5
	2007	538	12.5	1.1	10.2	10.0	30.4	20.4	15.4	13.6	12.6	14.7

V1 = Percent scoring 1 or better V2 = Percent scoring 2 or better
 Percent right for boys and girls corresponds to the percent obtaining the maximum score on the item.
 Because of missing gender information, some totals may appear inconsistent.

Science: Biology / Knowing (S032122 - S07_12)
 Label: Reason for increase in population
 Type: CR Key: -

COUNTRY	Year	N	10	19	70	71	79	OMIT TED	NOT REACH ED	V1	1.GIRL %Right	2.BOY %Right
Lithuania	2003	319	65.4	2.2	8.7	9.4	14.3	0.0	0.0	67.6	67.4	67.8
	2007	574	51.9	0.0	3.3	22.7	13.6	5.9	2.7	51.9	50.7	53.1
Malaysia	2003	362	18.9	0.9	22.4	27.2	30.6	0.0	0.0	19.8	22.8	16.9
	2007	641	17.1	3.9	8.8	18.4	37.3	9.8	4.7	21.0	22.7	18.9
Norway	2003	282	51.5	0.3	5.1	23.6	19.6	0.0	0.0	51.8	55.2	48.4
	2007	662	42.0	0.0	4.0	16.9	24.2	8.0	4.9	42.0	46.2	38.0
Palestinian Nat'l Auth.	2003	352	21.9	1.0	5.0	40.4	31.6	0.0	0.0	23.0	30.2	14.0
	2007	605	13.0	0.7	4.9	25.0	39.7	10.1	6.7	13.7	17.3	10.0
Romania	2003	229	49.2	5.7	8.9	11.7	24.4	0.0	0.0	55.0	57.6	51.7
	2007	595	36.2	0.8	4.2	9.4	20.9	18.8	9.5	37.1	40.0	34.5
Russian Federation	2003	251	40.9	2.1	4.9	24.1	28.0	0.0	0.0	43.1	44.8	41.4
	2007	640	28.9	0.0	2.1	16.7	25.1	17.3	9.9	28.9	29.2	28.6
Scotland	2003	248	40.8	0.0	2.0	29.6	27.6	0.0	0.0	40.8	38.6	42.7
	2007	594	27.7	0.0	3.2	31.4	23.3	10.5	3.9	27.7	28.0	27.3
Serbia	2003	177	27.7	8.8	15.9	13.7	33.8	0.0	0.0	36.5	35.0	37.7
	2007	568	24.3	1.3	6.5	8.0	18.1	27.3	14.6	25.6	30.0	21.6
Singapore	2003	454	26.6	0.4	14.8	41.3	17.0	0.0	0.0	27.0	25.9	28.0
	2007	649	22.3	0.0	15.3	34.6	21.8	4.6	1.4	22.3	22.1	22.6
Slovenia	2003	249	54.9	1.4	7.3	14.8	21.5	0.0	0.0	56.3	59.7	52.4
	2007	590	44.0	0.9	8.1	14.5	24.3	6.9	1.3	44.9	48.4	40.9
Sweden	2003	310	42.0	0.0	4.2	24.4	29.4	0.0	0.0	42.0	41.3	42.6
	2007	741	33.4	0.6	3.5	19.8	28.6	9.8	4.4	34.0	40.3	28.1
Tunisia	2003	350	51.2	1.7	1.8	21.6	23.7	0.0	0.0	52.9	50.0	56.8
	2007	565	25.1	0.4	2.5	39.4	19.7	5.5	7.5	25.4	21.8	29.0
United States	2003	698	27.6	0.3	4.4	43.2	24.4	0.0	0.0	27.9	30.0	25.5
	2007	1047	26.0	0.0	7.0	40.7	21.6	3.3	1.4	26.0	26.5	25.6
International Avg.	2003	312	35.5	3.2	8.6	22.5	30.2	0.0	0.0	38.7	39.2	38.0
	2007	625	28.6	1.0	6.8	20.9	25.1	10.8	6.7	29.6	30.9	28.4
Basque Country, Spain	2003	180	49.8	0.0	13.0	21.2	16.0	0.0	0.0	49.8	46.8	53.4
	2007	329	52.1	0.5	4.9	9.9	18.3	9.8	4.4	52.6	52.1	53.1
Ontario, Canada	2003	315	28.2	0.1	9.6	28.8	33.3	0.0	0.0	28.3	33.7	22.1
	2007	486	26.9	0.4	7.1	34.3	21.0	6.3	3.9	27.3	26.8	27.9
Quebec, Canada	2003	332	35.4	0.9	10.8	30.7	22.3	0.0	0.0	36.3	36.5	36.1
	2007	564	26.9	0.1	6.3	30.9	29.4	5.0	1.3	27.1	31.1	23.1

V1 = Percent scoring 1 or better V2 = Percent scoring 2 or better
 Percent right for boys and girls corresponds to the percent obtaining the maximum score on the item.
 Because of missing gender information, some totals may appear inconsistent.

Science: Biology / Applying (S032542 - S09_01)
 Label: Classification of animals
 Type: MC Key: B

COUNTRY	Year	N	DIFF	A	B	C	D	OMIT TED	NOT REACH ED	1.GIRL %Right	2.BOY %Right
Armenia	2003	392	33.4	30.4	33.4	15.7	20.5	0.0	0.0	31.3	35.7
	2007	679	42.2	19.1	42.2	18.0	12.2	8.5	0.0	41.3	43.1
Australia	2003	402	49.1	18.4	49.1	15.1	17.5	0.0	0.0	42.8	55.8
	2007	578	49.1	16.2	49.1	16.4	16.9	1.4	0.0	45.3	52.9
Bahrain	2003	336	43.2	19.1	43.2	20.9	16.8	0.0	0.0	45.1	41.4
	2007	618	40.7	15.7	40.7	20.8	18.7	3.4	0.7	45.0	36.6
Botswana	2003	416	27.1	20.9	27.1	32.1	19.9	0.0	0.0	19.5	35.3
	2007	596	26.7	15.5	26.7	30.8	22.8	2.8	1.4	26.2	27.2
Bulgaria	2003	304	43.2	20.3	43.2	17.7	18.8	0.0	0.0	39.6	46.8
	2007	443	40.2	25.1	40.2	17.5	13.9	3.3	0.0	42.1	38.6
Chinese Taipei	2003	441	68.0	10.0	68.0	14.1	7.9	0.0	0.0	63.6	72.2
	2007	581	73.7	11.2	73.7	10.2	4.9	0.0	0.0	73.7	73.8
Cyprus	2003	325	33.1	26.3	33.1	29.8	10.8	0.0	0.0	25.7	40.8
	2007	630	35.0	22.8	35.0	28.5	12.1	1.3	0.3	29.9	40.2
Egypt	2003	584	30.6	18.4	30.6	32.4	18.5	0.0	0.0	27.0	33.7
	2007	928	29.8	20.5	29.8	26.9	20.8	1.9	0.1	24.4	34.9
England	2003	223	47.1	19.3	47.1	19.4	14.2	0.0	0.0	39.8	54.3
	2007	569	51.6	12.1	51.6	20.4	14.6	1.1	0.2	46.5	56.7
Ghana	2003	422	30.0	15.6	30.0	34.0	20.4	0.0	0.0	27.2	32.5
	2007	760	25.3	18.5	25.3	32.7	18.5	3.9	1.1	24.2	26.3
Hong Kong SAR	2003	411	66.5	15.1	66.5	9.6	8.8	0.0	0.0	63.2	69.9
	2007	498	61.6	12.2	61.6	11.6	13.3	1.3	0.0	59.5	63.5
Hungary	2003	258	71.3	12.0	71.3	7.6	9.2	0.0	0.0	70.8	71.7
	2007	591	71.5	10.2	71.5	7.1	8.0	3.2	0.1	68.1	75.1
Indonesia	2003	476	40.3	27.4	40.3	18.6	13.7	0.0	0.0	38.0	42.7
	2007	600	30.7	33.3	30.7	18.8	16.0	0.7	0.6	25.5	36.1
Iran, Islamic Rep. of	2003	387	36.0	19.3	36.0	32.4	12.3	0.0	0.0	29.9	39.8
	2007	577	32.1	21.9	32.1	26.5	17.7	1.8	0.0	31.2	33.0
Israel	2003	344	52.7	14.6	52.7	21.7	10.9	0.0	0.0	48.2	57.5
	2007	463	50.1	13.6	50.1	23.9	8.1	3.1	1.2	48.3	52.2
Italy	2003	353	57.5	16.5	57.5	15.4	10.6	0.0	0.0	50.0	65.7
	2007	634	54.9	16.5	54.9	18.6	8.4	1.6	0.0	55.8	54.0
Japan	2003	399	64.0	12.6	64.0	14.6	8.8	0.0	0.0	58.2	70.1
	2007	610	68.5	10.1	68.5	13.9	6.0	1.3	0.2	65.0	71.7
Jordan	2003	365	40.9	18.3	40.9	23.2	17.6	0.0	0.0	45.9	36.3
	2007	747	39.8	18.0	39.8	21.7	18.3	2.1	0.2	38.7	40.8
Korea, Rep. of	2003	446	65.2	10.7	65.2	18.0	6.1	0.0	0.0	60.1	69.5
	2007	606	69.9	10.9	69.9	14.2	5.0	0.0	0.0	66.8	72.6
Lebanon	2003	311	50.2	18.6	50.2	19.1	12.1	0.0	0.0	51.1	49.1
	2007	534	46.4	17.8	46.4	18.3	13.4	2.9	1.1	44.2	48.8

DIFF = Percent correct
 Because of missing gender information, some totals may appear inconsistent.

Science: Biology / Applying (S032542 - S09_01)
 Label: Classification of animals
 Type: MC Key: B

COUNTRY	Year	N	DIFF	A	B	C	D	OMIT TED	NOT REACH ED	1.GIRL %Right	2.BOY %Right
Lithuania	2003	358	50.5	18.4	50.5	15.0	16.0	0.0	0.0	43.2	56.1
	2007	566	49.8	20.5	49.8	13.5	15.0	1.2	0.0	45.8	53.8
Malaysia	2003	439	55.8	18.7	55.8	11.9	13.6	0.0	0.0	57.7	53.9
	2007	634	55.6	18.1	55.6	14.0	11.3	0.6	0.5	60.0	50.9
Norway	2003	324	57.3	16.8	57.3	12.3	13.6	0.0	0.0	57.8	56.9
	2007	676	54.2	14.9	54.2	16.9	12.2	1.8	0.0	53.7	54.6
Palestinian Nat'l Auth.	2003	419	34.7	23.7	34.7	24.4	17.2	0.0	0.0	31.4	38.7
	2007	631	32.7	20.1	32.7	23.8	21.1	2.1	0.2	34.4	31.0
Romania	2003	330	53.6	15.0	53.6	18.8	12.6	0.0	0.0	46.6	61.3
	2007	602	53.0	13.6	53.0	17.4	14.3	1.5	0.1	50.1	55.7
Russian Federation	2003	377	55.0	18.5	55.0	13.1	13.4	0.0	0.0	49.7	60.2
	2007	650	56.1	15.3	56.1	15.3	10.7	2.3	0.2	52.9	59.5
Scotland	2003	282	46.5	21.1	46.5	18.1	14.3	0.0	0.0	40.3	52.4
	2007	560	41.3	21.6	41.3	20.9	14.8	0.8	0.6	39.7	43.1
Serbia	2003	341	35.7	28.9	35.7	17.4	18.0	0.0	0.0	26.1	44.9
	2007	581	47.8	19.4	47.8	14.2	15.5	3.1	0.0	47.6	48.1
Singapore	2003	502	78.2	9.0	78.2	6.7	6.2	0.0	0.0	76.3	79.8
	2007	658	74.1	10.0	74.1	7.4	7.9	0.6	0.0	73.5	74.6
Slovenia	2003	291	49.9	15.4	49.9	22.1	12.7	0.0	0.0	47.9	51.6
	2007	588	59.1	11.8	59.1	17.0	10.8	1.4	0.0	58.6	59.5
Sweden	2003	336	54.4	15.5	54.4	17.3	12.9	0.0	0.0	55.7	52.9
	2007	751	59.5	15.4	59.5	16.1	7.0	2.0	0.0	60.4	58.7
Tunisia	2003	372	54.7	14.2	54.7	16.8	14.3	0.0	0.0	49.1	61.2
	2007	589	49.7	15.4	49.7	19.1	10.9	3.9	1.0	40.1	59.2
United States	2003	730	42.4	15.2	42.4	20.2	22.2	0.0	0.0	37.7	47.2
	2007	1033	43.6	14.1	43.6	19.6	21.5	1.0	0.2	39.6	47.5
International Avg.	2003	385	49.0	18.0	49.0	19.0	14.0	0.0	0.0	45.3	52.7
	2007	629	49.0	16.7	49.0	18.5	13.4	2.1	0.3	47.2	50.7
Basque Country, Spain	2003	212	55.6	17.0	55.6	19.0	8.4	0.0	0.0	54.9	56.2
	2007	323	59.1	19.2	59.1	11.7	8.2	1.3	0.5	52.3	64.6
Ontario, Canada	2003	342	45.3	18.9	45.3	18.3	17.4	0.0	0.0	42.6	47.6
	2007	499	48.7	16.3	48.7	15.3	18.8	0.9	0.0	44.5	52.8
Quebec, Canada	2003	360	57.1	18.9	57.1	17.2	6.8	0.0	0.0	54.9	59.3
	2007	573	43.8	24.2	43.8	19.8	9.2	2.0	0.9	42.5	45.2

DIFF = Percent correct
 Because of missing gender information, some totals may appear inconsistent.

Science: Biology / Knowing (S032645 - S09_02)
 Label: True statement about producers
 Type: MC Key: A

COUNTRY	Year	N	DIFF	A	B	C	D	OMIT TED	NOT REACH ED	1.GIRL %Right	2.BOY %Right
Armenia	2003	363	47.2	47.2	10.4	31.5	10.9	0.0	0.0	53.7	40.4
	2007	684	48.0	48.0	8.1	21.0	9.4	13.4	0.0	49.3	46.8
Australia	2003	399	52.0	52.0	9.0	20.5	18.5	0.0	0.0	53.5	50.4
	2007	578	49.8	49.8	7.8	18.1	22.2	2.0	0.0	46.8	52.8
Bahrain	2003	331	44.6	44.6	7.0	35.6	12.7	0.0	0.0	46.3	42.9
	2007	618	56.6	56.6	5.8	21.4	12.5	2.7	0.9	68.5	45.2
Botswana	2003	423	38.0	38.0	5.9	33.8	22.3	0.0	0.0	37.6	38.5
	2007	596	40.4	40.4	5.1	31.9	18.5	2.0	2.1	44.9	35.7
Bulgaria	2003	298	37.6	37.6	7.9	36.6	17.8	0.0	0.0	34.6	40.7
	2007	443	39.6	39.6	10.2	31.4	14.0	4.7	0.0	41.6	38.1
Chinese Taipei	2003	440	70.9	70.9	5.1	9.4	14.6	0.0	0.0	68.6	73.0
	2007	581	72.8	72.8	5.5	8.2	13.6	0.0	0.0	72.5	73.0
Cyprus	2003	316	42.0	42.0	7.3	32.6	18.1	0.0	0.0	44.7	39.2
	2007	630	38.2	38.2	9.3	34.9	15.0	2.2	0.4	37.9	38.5
Egypt	2003	584	29.9	29.9	10.0	38.9	21.3	0.0	0.0	28.3	31.2
	2007	927	32.5	32.5	6.9	37.4	22.6	0.6	0.1	35.1	29.9
England	2003	228	68.0	68.0	4.0	17.8	10.1	0.0	0.0	67.4	68.7
	2007	569	66.9	66.9	3.6	19.1	8.4	1.7	0.2	65.9	68.0
Ghana	2003	420	35.5	35.5	10.5	37.2	16.9	0.0	0.0	38.2	33.1
	2007	760	36.8	36.8	9.1	32.2	17.5	3.1	1.4	35.4	38.0
Hong Kong SAR	2003	410	60.3	60.3	7.0	16.8	15.9	0.0	0.0	54.3	66.5
	2007	498	57.4	57.4	9.2	16.4	16.1	0.9	0.0	53.0	61.5
Hungary	2003	252	43.8	43.8	3.9	26.9	25.3	0.0	0.0	42.2	45.7
	2007	591	36.4	36.4	6.0	26.9	28.4	2.2	0.1	32.9	40.0
Indonesia	2003	480	60.8	60.8	5.3	23.9	10.0	0.0	0.0	62.4	59.2
	2007	600	56.9	56.9	5.4	26.7	9.6	0.8	0.7	58.5	55.1
Iran, Islamic Rep. of	2003	395	41.8	41.8	12.3	29.1	16.7	0.0	0.0	47.3	38.3
	2007	577	29.8	29.8	10.6	25.9	31.1	2.1	0.4	34.7	25.8
Israel	2003	339	48.3	48.3	8.0	25.7	18.0	0.0	0.0	45.3	51.6
	2007	463	35.5	35.5	10.0	30.3	17.2	5.8	1.2	36.7	34.0
Italy	2003	347	44.0	44.0	3.7	19.2	33.2	0.0	0.0	42.0	46.2
	2007	634	39.5	39.5	8.8	17.1	30.1	4.4	0.1	40.7	38.3
Japan	2003	392	35.9	35.9	9.9	31.3	22.9	0.0	0.0	31.4	40.7
	2007	610	31.9	31.9	13.1	29.8	24.0	1.1	0.2	32.1	31.7
Jordan	2003	367	68.2	68.2	6.1	14.8	10.9	0.0	0.0	76.2	61.0
	2007	747	66.5	66.5	3.3	16.6	12.5	0.8	0.2	71.0	62.3
Korea, Rep. of	2003	444	53.2	53.2	9.5	23.9	13.4	0.0	0.0	52.2	54.0
	2007	606	58.8	58.8	3.9	22.0	15.1	0.1	0.0	57.9	59.7
Lebanon	2003	304	30.2	30.2	9.3	39.5	21.0	0.0	0.0	34.4	25.4
	2007	533	27.5	27.5	6.8	36.7	22.5	5.0	1.4	27.9	27.1

DIFF = Percent correct
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Science: Biology / Knowing (S032645 - S09_02)
 Label: True statement about producers
 Type: MC Key: A

COUNTRY	Year	N	DIFF	A	B	C	D	OMIT TED	NOT REACH ED	1.GIRL %Right	2.BOY %Right
Lithuania	2003	372	61.1	61.1	3.1	12.5	23.3	0.0	0.0	60.1	61.9
	2007	564	54.9	54.9	2.6	13.7	27.5	1.2	0.0	57.5	52.4
Malaysia	2003	441	83.1	83.1	2.4	4.9	9.6	0.0	0.0	84.3	82.0
	2007	634	65.3	65.3	4.7	14.3	14.4	0.4	0.9	67.5	63.0
Norway	2003	316	43.0	43.0	6.9	18.9	31.3	0.0	0.0	46.1	40.5
	2007	676	45.8	45.8	5.7	15.6	30.7	2.2	0.0	50.0	41.4
Palestinian Nat'l Auth.	2003	429	37.9	37.9	9.7	27.8	24.5	0.0	0.0	40.2	35.1
	2007	631	35.7	35.7	6.4	25.5	30.4	1.8	0.2	38.0	33.4
Romania	2003	330	40.0	40.0	8.7	25.7	25.6	0.0	0.0	36.9	43.4
	2007	601	36.3	36.3	7.7	31.3	22.7	1.9	0.1	38.5	34.2
Russian Federation	2003	366	38.5	38.5	15.2	20.3	26.1	0.0	0.0	37.4	39.5
	2007	650	41.1	41.1	9.7	25.0	21.4	2.4	0.4	39.6	42.6
Scotland	2003	279	51.9	51.9	9.0	25.3	13.8	0.0	0.0	52.2	51.6
	2007	560	48.8	48.8	5.4	25.6	18.0	1.5	0.8	48.8	48.8
Serbia	2003	340	48.6	48.6	9.3	22.1	20.0	0.0	0.0	47.3	49.9
	2007	583	59.8	59.8	9.4	12.8	15.3	2.6	0.0	59.4	60.3
Singapore	2003	503	79.3	79.3	3.1	11.3	6.3	0.0	0.0	83.4	75.6
	2007	658	76.7	76.7	3.8	10.7	8.5	0.0	0.2	78.5	75.3
Slovenia	2003	296	50.2	50.2	5.7	10.7	33.4	0.0	0.0	53.3	47.4
	2007	588	68.6	68.6	5.2	6.1	18.7	1.3	0.0	67.5	69.6
Sweden	2003	331	35.8	35.8	9.5	37.1	17.6	0.0	0.0	36.7	34.9
	2007	751	42.5	42.5	5.4	29.9	19.4	2.8	0.0	39.6	45.0
Tunisia	2003	354	18.9	18.9	11.4	40.6	29.2	0.0	0.0	18.0	19.8
	2007	589	23.8	23.8	7.6	28.0	34.9	4.5	1.2	21.2	26.3
United States	2003	732	49.6	49.6	9.5	22.0	18.9	0.0	0.0	46.0	53.3
	2007	1033	57.8	57.8	6.7	19.3	14.7	1.2	0.2	59.2	56.4
International Avg.	2003	382	48.2	48.2	7.7	25.0	19.1	0.0	0.0	48.6	47.9
	2007	629	47.8	47.8	6.9	23.1	19.3	2.4	0.4	48.7	47.0
Basque Country, Spain	2003	200	29.9	29.9	9.8	30.0	30.3	0.0	0.0	29.8	30.0
	2007	323	38.5	38.5	6.5	19.8	30.6	4.1	0.5	36.2	40.4
Ontario, Canada	2003	341	61.0	61.0	3.6	17.8	17.6	0.0	0.0	60.0	61.9
	2007	499	56.2	56.2	5.1	18.5	18.8	1.5	0.0	52.9	59.4
Quebec, Canada	2003	359	37.8	37.8	8.9	27.0	26.3	0.0	0.0	34.1	41.4
	2007	573	27.3	27.3	6.7	30.8	30.9	3.1	1.1	27.6	26.9

DIFF = Percent correct
 Because of missing gender information, some totals may appear inconsistent.

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COUNTRY	Year	N	10	11	12	19	70	71	79	OMIT TED	NOT REACH ED	V1	1.GIRL %Right	2.BOY %Right
Armenia	2003	293	41.8	13.8	0.9	17.0	4.1	16.0	6.3	0.0	0.0	73.6	72.3	75.3
	2007	684	44.7	11.0	5.3	1.1	3.4	14.0	6.0	14.5	0.0	62.1	65.0	59.3
Australia	2003	280	41.2	8.9	3.8	0.0	9.6	12.0	24.4	0.0	0.0	53.9	49.7	58.7
	2007	578	26.7	7.5	1.3	0.5	5.4	13.4	18.9	26.2	0.0	36.0	39.2	32.9
Bahrain	2003	282	34.9	1.1	12.5	0.3	13.4	26.3	11.6	0.0	0.0	48.8	48.7	48.9
	2007	618	30.5	0.8	8.2	0.6	8.1	22.7	14.1	13.9	0.9	40.2	46.1	34.5
Botswana	2003	349	23.0	11.9	6.8	0.5	2.4	25.5	29.9	0.0	0.0	42.1	41.0	43.4
	2007	596	15.5	10.7	4.6	0.0	1.3	23.3	33.8	8.7	2.2	30.7	38.3	23.1
Bulgaria	2003	265	38.2	19.3	3.1	6.7	3.3	14.0	15.5	0.0	0.0	67.2	70.7	63.3
	2007	443	30.8	16.6	1.5	0.0	7.6	11.4	5.2	26.8	0.0	48.9	56.5	42.9
Chinese Taipei	2003	424	52.6	0.2	8.8	2.0	5.3	24.1	7.1	0.0	0.0	63.5	67.3	59.9
	2007	581	48.4	1.2	5.8	0.0	7.1	19.6	10.6	7.3	0.0	55.4	56.2	54.6
Cyprus	2003	258	37.7	5.3	7.6	1.7	10.4	21.6	15.8	0.0	0.0	52.3	56.4	47.1
	2007	629	33.1	3.6	5.3	0.0	4.3	19.3	15.6	18.4	0.5	41.9	44.2	39.5
Egypt	2003	516	23.3	3.9	8.6	0.0	4.6	25.3	34.2	0.0	0.0	35.9	34.4	37.1
	2007	933	23.8	4.0	5.1	0.2	5.2	31.5	20.2	10.0	0.1	33.0	36.0	30.1
England	2003	184	47.7	11.6	2.5	0.0	4.6	14.2	19.4	0.0	0.0	61.8	63.9	59.7
	2007	569	39.3	18.4	1.7	0.1	5.4	10.2	11.3	13.2	0.2	59.6	57.8	61.4
Ghana	2003	250	21.8	6.2	6.3	0.1	5.4	11.5	48.6	0.0	0.0	34.4	27.9	39.6
	2007	760	15.9	3.8	4.2	0.0	2.1	11.1	31.9	29.2	1.7	24.0	19.8	27.8
Hong Kong SAR	2003	398	62.2	0.8	10.1	0.0	2.8	17.6	6.7	0.0	0.0	73.0	71.5	74.5
	2007	498	55.2	0.6	13.3	0.4	3.0	17.8	4.7	5.0	0.0	69.5	69.0	69.9
Hungary	2003	249	46.8	3.9	4.5	0.0	12.2	20.0	12.6	0.0	0.0	55.2	54.9	55.5
	2007	591	43.7	5.2	3.4	0.0	14.9	18.6	5.5	8.6	0.1	52.3	53.6	50.9
Indonesia	2003	301	17.5	5.3	1.8	0.8	3.9	11.5	59.2	0.0	0.0	25.4	24.4	26.4
	2007	600	15.0	5.6	1.4	0.8	2.7	9.5	45.7	18.6	0.7	22.8	24.0	21.6
Iran, Islamic Rep. of	2003	295	27.9	8.5	4.7	0.0	12.9	25.1	20.9	0.0	0.0	41.2	43.2	40.1
	2007	577	29.2	2.4	2.3	2.5	10.1	26.2	13.5	13.1	0.6	36.5	37.6	35.5
Israel	2003	281	48.6	8.7	6.9	0.0	8.2	15.0	12.6	0.0	0.0	64.2	63.0	65.4
	2007	463	44.2	5.3	3.5	0.2	4.5	10.8	11.3	18.9	1.3	53.2	61.3	43.7
Italy	2003	212	39.1	7.2	4.2	0.0	10.2	20.1	19.2	0.0	0.0	50.5	47.0	54.5
	2007	636	23.5	3.9	3.2	0.0	7.6	15.5	11.2	35.0	0.3	30.5	26.8	34.0
Japan	2003	376	59.2	2.1	5.1	0.0	13.5	16.7	3.5	0.0	0.0	66.3	64.1	68.7
	2007	610	59.2	6.7	7.0	0.0	3.1	10.8	8.7	4.1	0.3	73.0	74.3	71.8
Jordan	2003	332	27.8	4.4	12.0	0.9	7.3	22.8	24.8	0.0	0.0	45.1	42.8	47.4
	2007	747	29.7	2.0	12.9	0.0	6.7	20.1	19.7	8.7	0.2	44.6	43.8	45.5
Korea, Rep. of	2003	379	46.6	7.2	6.1	0.0	20.1	13.2	6.9	0.0	0.0	59.9	60.2	59.5
	2007	606	53.7	5.8	5.9	0.0	9.8	9.3	6.2	9.2	0.0	65.5	70.6	60.8
Lebanon	2003	145	34.1	2.8	11.5	0.0	2.4	17.5	31.7	0.0	0.0	48.3	61.1	34.0
	2007	541	22.4	0.9	5.2	0.0	3.8	7.6	19.6	38.5	2.0	28.5	30.7	25.9

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COUNTRY	Year	N	10	11	12	19	70	71	79	OMIT TED	NOT REACH ED	V1	1.GIRL %Right	2.BOY %Right
Lithuania	2003	365	54.7	13.3	1.9	1.3	7.5	11.0	10.3	0.0	0.0	71.3	74.3	68.9
	2007	567	54.8	11.9	1.2	0.0	12.1	10.6	3.4	5.8	0.0	68.0	72.3	63.7
Malaysia	2003	386	48.7	0.8	7.9	1.0	2.8	28.5	10.2	0.0	0.0	58.4	55.9	60.9
	2007	634	40.7	1.8	8.4	0.0	2.2	21.8	14.8	9.4	0.9	50.9	57.3	44.1
Norway	2003	305	52.6	6.4	2.7	0.0	14.6	15.1	8.6	0.0	0.0	61.6	59.7	63.1
	2007	676	52.5	6.7	2.1	0.0	11.3	15.2	6.2	5.8	0.2	61.3	63.0	59.6
Palestinian Nat'l Auth.	2003	371	32.0	0.6	8.6	0.2	8.5	27.1	23.0	0.0	0.0	41.4	44.1	37.8
	2007	631	26.4	1.1	6.6	0.0	3.9	25.0	25.8	10.7	0.4	34.1	37.4	31.0
Romania	2003	193	46.9	16.4	3.0	0.0	2.9	15.7	15.2	0.0	0.0	66.3	66.5	66.0
	2007	602	35.9	15.0	0.9	0.2	5.5	3.7	11.1	27.3	0.3	52.0	61.5	43.1
Russian Federation	2003	351	43.4	19.5	4.0	0.0	9.1	14.7	9.3	0.0	0.0	66.9	67.9	66.0
	2007	650	42.9	17.5	2.9	0.1	8.4	14.0	5.5	8.4	0.4	63.4	66.0	60.6
Scotland	2003	204	37.4	14.7	4.8	0.0	5.9	10.9	26.4	0.0	0.0	56.8	59.2	54.1
	2007	560	24.7	13.9	1.4	1.0	2.3	10.5	15.3	30.2	0.8	40.9	42.0	39.7
Serbia	2003	297	44.7	8.6	1.5	0.7	9.1	25.3	9.9	0.0	0.0	55.6	53.2	58.1
	2007	588	39.8	7.4	1.6	0.2	7.5	23.4	4.9	15.3	0.0	49.0	50.0	48.0
Singapore	2003	433	53.2	9.8	8.5	0.0	2.1	9.0	17.4	0.0	0.0	71.5	74.1	68.9
	2007	658	40.9	23.5	4.2	0.0	1.9	10.3	10.4	8.5	0.2	68.6	72.7	65.0
Slovenia	2003	278	43.6	14.7	3.0	0.0	8.5	22.7	7.5	0.0	0.0	61.3	68.6	54.4
	2007	588	48.3	14.3	3.5	0.0	7.1	20.2	4.7	2.0	0.0	66.1	65.9	66.3
Sweden	2003	312	54.7	5.1	7.5	0.0	12.5	11.7	8.4	0.0	0.0	67.4	73.1	60.7
	2007	751	56.5	4.2	5.8	0.1	10.5	12.2	4.5	6.1	0.0	66.7	71.3	62.6
Tunisia	2003	309	35.0	12.2	15.9	4.3	4.4	3.2	25.0	0.0	0.0	67.3	68.7	65.7
	2007	589	17.9	10.5	11.7	3.4	1.9	2.9	33.4	16.9	1.4	43.4	39.3	47.5
United States	2003	569	38.1	6.7	2.6	0.0	9.8	12.3	30.4	0.0	0.0	47.5	49.3	45.8
	2007	1033	33.0	4.5	1.2	0.0	8.0	11.8	21.8	19.2	0.4	38.8	39.0	38.6
International Avg.	2003	316	41.1	7.9	6.0	1.1	7.7	17.5	18.6	0.0	0.0	56.2	56.9	55.4
	2007	630	36.3	7.5	4.6	0.3	6.0	15.3	14.4	15.0	0.5	48.8	51.2	46.5
Basque Country, Spain	2003	146	43.8	3.9	4.7	0.5	3.4	26.8	16.9	0.0	0.0	52.9	56.4	50.1
	2007	323	23.7	2.0	2.8	1.0	4.6	19.6	14.9	30.9	0.5	29.4	30.9	28.2
Ontario, Canada	2003	224	41.5	8.7	2.0	0.0	5.1	18.0	24.6	0.0	0.0	52.2	56.9	48.7
	2007	499	29.5	5.9	1.6	0.0	10.0	6.5	19.4	27.1	0.0	37.1	36.3	37.8
Quebec, Canada	2003	309	58.7	4.5	4.0	0.0	10.9	12.7	9.2	0.0	0.0	67.2	66.4	68.0
	2007	573	54.0	5.5	1.8	0.0	6.9	10.1	7.1	13.4	1.2	61.3	61.1	61.5

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COUNTRY	Year	N	10	11	12	19	70	71	79	OMIT TED	NOT REACH ED	V1	1.GIRL %Right	2.BOY %Right
Armenia	2003	272	34.0	8.2	1.3	16.3	11.5	19.2	9.5	0.0	0.0	59.8	63.2	55.1
	2007	684	18.2	12.1	8.1	21.5	2.8	8.1	10.0	19.2	0.0	59.8	63.2	56.5
Australia	2003	265	24.6	6.0	5.2	0.0	16.9	11.5	35.9	0.0	0.0	35.7	34.6	37.1
	2007	578	18.7	3.8	1.2	0.1	12.1	7.2	25.2	31.7	0.0	23.9	22.6	25.1
Bahrain	2003	273	36.9	2.3	11.7	1.0	13.3	16.1	18.7	0.0	0.0	51.9	56.0	46.8
	2007	618	26.8	1.2	13.0	0.2	12.2	13.3	16.3	16.1	0.9	41.2	49.2	33.4
Botswana	2003	333	19.3	5.8	15.0	0.6	6.6	15.8	36.9	0.0	0.0	40.7	44.2	36.7
	2007	596	16.1	6.8	11.3	0.0	4.1	7.6	41.7	10.2	2.2	34.2	42.4	25.9
Bulgaria	2003	240	26.1	24.9	3.2	8.7	5.6	9.3	22.2	0.0	0.0	62.9	61.0	65.0
	2007	443	25.8	18.3	4.3	0.2	7.6	6.8	5.7	31.2	0.0	48.7	56.5	42.4
Chinese Taipei	2003	412	34.5	2.4	22.6	5.5	8.2	15.6	11.2	0.0	0.0	65.0	65.6	64.3
	2007	581	32.4	1.0	16.5	0.5	14.7	11.8	13.4	9.7	0.0	50.4	55.9	44.8
Cyprus	2003	229	35.7	3.9	16.2	1.0	10.3	9.2	23.6	0.0	0.0	56.9	55.8	58.4
	2007	629	23.3	3.7	7.9	0.0	6.7	11.4	22.4	24.0	0.5	34.9	37.1	32.6
Egypt	2003	489	20.6	3.7	16.8	0.0	9.7	11.0	38.2	0.0	0.0	41.1	47.9	35.3
	2007	933	21.7	3.4	9.2	0.0	13.4	13.7	25.6	13.0	0.1	34.3	37.0	31.6
England	2003	176	30.6	12.5	8.6	0.0	10.6	13.6	24.2	0.0	0.0	51.7	56.8	47.0
	2007	569	24.2	9.7	4.6	0.3	11.8	8.2	24.4	16.5	0.2	38.8	45.7	31.8
Ghana	2003	231	18.0	5.7	11.3	0.0	4.0	7.0	54.0	0.0	0.0	35.0	34.9	35.2
	2007	760	12.1	3.6	6.7	0.0	3.4	5.1	34.6	32.9	1.7	22.3	18.6	25.8
Hong Kong SAR	2003	395	27.9	1.4	28.1	0.3	15.1	14.1	13.2	0.0	0.0	57.7	58.0	57.4
	2007	498	30.9	1.8	26.0	0.2	15.0	14.1	6.6	5.4	0.0	58.9	62.4	55.7
Hungary	2003	232	31.9	11.2	11.2	0.5	12.7	14.4	18.1	0.0	0.0	54.8	58.3	50.9
	2007	591	29.1	8.0	6.0	0.0	18.0	12.3	9.0	17.4	0.1	43.1	42.1	44.2
Indonesia	2003	283	8.1	4.7	1.8	1.2	3.6	7.8	72.8	0.0	0.0	15.9	16.9	14.7
	2007	599	8.4	4.0	2.2	0.7	1.6	5.9	55.6	21.0	0.7	15.3	15.0	15.7
Iran, Islamic Rep. of	2003	264	34.1	9.3	3.4	0.0	18.5	11.7	23.1	0.0	0.0	46.8	49.7	45.1
	2007	577	30.1	2.9	2.0	2.3	9.5	12.1	23.6	17.0	0.6	37.2	38.1	36.4
Israel	2003	265	28.9	8.8	12.0	0.4	19.1	7.7	23.1	0.0	0.0	50.1	50.1	50.1
	2007	463	17.9	9.0	9.7	0.1	13.6	9.6	16.2	22.7	1.3	36.7	40.9	31.7
Italy	2003	198	27.0	9.8	6.9	0.7	16.3	12.1	27.2	0.0	0.0	44.5	50.0	38.3
	2007	636	20.8	3.3	3.2	0.3	5.2	8.6	17.3	41.1	0.3	27.6	24.9	30.0
Japan	2003	366	33.7	3.9	5.9	0.0	37.4	12.3	6.8	0.0	0.0	43.5	44.7	42.3
	2007	610	27.4	12.5	14.6	0.0	5.5	9.9	24.0	5.8	0.3	54.5	52.0	56.7
Jordan	2003	316	29.1	4.3	14.5	0.5	8.5	13.3	29.8	0.0	0.0	48.4	48.8	47.9
	2007	747	25.4	2.3	15.6	0.0	12.4	10.8	22.0	11.5	0.2	43.2	48.2	38.4
Korea, Rep. of	2003	369	27.0	7.0	9.6	0.0	32.2	6.7	17.6	0.0	0.0	43.5	43.5	43.6
	2007	606	24.5	9.4	13.4	0.0	29.0	3.7	10.8	9.2	0.0	47.3	46.9	47.6
Lebanon	2003	131	20.7	2.4	17.2	0.4	18.3	2.9	38.2	0.0	0.0	40.6	47.6	32.3
	2007	541	8.8	1.3	9.4	0.0	9.8	3.6	22.4	42.7	2.0	19.5	22.4	16.3

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 Label: Conditions for germination
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COUNTRY	Year	N	10	11	12	19	70	71	79	OMIT TED	NOT REACH ED	V1	1.GIRL %Right	2.BOY %Right
Lithuania	2003	333	34.2	21.7	5.0	1.0	14.4	6.9	16.9	0.0	0.0	61.9	63.0	60.9
	2007	567	27.4	17.2	6.6	0.0	15.4	8.7	14.0	10.6	0.0	51.3	54.4	48.2
Malaysia	2003	368	30.5	1.4	23.0	2.3	7.6	14.4	20.7	0.0	0.0	57.2	62.5	51.9
	2007	634	20.6	1.4	17.2	0.2	7.8	9.2	29.0	13.7	0.9	39.4	43.8	34.8
Norway	2003	287	31.2	14.0	6.2	0.4	23.3	13.0	11.8	0.0	0.0	51.8	51.3	52.2
	2007	676	27.6	8.5	8.7	0.3	17.9	18.0	9.7	9.0	0.2	45.2	46.1	44.3
Palestinian Nat'l Auth.	2003	356	30.8	1.3	15.2	0.0	12.6	12.0	28.1	0.0	0.0	47.3	51.2	42.3
	2007	631	23.4	1.3	8.1	0.3	9.2	11.0	33.8	12.4	0.4	33.2	41.4	25.2
Romania	2003	171	29.4	22.3	4.5	0.0	13.8	9.9	20.1	0.0	0.0	56.2	50.5	61.6
	2007	602	14.6	17.7	3.4	0.1	9.9	3.4	17.2	33.3	0.3	35.9	43.1	29.1
Russian Federation	2003	334	35.7	21.5	6.4	0.7	13.8	8.7	13.2	0.0	0.0	64.4	65.0	63.8
	2007	650	34.5	19.5	4.2	0.0	12.2	6.7	10.9	11.6	0.4	58.1	56.7	59.7
Scotland	2003	182	28.1	12.1	3.1	0.0	10.2	15.6	30.9	0.0	0.0	43.3	48.7	37.3
	2007	560	20.6	8.3	2.7	1.1	4.7	6.1	22.2	33.7	0.8	32.6	34.3	30.7
Serbia	2003	281	33.1	17.1	5.0	0.8	14.9	17.3	11.8	0.0	0.0	56.0	56.5	55.5
	2007	588	29.6	9.1	5.3	0.3	10.8	13.6	10.3	21.0	0.0	44.3	48.6	40.1
Singapore	2003	421	25.5	9.8	19.2	0.0	7.7	6.4	31.3	0.0	0.0	54.5	56.3	52.8
	2007	658	27.9	14.5	13.3	0.0	6.3	6.9	19.8	11.1	0.2	55.7	58.9	53.0
Slovenia	2003	269	27.1	20.5	6.5	0.4	14.6	16.6	14.3	0.0	0.0	54.5	56.4	52.8
	2007	588	29.6	21.2	8.7	0.1	14.4	12.0	9.6	4.3	0.0	59.6	61.2	58.1
Sweden	2003	296	31.8	6.6	12.8	0.3	16.2	16.9	15.3	0.0	0.0	51.6	51.2	52.1
	2007	751	24.1	7.6	7.4	0.1	21.8	14.3	12.5	12.2	0.0	39.1	38.4	39.8
Tunisia	2003	298	25.0	10.0	16.7	5.7	6.5	1.0	35.0	0.0	0.0	57.5	58.7	56.1
	2007	589	15.0	10.2	9.7	1.5	3.0	1.4	37.7	20.1	1.4	36.3	35.8	36.9
United States	2003	546	26.5	5.9	6.1	0.5	15.6	9.5	35.9	0.0	0.0	39.0	42.0	36.1
	2007	1033	19.3	3.3	3.8	0.0	16.3	5.3	29.9	21.7	0.4	26.4	25.4	27.4
International Avg.	2003	299	28.4	9.2	10.7	1.5	13.6	11.5	25.1	0.0	0.0	49.7	51.5	47.8
	2007	630	22.9	7.8	8.6	0.9	10.8	9.1	20.7	18.6	0.5	40.3	42.7	37.9
Basque Country, Spain	2003	131	30.4	4.6	7.2	0.0	12.9	13.8	31.1	0.0	0.0	42.2	32.2	49.7
	2007	323	21.8	1.9	2.1	2.7	6.6	13.0	12.1	39.3	0.5	28.5	24.6	31.7
Ontario, Canada	2003	211	27.6	5.3	6.5	0.8	23.0	15.4	21.3	0.0	0.0	40.2	31.7	46.1
	2007	499	16.8	3.1	4.1	0.6	14.6	6.5	21.5	32.7	0.0	24.6	25.5	23.7
Quebec, Canada	2003	292	28.6	10.1	8.1	0.1	17.9	17.1	18.0	0.0	0.0	46.9	43.3	50.4
	2007	573	18.6	7.7	6.8	0.1	19.1	12.8	14.0	19.8	1.2	33.2	34.6	31.8

V1 = Percent scoring 1 or better V2 = Percent scoring 2 or better
 Percent right for boys and girls corresponds to the percent obtaining the maximum score on the item.
 Because of missing gender information, some totals may appear inconsistent.

Science: Biology / Knowing (S032530D - S09_03D)
 Label: Conditions for germination/DERIVED
 Type: CR Key: -

COUNTRY	Year	N	20	10	70	OMIT TED	NOT REACH ED	V1	V2	1.GIRL %Right	2.BOY %Right
Armenia	2003	294	35.4	57.1	7.5	0.0	0.0	92.5	35.4	36.4	33.9
	2007	684	44.7	32.5	8.4	14.4	0.0	77.2	44.7	47.0	42.5
Australia	2003	282	14.1	59.0	26.8	0.0	0.0	73.2	14.1	12.0	16.6
	2007	578	10.0	39.9	23.9	26.2	0.0	49.9	10.0	10.1	9.9
Bahrain	2003	282	18.9	61.2	19.9	0.0	0.0	80.1	18.9	20.8	16.5
	2007	618	16.6	48.2	20.6	13.7	0.9	64.8	16.6	19.3	13.9
Botswana	2003	349	18.3	44.6	37.1	0.0	0.0	62.9	18.3	18.3	18.2
	2007	596	18.0	29.0	42.3	8.5	2.2	47.0	18.0	22.9	13.0
Bulgaria	2003	265	39.2	44.8	16.0	0.0	0.0	84.0	39.2	37.4	41.2
	2007	443	31.6	34.3	7.2	26.8	0.0	65.9	31.6	37.1	27.3
Chinese Taipei	2003	425	34.5	57.5	8.0	0.0	0.0	92.0	34.5	37.4	31.6
	2007	581	21.4	63.1	8.4	7.1	0.0	84.5	21.4	23.3	19.4
Cyprus	2003	259	21.4	59.5	19.1	0.0	0.0	80.9	21.4	26.0	15.6
	2007	629	13.4	50.1	17.6	18.4	0.5	63.4	13.4	15.1	11.5
Egypt	2003	516	16.1	42.1	41.8	0.0	0.0	58.2	16.1	19.8	13.0
	2007	933	11.5	44.4	34.2	9.9	0.1	55.8	11.5	14.4	8.6
England	2003	184	27.7	55.8	16.5	0.0	0.0	83.5	27.7	28.6	26.8
	2007	569	25.1	48.3	13.3	13.2	0.2	73.3	25.1	28.8	21.2
Ghana	2003	254	17.4	31.3	51.3	0.0	0.0	48.7	17.4	17.5	17.3
	2007	760	12.5	21.4	35.4	29.1	1.7	33.9	12.5	10.5	14.3
Hong Kong SAR	2003	398	36.0	58.1	5.9	0.0	0.0	94.1	36.0	34.9	37.2
	2007	498	36.9	54.6	3.5	5.0	0.0	91.5	36.9	38.6	35.3
Hungary	2003	249	18.9	68.7	12.4	0.0	0.0	87.6	18.9	20.8	16.8
	2007	591	16.1	63.1	12.0	8.6	0.1	79.3	16.1	16.8	15.4
Indonesia	2003	301	4.9	30.5	64.6	0.0	0.0	35.4	4.9	6.2	3.6
	2007	599	7.8	22.6	51.2	17.7	0.7	30.4	7.8	7.7	7.8
Iran, Islamic Rep. of	2003	297	13.0	56.4	30.6	0.0	0.0	69.4	13.0	16.0	11.3
	2007	577	13.0	47.7	25.6	13.1	0.6	60.7	13.0	14.2	12.0
Israel	2003	281	25.4	61.0	13.6	0.0	0.0	86.4	25.4	22.5	28.2
	2007	463	22.5	44.8	12.7	18.7	1.3	67.3	22.5	28.6	15.5
Italy	2003	213	15.6	60.5	23.9	0.0	0.0	76.1	15.6	15.8	15.3
	2007	636	9.5	39.1	16.3	34.8	0.3	48.6	9.5	7.9	11.0
Japan	2003	376	13.7	81.1	5.1	0.0	0.0	94.9	13.7	11.4	16.2
	2007	610	35.8	56.0	3.9	4.1	0.3	91.7	35.8	34.1	37.3
Jordan	2003	332	19.8	51.6	28.7	0.0	0.0	71.3	19.8	16.8	22.9
	2007	747	20.8	46.2	24.0	8.7	0.2	67.0	20.8	22.5	19.2
Korea, Rep. of	2003	380	19.1	63.8	17.1	0.0	0.0	82.9	19.1	19.6	18.6
	2007	606	28.8	55.1	6.8	9.2	0.0	83.9	28.8	33.5	24.6
Lebanon	2003	145	23.4	38.6	38.0	0.0	0.0	62.0	23.4	31.8	14.0
	2007	541	10.1	27.8	21.6	38.5	2.0	37.9	10.1	11.4	8.6

V1 = Percent scoring 1 or better V2 = Percent scoring 2 or better
 Percent right for boys and girls corresponds to the percent obtaining the maximum score on the item.
 Because of missing gender information, some totals may appear inconsistent.

Science: Biology / Knowing (S032530D - S09_03D)
 Label: Conditions for germination/DERIVED
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COUNTRY	Year	N	20	10	70	OMIT TED	NOT REACH ED	V1	V2	1.GIRL %Right	2.BOY %Right
Lithuania	2003	365	36.3	54.6	9.1	0.0	0.0	90.9	36.3	38.6	34.6
	2007	567	31.8	55.6	6.9	5.7	0.0	87.4	31.8	35.0	28.7
Malaysia	2003	386	27.5	57.9	14.6	0.0	0.0	85.4	27.5	28.3	26.8
	2007	634	21.3	47.7	20.7	9.4	0.9	69.0	21.3	26.5	15.7
Norway	2003	305	23.3	63.3	13.4	0.0	0.0	86.6	23.3	26.8	20.6
	2007	676	20.4	65.8	8.0	5.6	0.2	86.2	20.4	20.1	20.6
Palestinian Nat'l Auth.	2003	372	16.0	54.5	29.4	0.0	0.0	70.6	16.0	18.5	12.7
	2007	631	11.8	43.7	34.0	10.1	0.4	55.5	11.8	13.5	10.1
Romania	2003	194	35.8	43.6	20.6	0.0	0.0	79.4	35.8	30.3	41.5
	2007	602	27.0	34.0	11.5	27.3	0.3	60.9	27.0	33.0	21.3
Russian Federation	2003	351	41.3	45.9	12.8	0.0	0.0	87.2	41.3	43.2	39.5
	2007	650	37.1	47.4	6.8	8.4	0.4	84.5	37.1	38.5	35.6
Scotland	2003	205	21.5	52.1	26.4	0.0	0.0	73.6	21.5	25.9	16.8
	2007	560	20.6	32.4	16.4	30.0	0.8	52.9	20.6	21.7	19.4
Serbia	2003	297	22.8	62.6	14.6	0.0	0.0	85.4	22.8	21.4	24.2
	2007	588	17.4	58.5	8.8	15.3	0.0	75.9	17.4	18.9	16.0
Singapore	2003	434	39.5	45.1	15.4	0.0	0.0	84.6	39.5	42.5	36.6
	2007	658	46.5	31.4	13.4	8.5	0.2	77.8	46.5	47.9	45.2
Slovenia	2003	278	27.0	60.2	12.9	0.0	0.0	87.1	27.0	30.7	23.3
	2007	588	36.2	53.3	8.5	2.0	0.0	89.5	36.2	37.7	34.8
Sweden	2003	313	24.5	67.1	8.3	0.0	0.0	91.7	24.5	27.3	21.3
	2007	751	20.3	65.3	8.5	6.0	0.0	85.6	20.3	21.6	19.1
Tunisia	2003	310	45.0	32.3	22.7	0.0	0.0	77.3	45.0	47.2	42.4
	2007	589	26.1	27.6	28.0	16.9	1.4	53.7	26.1	26.0	26.1
United States	2003	571	15.0	54.8	30.2	0.0	0.0	69.8	15.0	17.9	12.1
	2007	1033	9.6	45.9	24.9	19.2	0.4	55.5	9.6	9.7	9.6
International Avg.	2003	317	24.5	53.9	21.6	0.0	0.0	78.4	24.5	25.7	23.3
	2007	630	22.2	44.8	17.7	14.8	0.5	66.9	22.2	24.1	20.3
Basque Country, Spain	2003	146	12.3	67.2	20.5	0.0	0.0	79.5	12.3	6.8	16.7
	2007	323	7.7	42.6	18.4	30.9	0.5	50.3	7.7	8.1	7.4
Ontario, Canada	2003	224	17.9	54.4	27.7	0.0	0.0	72.3	17.9	15.3	19.8
	2007	499	10.5	40.8	21.7	27.1	0.0	51.2	10.5	10.3	10.6
Quebec, Canada	2003	310	23.2	64.9	12.0	0.0	0.0	88.0	23.2	20.8	25.5
	2007	573	17.7	59.1	9.0	13.1	1.2	76.8	17.7	15.9	19.5

V1 = Percent scoring 1 or better V2 = Percent scoring 2 or better
 Percent right for boys and girls corresponds to the percent obtaining the maximum score on the item.
 Because of missing gender information, some totals may appear inconsistent.

Science: Biology / Knowing (S032007 - S09_04)
 Label: One function of the uterus
 Type: CR Key: -

COUNTRY	Year	N	10	19	70	71	79	OMIT TED	NOT REACH ED	V1	1.GIRL %Right	2.BOY %Right
Armenia	2003	174	16.8	0.0	4.3	11.9	67.1	0.0	0.0	16.8	13.7	22.2
	2007	684	18.5	17.7	0.6	0.3	24.2	38.7	0.1	36.2	36.8	35.6
Australia	2003	315	65.6	0.2	15.1	0.9	18.0	0.0	0.0	65.9	61.3	71.0
	2007	578	57.9	0.2	12.9	2.4	6.5	20.1	0.0	58.1	59.6	56.7
Bahrain	2003	258	44.3	15.1	19.8	3.1	17.7	0.0	0.0	59.3	70.0	47.6
	2007	618	46.8	1.4	19.5	3.2	10.7	17.3	1.2	48.2	68.8	28.4
Botswana	2003	354	47.2	0.0	20.5	6.3	25.9	0.0	0.0	47.2	47.3	47.1
	2007	596	35.6	0.3	16.9	3.8	32.6	8.4	2.3	36.0	45.2	26.6
Bulgaria	2003	225	57.2	7.8	9.1	0.2	25.7	0.0	0.0	65.0	71.9	57.5
	2007	443	39.7	5.5	19.2	0.5	6.9	28.2	0.0	45.2	54.4	37.9
Chinese Taipei	2003	388	49.1	7.0	36.5	0.2	7.2	0.0	0.0	56.1	60.1	52.2
	2007	581	56.4	0.2	28.9	0.3	5.1	9.1	0.0	56.6	62.8	50.0
Cyprus	2003	174	27.2	1.2	38.8	5.1	27.6	0.0	0.0	28.4	35.2	22.1
	2007	629	14.2	0.3	29.4	0.9	13.1	41.5	0.5	14.6	15.2	13.9
Egypt	2003	509	66.3	3.2	11.0	0.7	18.8	0.0	0.0	69.5	74.6	65.1
	2007	933	56.6	0.7	7.6	1.0	16.6	17.4	0.1	57.3	65.1	49.7
England	2003	191	69.9	0.0	20.8	0.0	9.3	0.0	0.0	69.9	71.1	68.6
	2007	569	60.2	0.9	16.6	0.6	9.8	11.7	0.2	61.1	65.0	57.0
Ghana	2003	193	34.2	2.5	6.1	3.0	54.2	0.0	0.0	36.7	34.2	38.8
	2007	760	21.0	0.1	4.0	1.6	30.3	41.0	2.0	21.2	20.7	21.7
Hong Kong SAR	2003	371	61.1	0.6	32.1	0.6	5.7	0.0	0.0	61.6	66.1	57.2
	2007	498	43.8	1.2	22.6	1.9	20.4	10.1	0.0	45.0	46.9	43.2
Hungary	2003	162	48.5	1.0	21.1	0.0	29.5	0.0	0.0	49.4	48.1	50.7
	2007	591	28.9	1.6	6.0	0.1	27.2	36.0	0.1	30.5	32.8	28.1
Indonesia	2003	307	21.3	2.9	27.0	1.9	46.9	0.0	0.0	24.3	26.2	22.0
	2007	596	25.5	0.6	14.8	0.7	42.6	15.1	0.7	26.1	29.5	22.6
Iran, Islamic Rep. of	2003	252	43.3	20.3	20.3	1.5	14.6	0.0	0.0	63.6	62.1	64.5
	2007	577	34.2	1.8	13.6	1.4	13.9	34.6	0.6	35.9	35.9	35.9
Israel	2003	294	85.3	0.6	4.4	0.0	9.6	0.0	0.0	86.0	85.8	86.1
	2007	463	59.3	1.2	5.5	0.2	11.0	21.2	1.6	60.5	65.8	54.4
Italy	2003	233	67.6	1.0	18.2	0.6	12.6	0.0	0.0	68.6	71.4	65.2
	2007	636	40.1	0.4	18.4	2.4	7.7	30.4	0.6	40.5	44.2	37.0
Japan	2003	320	58.0	0.3	24.1	0.6	17.1	0.0	0.0	58.3	62.0	54.2
	2007	610	52.5	0.5	12.3	0.6	17.1	16.4	0.5	53.1	56.9	49.6
Jordan	2003	312	54.7	9.4	8.8	1.9	25.2	0.0	0.0	64.1	73.9	54.6
	2007	747	46.9	1.6	5.8	1.4	31.0	13.0	0.2	48.5	52.7	44.5
Korea, Rep. of	2003	414	69.8	0.4	23.1	1.2	5.5	0.0	0.0	70.2	73.0	67.8
	2007	606	52.7	0.2	31.8	1.7	6.3	7.4	0.0	52.9	52.2	53.5
Lebanon	2003	100	41.7	7.5	8.8	5.9	36.2	0.0	0.0	49.1	45.3	52.6
	2007	541	19.6	0.5	5.3	2.5	16.6	53.4	2.1	20.1	22.0	17.9

V1 = Percent scoring 1 or better V2 = Percent scoring 2 or better
 Percent right for boys and girls corresponds to the percent obtaining the maximum score on the item.
 Because of missing gender information, some totals may appear inconsistent.

Science: Biology / Knowing (S032007 - S09_04)
 Label: One function of the uterus
 Type: CR Key: -

COUNTRY	Year	N	10	19	70	71	79	OMIT TED	NOT REACH ED	V1	1.GIRL %Right	2.BOY %Right
Lithuania	2003	241	76.1	1.3	5.5	0.3	16.8	0.0	0.0	77.4	83.8	72.0
	2007	567	47.1	0.6	16.0	0.4	8.3	27.5	0.0	47.7	50.6	44.9
Malaysia	2003	287	27.1	1.5	27.7	10.3	33.4	0.0	0.0	28.6	28.4	28.8
	2007	634	16.9	0.6	21.3	2.3	34.6	23.3	1.1	17.5	20.4	14.3
Norway	2003	250	60.8	0.0	22.7	0.0	16.5	0.0	0.0	60.8	55.4	64.7
	2007	676	47.1	0.1	13.1	0.0	16.7	22.8	0.2	47.2	49.4	45.0
Palestinian Nat'l Auth.	2003	328	47.2	4.3	21.8	0.8	25.8	0.0	0.0	51.5	60.6	40.2
	2007	631	32.9	4.4	14.1	0.7	31.2	16.3	0.4	37.3	46.6	28.2
Romania	2003	179	54.4	2.6	24.0	2.2	16.8	0.0	0.0	57.0	58.6	55.4
	2007	602	35.3	0.6	3.6	1.8	24.4	34.0	0.3	35.9	43.1	29.2
Russian Federation	2003	235	62.2	1.3	23.4	0.0	13.2	0.0	0.0	63.5	66.4	60.5
	2007	650	44.0	0.5	21.1	1.1	5.6	27.3	0.5	44.5	47.8	41.0
Scotland	2003	220	65.7	0.0	23.0	0.6	10.7	0.0	0.0	65.7	68.6	62.8
	2007	560	46.9	0.3	14.4	0.8	11.2	25.6	0.8	47.3	48.7	45.8
Serbia	2003	221	61.3	4.9	13.6	0.0	20.2	0.0	0.0	66.2	61.6	70.5
	2007	588	36.8	2.3	14.7	0.7	6.9	38.7	0.0	39.1	44.7	33.5
Singapore	2003	454	71.4	0.2	17.8	1.1	9.4	0.0	0.0	71.6	76.8	66.5
	2007	658	67.7	0.5	10.6	0.7	12.2	8.1	0.2	68.2	74.6	62.7
Slovenia	2003	251	78.3	1.2	5.9	0.0	14.6	0.0	0.0	79.5	84.0	75.4
	2007	588	61.8	0.0	12.1	0.0	12.2	13.9	0.0	61.8	69.7	54.2
Sweden	2003	267	62.2	0.3	18.6	0.0	18.9	0.0	0.0	62.5	63.1	61.7
	2007	751	53.1	1.9	11.6	0.0	10.9	22.5	0.0	55.0	60.6	50.2
Tunisia	2003	236	33.5	3.2	7.3	1.6	54.4	0.0	0.0	36.7	40.8	32.1
	2007	589	17.0	1.5	17.6	1.2	32.6	27.7	2.4	18.5	16.0	20.9
United States	2003	592	60.7	0.6	17.5	4.7	16.5	0.0	0.0	61.3	63.3	59.2
	2007	1033	48.3	0.6	22.2	3.4	11.1	14.0	0.4	48.9	52.5	45.4
International Avg.	2003	282	54.2	3.1	18.1	2.0	22.5	0.0	0.0	57.3	59.5	55.1
	2007	630	41.4	1.5	14.7	1.2	17.2	23.4	0.6	42.9	47.2	38.8
Basque Country, Spain	2003	131	71.1	0.0	18.4	2.1	8.3	0.0	0.0	71.1	80.1	64.7
	2007	323	42.3	0.0	7.8	2.3	17.4	29.7	0.5	42.3	48.3	37.4
Ontario, Canada	2003	260	62.8	0.1	20.7	2.0	14.5	0.0	0.0	62.8	64.7	61.4
	2007	499	49.7	0.7	16.0	3.3	13.4	16.8	0.0	50.4	49.5	51.3
Quebec, Canada	2003	277	58.4	1.4	22.9	1.7	15.5	0.0	0.0	59.8	60.8	58.9
	2007	573	38.4	1.1	19.6	1.5	13.4	24.6	1.3	39.5	43.8	35.3

V1 = Percent scoring 1 or better V2 = Percent scoring 2 or better
 Percent right for boys and girls corresponds to the percent obtaining the maximum score on the item.
 Because of missing gender information, some totals may appear inconsistent.

Science: Chemistry / Applying (S032502 - S09_05)
 Label: Diagram representing water molecules
 Type: MC Key: C

COUNTRY	Year	N	DIFF	A	B	C	D	OMIT TED	NOT REACH ED	1.GIRL %Right	2.BOY %Right
Armenia	2003	392	41.3	37.8	5.9	41.3	15.0	0.0	0.0	45.2	37.2
	2007	683	51.0	17.0	2.6	51.0	17.0	12.3	0.1	47.9	54.1
Australia	2003	407	38.9	31.2	7.2	38.9	22.7	0.0	0.0	36.2	41.7
	2007	578	36.6	32.2	4.0	36.6	25.9	1.2	0.0	34.7	38.5
Bahrain	2003	327	39.7	21.6	13.4	39.7	25.3	0.0	0.0	42.5	36.5
	2007	618	29.8	21.8	13.8	29.8	29.9	3.5	1.2	35.1	24.7
Botswana	2003	423	8.3	67.2	7.9	8.3	16.6	0.0	0.0	7.8	8.8
	2007	596	13.6	57.8	7.5	13.6	15.6	2.8	2.8	10.4	16.9
Bulgaria	2003	308	46.3	26.2	4.5	46.3	23.0	0.0	0.0	47.8	44.7
	2007	443	48.9	17.7	5.8	48.9	21.7	5.8	0.1	49.6	48.3
Chinese Taipei	2003	439	72.0	8.6	4.8	72.0	14.6	0.0	0.0	71.6	72.3
	2007	581	63.1	10.4	4.1	63.1	22.3	0.1	0.0	62.3	63.8
Cyprus	2003	325	41.9	27.1	10.2	41.9	20.9	0.0	0.0	43.0	40.7
	2007	629	49.1	21.4	9.0	49.1	17.8	2.0	0.6	49.4	48.8
Egypt	2003	577	27.5	33.1	13.1	27.5	26.4	0.0	0.0	24.8	29.7
	2007	932	37.9	23.2	12.2	37.9	25.4	1.1	0.2	34.6	41.0
England	2003	226	33.7	36.6	10.2	33.7	19.5	0.0	0.0	28.2	39.3
	2007	569	42.5	25.1	5.0	42.5	26.4	0.8	0.2	39.0	46.1
Ghana	2003	402	14.9	50.3	11.3	14.9	23.5	0.0	0.0	9.7	19.5
	2007	759	14.9	48.3	11.2	14.9	16.8	6.7	2.1	13.4	16.3
Hong Kong SAR	2003	408	24.0	45.3	10.0	24.0	20.7	0.0	0.0	19.3	28.7
	2007	498	29.0	38.6	11.8	29.0	20.2	0.5	0.0	29.8	28.3
Hungary	2003	269	67.6	9.9	7.2	67.6	15.3	0.0	0.0	63.1	72.9
	2007	591	71.1	11.0	4.1	71.1	13.3	0.4	0.1	70.5	71.7
Indonesia	2003	463	9.9	46.9	14.9	9.9	28.3	0.0	0.0	8.2	11.7
	2007	600	14.8	49.9	12.2	14.8	18.8	3.7	0.7	11.7	17.9
Iran, Islamic Rep. of	2003	390	47.5	27.9	4.7	47.5	19.9	0.0	0.0	54.9	42.6
	2007	577	49.7	25.8	4.5	49.7	18.5	0.4	1.1	53.2	46.8
Israel	2003	337	47.2	23.9	6.4	47.2	22.5	0.0	0.0	44.5	50.0
	2007	463	38.9	26.4	8.6	38.9	19.8	4.4	1.9	40.7	36.9
Italy	2003	347	43.4	26.3	5.9	43.4	24.4	0.0	0.0	38.6	48.8
	2007	636	44.2	23.0	6.7	44.2	22.3	3.2	0.6	46.3	42.3
Japan	2003	396	77.1	7.9	3.3	77.1	11.7	0.0	0.0	75.0	79.2
	2007	610	75.7	6.7	3.2	75.7	12.8	1.1	0.5	74.8	76.6
Jordan	2003	364	30.2	35.1	12.3	30.2	22.4	0.0	0.0	34.4	26.4
	2007	747	36.3	25.0	14.6	36.3	19.9	4.0	0.2	37.5	35.2
Korea, Rep. of	2003	446	43.5	34.5	8.1	43.5	13.9	0.0	0.0	38.5	47.8
	2007	606	43.1	33.0	9.7	43.1	14.2	0.0	0.0	39.4	46.4
Lebanon	2003	313	40.7	23.6	8.9	40.7	26.8	0.0	0.0	44.2	36.4
	2007	536	39.7	23.8	7.7	39.7	23.4	3.4	2.1	39.0	40.4

DIFF = Percent correct
 Because of missing gender information, some totals may appear inconsistent.

Science: Chemistry / Applying (S032502 - S09_05)
 Label: Diagram representing water molecules
 Type: MC Key: C

COUNTRY	Year	N	DIFF	A	B	C	D	OMIT TED	NOT REACH ED	1.GIRL %Right	2.BOY %Right
Lithuania	2003	372	63.4	24.4	2.6	63.4	9.6	0.0	0.0	62.0	64.5
	2007	567	58.9	21.8	6.0	58.9	10.8	2.5	0.0	61.2	56.7
Malaysia	2003	433	45.3	27.4	5.0	45.3	22.3	0.0	0.0	48.9	41.9
	2007	634	45.1	32.2	5.8	45.1	15.3	0.5	1.1	47.6	42.5
Norway	2003	322	28.4	38.0	9.7	28.4	23.9	0.0	0.0	30.1	27.1
	2007	676	31.7	37.1	6.0	31.7	22.4	2.3	0.4	30.2	33.3
Palestinian Nat'l Auth.	2003	420	26.4	33.5	16.1	26.4	24.1	0.0	0.0	25.7	27.3
	2007	631	26.5	30.7	16.8	26.5	23.8	1.8	0.4	25.0	28.1
Romania	2003	338	35.4	34.9	8.5	35.4	21.2	0.0	0.0	36.2	34.5
	2007	602	39.8	27.0	7.9	39.8	23.5	1.4	0.3	33.9	45.4
Russian Federation	2003	386	70.2	10.8	3.8	70.2	15.2	0.0	0.0	62.5	77.6
	2007	650	66.8	12.7	5.0	66.8	13.7	1.2	0.7	65.8	67.8
Scotland	2003	276	27.0	43.8	4.5	27.0	24.7	0.0	0.0	25.5	28.6
	2007	560	26.8	42.7	7.0	26.8	21.9	0.9	0.8	26.6	27.1
Serbia	2003	345	55.0	22.9	6.3	55.0	15.8	0.0	0.0	54.1	55.9
	2007	585	43.2	22.0	10.1	43.2	19.5	5.2	0.0	43.3	43.0
Singapore	2003	501	61.8	16.3	3.6	61.8	18.3	0.0	0.0	64.5	59.4
	2007	658	56.5	17.0	4.1	56.5	21.6	0.6	0.2	60.3	53.3
Slovenia	2003	301	70.3	13.7	3.3	70.3	12.6	0.0	0.0	72.0	68.7
	2007	588	71.9	8.0	4.4	71.9	14.5	1.1	0.0	68.6	75.0
Sweden	2003	335	71.3	10.9	4.4	71.3	13.4	0.0	0.0	72.5	69.9
	2007	751	70.1	10.0	3.7	70.1	14.1	2.1	0.0	72.6	67.8
Tunisia	2003	377	11.7	56.1	10.4	11.7	21.7	0.0	0.0	11.3	12.2
	2007	589	16.3	45.9	6.9	16.3	24.7	3.4	2.7	12.5	20.0
United States	2003	727	50.1	25.7	5.5	50.1	18.7	0.0	0.0	42.7	57.8
	2007	1033	51.1	21.0	6.6	51.1	19.6	1.3	0.4	50.4	51.8
International Avg.	2003	385	42.8	29.7	7.7	42.8	19.8	0.0	0.0	42.0	43.6
	2007	630	43.5	26.2	7.5	43.5	19.6	2.5	0.7	43.0	44.0
Basque Country, Spain	2003	207	42.6	32.5	6.6	42.6	18.3	0.0	0.0	41.4	43.6
	2007	323	55.4	19.5	3.7	55.4	18.6	2.3	0.5	49.7	60.0
Ontario, Canada	2003	342	31.8	40.8	2.5	31.8	24.9	0.0	0.0	24.7	37.4
	2007	499	21.6	45.2	6.0	21.6	26.4	0.8	0.0	21.9	21.2
Quebec, Canada	2003	362	29.2	39.9	4.8	29.2	26.1	0.0	0.0	23.2	35.3
	2007	573	35.7	29.5	7.5	35.7	24.1	1.8	1.4	33.9	37.5

DIFF = Percent correct
 Because of missing gender information, some totals may appear inconsistent.

Science: Chemistry / Applying (S032679 - S09_06)
 Label: Energy released during a reaction
 Type: CR Key: -

COUNTRY	Year	N	10	11	12	19	70	71	79	OMIT TED	NOT REACH ED	V1	1.GIRL %Right	2.BOY %Right
Armenia	2003	120	18.3	0.0	0.0	42.5	0.0	1.1	38.1	0.0	0.0	60.8	65.5	53.9
	2007	683	21.8	0.4	2.5	7.3	1.9	4.9	18.4	42.7	0.1	32.0	34.6	29.5
Australia	2003	297	13.8	7.7	8.5	2.9	26.2	16.2	24.8	0.0	0.0	32.8	28.0	37.4
	2007	578	11.0	7.1	3.4	0.5	25.0	11.1	23.8	18.1	0.0	22.0	16.4	27.6
Bahrain	2003	164	7.8	11.9	5.9	7.2	9.2	2.8	55.2	0.0	0.0	32.9	30.4	36.2
	2007	618	3.3	2.2	4.6	2.7	11.4	2.5	36.9	35.1	1.3	12.8	16.1	9.6
Botswana	2003	296	6.5	1.7	8.3	2.2	2.1	3.0	76.1	0.0	0.0	18.8	20.1	17.3
	2007	596	1.8	1.4	2.3	0.7	1.4	1.2	66.6	21.1	3.5	6.2	7.4	4.9
Bulgaria	2003	120	20.2	1.5	1.7	7.9	4.8	1.0	62.9	0.0	0.0	31.3	29.6	33.0
	2007	443	13.9	0.4	3.2	0.6	2.9	0.5	21.0	57.4	0.1	18.1	19.9	16.7
Chinese Taipei	2003	325	25.3	0.7	23.8	1.5	3.8	0.3	44.7	0.0	0.0	51.3	46.1	56.4
	2007	581	32.0	1.8	5.6	1.8	2.3	2.0	30.4	23.9	0.0	41.3	44.5	38.0
Cyprus	2003	139	9.5	3.5	2.3	0.0	23.5	6.9	54.2	0.0	0.0	15.3	13.7	17.4
	2007	629	2.4	4.0	2.7	0.0	7.4	2.6	23.0	57.2	0.6	9.1	7.8	10.5
Egypt	2003	399	17.7	1.4	2.0	1.2	9.3	0.1	68.3	0.0	0.0	22.3	25.6	19.7
	2007	932	11.7	1.2	0.4	0.2	1.6	0.8	46.7	37.1	0.2	13.5	14.7	12.4
England	2003	194	15.6	6.0	6.6	0.3	46.1	12.2	13.3	0.0	0.0	28.5	19.6	38.3
	2007	569	11.1	3.1	4.7	0.8	36.1	11.3	21.6	11.0	0.2	19.7	17.0	22.5
Ghana	2003	163	3.2	0.0	5.0	0.2	0.9	3.3	87.4	0.0	0.0	8.4	11.1	6.6
	2007	760	3.6	0.0	1.1	0.4	1.2	0.8	37.9	52.6	2.3	5.2	4.1	6.2
Hong Kong SAR	2003	308	12.1	3.9	5.6	2.6	10.2	2.3	63.4	0.0	0.0	24.1	24.0	24.2
	2007	498	11.6	2.6	3.1	1.3	6.2	1.0	53.1	21.0	0.0	18.6	18.0	19.2
Hungary	2003	140	44.0	7.5	12.2	0.0	5.5	0.0	30.7	0.0	0.0	63.8	63.3	64.1
	2007	591	16.8	1.2	1.0	1.1	2.9	0.0	42.1	34.8	0.1	20.0	18.5	21.7
Indonesia	2003	168	3.3	0.6	0.0	2.6	0.9	0.0	92.6	0.0	0.0	6.5	3.4	9.5
	2007	600	2.3	0.1	0.6	0.8	0.3	0.0	65.4	29.5	0.9	3.9	4.6	3.2
Iran, Islamic Rep. of	2003	172	14.3	10.1	1.7	0.7	3.4	1.7	68.2	0.0	0.0	26.8	29.4	25.2
	2007	577	11.4	2.2	0.8	8.7	2.6	1.9	25.8	45.4	1.1	23.2	26.7	20.2
Israel	2003	156	21.7	3.7	5.7	1.5	15.2	1.9	50.1	0.0	0.0	32.7	30.0	35.7
	2007	463	7.7	1.4	0.8	0.3	2.2	0.0	26.8	58.9	1.9	10.3	10.6	9.9
Italy	2003	163	12.7	3.0	8.0	8.3	2.4	0.0	65.5	0.0	0.0	32.1	30.6	33.9
	2007	636	11.0	2.5	3.8	2.8	2.6	0.2	25.9	50.7	0.6	20.0	16.5	23.2
Japan	2003	202	11.8	4.4	14.5	0.0	9.8	6.9	52.6	0.0	0.0	30.7	24.0	37.0
	2007	610	8.9	0.8	8.0	0.0	3.0	3.7	36.3	38.7	0.5	17.8	18.7	16.9
Jordan	2003	217	16.4	3.0	7.7	3.9	13.4	3.7	51.9	0.0	0.0	31.0	30.8	31.3
	2007	747	11.0	1.6	5.4	1.2	7.7	0.3	45.9	26.7	0.2	19.2	21.0	17.6
Korea, Rep. of	2003	295	17.0	1.4	3.1	1.7	11.2	2.8	62.8	0.0	0.0	23.1	18.1	27.8
	2007	606	8.9	1.7	1.4	0.5	6.5	3.0	52.6	25.5	0.0	12.4	9.9	14.7
Lebanon	2003	107	14.6	2.1	6.4	0.8	24.3	11.8	40.1	0.0	0.0	23.8	17.3	29.2
	2007	540	4.3	0.7	1.3	1.4	5.6	2.4	28.6	53.6	2.1	7.7	7.8	7.5

V1 = Percent scoring 1 or better V2 = Percent scoring 2 or better
 Percent right for boys and girls corresponds to the percent obtaining the maximum score on the item.
 Because of missing gender information, some totals may appear inconsistent.

Science: Chemistry / Applying (S032679 - S09_06)
 Label: Energy released during a reaction
 Type: CR Key: -

COUNTRY	Year	N	10	11	12	19	70	71	79	OMIT TED	NOT REACH ED	V1	1.GIRL %Right	2.BOY %Right
Lithuania	2003	170	30.7	6.5	5.6	7.6	4.0	5.8	39.6	0.0	0.0	50.5	46.6	52.8
	2007	567	12.7	4.7	1.8	0.0	2.2	1.5	32.2	44.9	0.0	19.2	17.1	21.1
Malaysia	2003	248	7.8	3.6	10.7	1.4	11.7	3.0	61.7	0.0	0.0	23.5	22.2	24.8
	2007	634	4.7	2.5	2.2	1.3	5.4	3.6	49.1	30.2	1.1	10.7	10.2	11.2
Norway	2003	189	3.4	8.6	6.3	3.2	9.9	1.9	66.6	0.0	0.0	21.6	22.5	20.8
	2007	676	2.1	4.6	5.6	0.6	3.8	1.5	39.9	41.6	0.4	12.8	11.6	14.1
Palestinian Nat'l Auth.	2003	207	3.6	1.3	3.9	1.6	11.8	1.7	76.2	0.0	0.0	10.4	6.9	14.4
	2007	629	5.6	0.5	2.5	2.9	2.8	0.6	56.6	28.1	0.4	11.5	12.5	10.6
Romania	2003	98	38.6	1.0	1.0	0.5	3.7	0.0	55.1	0.0	0.0	41.1	37.4	45.1
	2007	602	11.9	0.3	0.5	0.0	1.3	0.1	24.2	61.4	0.3	12.7	12.5	12.9
Russian Federation	2003	167	37.1	0.8	2.4	5.0	6.1	0.4	48.2	0.0	0.0	45.2	43.1	47.1
	2007	650	14.5	1.5	2.0	1.7	2.0	0.5	33.3	43.6	0.8	19.7	17.1	22.4
Scotland	2003	219	9.6	6.9	11.8	0.6	42.5	9.9	18.7	0.0	0.0	28.9	28.1	29.7
	2007	560	10.9	4.6	5.1	0.1	28.4	13.4	14.7	22.1	0.8	20.6	19.2	22.2
Serbia	2003	128	18.7	2.5	7.5	2.8	8.6	0.8	59.1	0.0	0.0	31.5	26.7	35.1
	2007	588	9.5	1.3	2.0	0.3	6.4	0.1	17.4	62.6	0.3	13.1	12.0	14.2
Singapore	2003	425	24.2	1.2	12.4	0.5	15.8	17.3	28.6	0.0	0.0	38.3	32.9	43.6
	2007	658	21.9	3.5	9.4	0.6	13.4	6.4	32.3	12.2	0.2	35.4	31.5	38.8
Slovenia	2003	229	29.1	4.7	17.9	0.4	5.3	3.2	39.3	0.0	0.0	52.1	44.4	59.2
	2007	588	24.3	2.6	8.9	0.4	5.7	6.6	36.1	15.3	0.0	36.2	35.1	37.3
Sweden	2003	170	15.4	6.4	8.5	2.2	5.0	1.0	61.5	0.0	0.0	32.5	30.7	34.3
	2007	751	8.0	2.9	5.0	1.9	5.1	2.3	25.6	49.2	0.0	17.8	14.3	20.9
Tunisia	2003	113	3.5	0.9	2.5	7.3	0.0	0.9	84.9	0.0	0.0	14.2	15.5	12.4
	2007	589	3.1	0.5	1.6	0.8	1.2	0.2	38.8	51.1	2.7	6.0	5.5	6.5
United States	2003	613	9.0	10.7	9.1	1.1	26.0	8.6	35.4	0.0	0.0	30.0	25.8	34.3
	2007	1033	8.5	6.7	8.4	1.1	22.3	11.2	28.2	13.3	0.4	24.6	20.4	28.7
International Avg.	2003	216	16.3	3.9	6.9	3.7	11.3	4.0	53.9	0.0	0.0	30.8	28.6	33.0
	2007	630	10.4	2.2	3.4	1.4	7.0	3.0	35.1	36.9	0.7	17.4	16.8	18.0
Basque Country, Spain	2003	80	5.2	2.9	11.0	2.6	14.4	2.2	61.6	0.0	0.0	21.7	15.0	25.8
	2007	323	5.2	0.7	0.7	0.9	1.4	0.3	44.5	45.8	0.5	7.5	7.4	7.6
Ontario, Canada	2003	253	10.6	11.7	18.9	3.3	22.4	0.4	32.7	0.0	0.0	44.4	43.3	45.4
	2007	499	7.3	12.3	10.2	3.2	17.8	4.0	26.7	18.7	0.0	32.9	36.1	29.7
Quebec, Canada	2003	254	16.3	10.5	2.6	2.9	23.6	0.9	43.3	0.0	0.0	32.2	21.7	41.2
	2007	573	6.7	7.1	2.7	0.1	18.7	4.3	32.7	26.3	1.4	16.6	14.5	18.8

V1 = Percent scoring 1 or better V2 = Percent scoring 2 or better
 Percent right for boys and girls corresponds to the percent obtaining the maximum score on the item.
 Because of missing gender information, some totals may appear inconsistent.

Science: Physics / Applying (S032184 - S09_07)
 Label: Bulbs in series/parallel circuit
 Type: MC Key: D

COUNTRY	Year	N	DIFF	A	B	C	D	OMIT TED	NOT REACH ED	1.GIRL %Right	2.BOY %Right
Armenia	2003	389	47.7	25.7	10.7	15.9	47.7	0.0	0.0	50.2	45.2
	2007	678	58.0	10.8	6.9	14.1	58.0	9.9	0.2	60.9	55.2
Australia	2003	405	37.5	28.9	17.8	15.8	37.5	0.0	0.0	45.7	28.7
	2007	578	43.1	27.8	16.6	11.4	43.1	1.0	0.0	44.4	41.7
Bahrain	2003	329	52.0	15.8	20.4	11.8	52.0	0.0	0.0	59.8	44.2
	2007	618	43.9	22.9	19.5	10.4	43.9	1.7	1.5	54.9	33.3
Botswana	2003	429	40.3	11.3	15.0	33.4	40.3	0.0	0.0	34.7	46.4
	2007	596	42.2	14.7	15.5	19.9	42.2	1.8	5.8	43.0	41.3
Bulgaria	2003	299	37.5	24.8	18.7	19.0	37.5	0.0	0.0	41.0	33.9
	2007	443	40.1	20.5	19.8	14.2	40.1	5.2	0.2	39.6	40.4
Chinese Taipei	2003	438	46.7	24.6	16.3	12.4	46.7	0.0	0.0	53.1	40.6
	2007	.	.	.	.	.	.	.	.	.	.
Cyprus	2003	324	37.8	16.3	29.0	16.9	37.8	0.0	0.0	45.6	29.8
	2007	629	47.0	17.3	20.8	13.6	47.0	0.6	0.6	50.3	43.6
Egypt	2003	580	38.8	16.1	26.0	19.0	38.8	0.0	0.0	40.2	37.7
	2007	931	36.7	18.0	23.0	21.4	36.7	0.7	0.3	38.7	34.8
England	2003	228	61.9	19.1	10.3	8.7	61.9	0.0	0.0	67.5	56.4
	2007	569	55.5	20.7	11.4	11.5	55.5	0.6	0.2	57.9	53.0
Ghana	2003	424	37.3	21.0	16.7	25.0	37.3	0.0	0.0	37.6	37.0
	2007	760	29.9	19.7	22.0	23.4	29.9	1.7	3.2	30.2	29.7
Hong Kong SAR	2003	412	53.4	23.0	16.3	7.3	53.4	0.0	0.0	56.3	50.5
	2007	498	47.9	18.1	20.8	12.2	47.9	0.8	0.2	53.5	42.6
Hungary	2003	255	58.9	15.7	12.1	13.3	58.9	0.0	0.0	59.3	58.5
	2007	591	52.0	16.5	12.7	13.1	52.0	5.4	0.3	59.1	44.3
Indonesia	2003	473	36.7	27.6	22.6	13.1	36.7	0.0	0.0	34.5	38.9
	2007	600	33.6	22.6	25.1	16.7	33.6	0.9	1.1	30.4	37.0
Iran, Islamic Rep. of	2003	401	40.7	22.1	18.5	18.6	40.7	0.0	0.0	44.2	38.3
	2007	577	40.9	19.7	19.0	17.7	40.9	1.1	1.7	45.0	37.5
Israel	2003	348	44.8	23.9	18.6	12.7	44.8	0.0	0.0	50.0	39.0
	2007	463	45.9	19.1	18.7	10.4	45.9	3.4	2.5	46.1	45.6
Italy	2003	334	48.9	20.3	18.7	12.1	48.9	0.0	0.0	52.8	44.7
	2007	626	39.9	20.1	23.9	12.2	39.9	2.7	1.2	44.8	35.4
Japan	2003	395	73.3	9.4	9.2	8.1	73.3	0.0	0.0	78.5	67.8
	2007	610	64.5	15.0	10.0	8.4	64.5	1.2	0.9	72.4	57.3
Jordan	2003	363	46.3	18.4	19.0	16.3	46.3	0.0	0.0	58.2	35.5
	2007	746	40.8	24.5	15.9	17.2	40.8	1.4	0.3	51.9	30.2
Korea, Rep. of	2003	445	71.6	11.3	8.0	9.1	71.6	0.0	0.0	74.2	69.4
	2007	606	73.8	7.7	8.2	10.2	73.8	0.2	0.0	76.5	71.4
Lebanon	2003	315	46.8	18.6	18.8	15.8	46.8	0.0	0.0	49.8	43.2
	2007	519	48.8	14.2	17.0	14.7	48.8	3.3	2.1	52.4	44.8

DIFF = Percent correct
 Because of missing gender information, some totals may appear inconsistent.

Science: Physics / Applying (S032184 - S09_07)
 Label: Bulbs in series/parallel circuit
 Type: MC Key: D

COUNTRY	Year	N	DIFF	A	B	C	D	OMIT TED	NOT REACH ED	1.GIRL %Right	2.BOY %Right
Lithuania	2003	358	40.5	25.2	17.5	16.8	40.5	0.0	0.0	41.2	40.0
	2007	564	36.4	24.0	25.4	11.9	36.4	2.4	0.0	39.1	33.6
Malaysia	2003	434	45.3	28.3	13.7	12.8	45.3	0.0	0.0	46.9	43.8
	2007	634	46.7	24.8	16.3	10.0	46.7	1.2	1.1	52.9	40.0
Norway	2003	318	32.2	26.6	20.5	20.8	32.2	0.0	0.0	40.7	25.9
	2007	676	34.2	25.0	20.0	18.3	34.2	2.1	0.4	36.5	31.8
Palestinian Nat'l Auth.	2003	429	37.0	21.0	17.0	24.9	37.0	0.0	0.0	42.9	29.7
	2007	630	30.3	22.8	22.4	22.6	30.3	1.4	0.4	32.8	28.0
Romania	2003	328	59.9	15.5	15.5	9.1	59.9	0.0	0.0	64.5	54.7
	2007	600	50.7	17.5	17.1	13.2	50.7	1.1	0.4	56.0	45.7
Russian Federation	2003	374	54.1	14.2	16.3	15.4	54.1	0.0	0.0	53.7	54.5
	2007	650	50.0	16.7	16.6	11.9	50.0	2.9	1.9	52.9	47.0
Scotland	2003	282	53.2	24.4	14.2	8.2	53.2	0.0	0.0	51.7	54.7
	2007	560	48.2	22.3	17.8	9.3	48.2	1.7	0.8	53.2	42.8
Serbia	2003	329	40.5	23.0	23.7	12.8	40.5	0.0	0.0	50.5	30.9
	2007	574	37.6	17.6	22.4	16.5	37.6	5.0	0.9	41.6	33.5
Singapore	2003	503	61.8	15.3	12.3	10.6	61.8	0.0	0.0	68.1	56.0
	2007	658	65.2	14.9	11.2	8.0	65.2	0.3	0.4	68.7	62.2
Slovenia	2003	292	41.5	20.0	19.7	18.9	41.5	0.0	0.0	44.8	38.5
	2007	588	33.6	29.0	21.0	13.2	33.6	3.1	0.1	37.9	29.4
Sweden	2003	333	44.3	23.8	15.0	16.9	44.3	0.0	0.0	45.0	43.7
	2007	751	42.4	25.2	17.8	11.4	42.4	3.1	0.0	46.8	38.6
Tunisia	2003	338	41.3	21.1	16.6	21.1	41.3	0.0	0.0	40.4	42.3
	2007	589	41.6	17.6	11.5	16.9	41.6	9.0	3.5	43.5	39.7
United States	2003	724	40.6	26.3	19.7	13.3	40.6	0.0	0.0	44.9	36.2
	2007	1033	45.1	22.5	19.6	11.5	45.1	0.5	0.7	50.5	39.9
International Avg.	2003	383	47.0	20.6	17.1	15.3	47.0	0.0	0.0	50.6	43.5
	2007	630	45.2	19.7	17.7	14.0	45.2	2.4	1.0	48.9	41.6
Basque Country, Spain	2003	214	48.2	21.0	14.1	16.8	48.2	0.0	0.0	50.3	46.5
	2007	323	50.4	27.7	11.8	7.3	50.4	2.4	0.5	56.8	45.1
Ontario, Canada	2003	344	46.4	25.1	16.7	11.8	46.4	0.0	0.0	46.7	46.2
	2007	499	42.7	25.1	18.5	11.9	42.7	1.7	0.0	49.5	36.1
Quebec, Canada	2003	352	40.6	28.6	17.6	13.2	40.6	0.0	0.0	41.8	39.5
	2007	573	37.7	27.1	18.6	13.1	37.7	2.1	1.4	37.1	38.4

DIFF = Percent correct
 Because of missing gender information, some totals may appear inconsistent.

Science: Physics / Applying (S032394 - S09_08)

Label: Heat conduction through copper rod

Type: MC Key: C

COUNTRY	Year	N	DIFF	A	B	C	D	OMIT TED	NOT REACH ED	1.GIRL %Right	2.BOY %Right
Armenia	2003	358	74.6	8.0	9.9	74.6	7.5	0.0	0.0	78.4	70.5
	2007	682	70.9	5.5	7.9	70.9	7.4	8.2	0.2	68.5	73.2
Australia	2003	406	51.0	25.7	13.6	51.0	9.8	0.0	0.0	43.8	58.6
	2007	578	42.9	26.1	15.5	42.9	13.8	1.5	0.1	39.4	46.4
Bahrain	2003	338	57.8	18.5	11.6	57.8	12.1	0.0	0.0	60.1	55.5
	2007	618	45.1	12.5	9.2	45.1	30.1	1.6	1.5	50.8	39.6
Botswana	2003	433	34.3	29.9	23.8	34.3	12.0	0.0	0.0	28.6	40.4
	2007	596	39.7	22.3	19.0	39.7	10.3	2.0	6.6	37.2	42.2
Bulgaria	2003	309	66.3	13.7	6.2	66.3	13.8	0.0	0.0	64.4	68.2
	2007	443	64.3	14.4	9.8	64.3	7.4	4.0	0.2	62.3	65.8
Chinese Taipei	2003	440	90.3	2.3	1.8	90.3	5.7	0.0	0.0	90.5	90.1
	2007	581	90.5	3.6	1.2	90.5	4.4	0.2	0.0	91.9	89.1
Cyprus	2003	328	36.4	23.4	6.4	36.4	33.8	0.0	0.0	37.0	35.6
	2007	630	33.0	24.3	8.1	33.0	33.4	0.5	0.6	32.8	33.3
Egypt	2003	590	56.1	19.4	15.5	56.1	9.1	0.0	0.0	53.0	58.6
	2007	930	54.5	20.6	14.4	54.5	10.0	0.3	0.3	55.3	53.7
England	2003	226	60.2	14.0	16.2	60.2	9.6	0.0	0.0	60.1	60.4
	2007	569	56.0	12.6	19.7	56.0	10.8	0.8	0.2	58.3	53.6
Ghana	2003	424	32.9	28.4	22.7	32.9	16.1	0.0	0.0	33.3	32.5
	2007	760	40.8	19.6	22.9	40.8	11.6	1.7	3.5	36.0	45.1
Hong Kong SAR	2003	410	67.3	16.6	2.6	67.3	13.5	0.0	0.0	64.4	70.2
	2007	498	69.3	16.1	3.5	69.3	10.6	0.3	0.2	70.7	68.0
Hungary	2003	271	72.7	5.4	3.9	72.7	18.0	0.0	0.0	67.4	78.7
	2007	591	65.4	6.4	4.1	65.4	22.6	1.2	0.3	63.1	67.9
Indonesia	2003	475	37.9	5.0	33.2	37.9	23.8	0.0	0.0	35.0	41.1
	2007	600	36.3	6.0	39.1	36.3	16.9	0.6	1.1	34.5	38.2
Iran, Islamic Rep. of	2003	400	51.5	15.9	10.4	51.5	22.3	0.0	0.0	51.6	51.4
	2007	577	49.6	14.9	10.1	49.6	22.9	0.7	1.7	47.0	51.7
Israel	2003	348	52.9	34.2	6.5	52.9	6.4	0.0	0.0	49.3	56.7
	2007	463	44.1	33.9	7.9	44.1	10.5	1.1	2.5	42.0	46.6
Italy	2003	347	51.9	33.0	9.3	51.9	5.7	0.0	0.0	49.5	54.5
	2007	635	41.3	37.7	12.0	41.3	6.0	1.8	1.2	38.1	44.3
Japan	2003	397	67.8	14.8	7.0	67.8	10.4	0.0	0.0	67.5	68.1
	2007	610	72.3	11.2	6.3	72.3	8.6	0.4	1.3	71.1	73.4
Jordan	2003	377	59.7	17.0	10.7	59.7	12.6	0.0	0.0	59.8	59.6
	2007	747	60.7	17.9	8.7	60.7	11.5	1.0	0.3	63.7	57.9
Korea, Rep. of	2003	446	70.4	18.9	2.8	70.4	7.8	0.0	0.0	71.5	69.4
	2007	606	76.1	11.7	3.3	76.1	8.9	0.0	0.0	78.4	74.1
Lebanon	2003	313	26.1	34.5	26.7	26.1	12.8	0.0	0.0	20.3	33.1
	2007	538	30.5	26.9	28.7	30.5	9.7	2.2	2.1	36.2	24.2

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent.

Science: Physics / Applying (S032394 - S09_08)
 Label: Heat conduction through copper rod
 Type: MC Key: C

COUNTRY	Year	N	DIFF	A	B	C	D	OMIT TED	NOT REACH ED	1.GIRL %Right	2.BOY %Right
Lithuania	2003	376	48.5	43.2	5.9	48.5	2.5	0.0	0.0	52.5	45.4
	2007	566	43.9	41.0	9.5	43.9	3.4	2.0	0.2	41.7	46.1
Malaysia	2003	436	53.2	30.7	3.3	53.2	12.8	0.0	0.0	55.6	50.9
	2007	634	37.0	35.1	7.1	37.0	18.7	1.0	1.1	38.3	35.5
Norway	2003	323	26.6	37.3	12.8	26.6	23.3	0.0	0.0	24.0	28.5
	2007	676	29.6	36.5	12.8	29.6	18.9	1.8	0.4	25.9	33.5
Palestinian Nat'l Auth.	2003	436	58.4	18.5	11.3	58.4	11.8	0.0	0.0	59.6	56.8
	2007	630	56.3	18.9	11.1	56.3	12.3	0.9	0.4	60.3	52.4
Romania	2003	334	65.5	10.1	14.0	65.5	10.4	0.0	0.0	62.1	69.2
	2007	602	65.8	9.6	16.1	65.8	6.7	1.3	0.4	64.8	66.8
Russian Federation	2003	388	89.8	3.5	0.9	89.8	5.8	0.0	0.0	86.2	93.3
	2007	650	84.9	3.7	3.6	84.9	3.9	1.9	2.0	84.1	85.7
Scotland	2003	281	44.1	23.7	18.8	44.1	13.4	0.0	0.0	42.6	45.4
	2007	560	46.3	19.3	18.5	46.3	14.4	0.7	0.8	43.7	49.1
Serbia	2003	349	50.1	37.5	5.7	50.1	6.8	0.0	0.0	50.7	49.4
	2007	580	46.4	37.4	4.1	46.4	9.1	2.2	0.8	48.0	44.8
Singapore	2003	503	55.9	18.8	8.2	55.9	17.2	0.0	0.0	57.3	54.6
	2007	658	55.4	14.1	13.4	55.4	16.5	0.3	0.4	56.3	54.6
Slovenia	2003	299	40.0	35.8	18.2	40.0	6.0	0.0	0.0	39.4	40.5
	2007	588	48.9	33.4	9.2	48.9	6.4	1.9	0.1	48.2	49.5
Sweden	2003	335	71.0	13.9	7.5	71.0	7.6	0.0	0.0	68.1	74.1
	2007	751	70.0	15.6	5.5	70.0	7.6	1.3	0.0	68.0	71.8
Tunisia	2003	395	31.4	34.9	23.5	31.4	10.3	0.0	0.0	29.0	34.1
	2007	589	11.9	25.5	4.6	11.9	52.9	1.7	3.5	12.6	11.2
United States	2003	727	38.2	30.5	16.7	38.2	14.6	0.0	0.0	32.4	44.2
	2007	1033	37.8	25.2	21.5	37.8	13.9	0.8	0.7	35.8	39.8
International Avg.	2003	388	54.3	21.7	11.7	54.3	12.3	0.0	0.0	52.9	55.8
	2007	629	52.0	20.0	11.8	52.0	13.7	1.4	1.1	51.7	52.4
Basque Country, Spain	2003	211	54.4	26.4	12.8	54.4	6.4	0.0	0.0	44.0	63.0
	2007	323	52.4	24.2	11.1	52.4	10.3	1.5	0.5	43.9	59.4
Ontario, Canada	2003	345	41.3	31.5	16.2	41.3	11.0	0.0	0.0	33.9	47.1
	2007	499	29.5	28.9	25.0	29.5	14.6	1.7	0.2	21.9	36.9
Quebec, Canada	2003	357	70.7	8.4	8.5	70.7	12.5	0.0	0.0	66.0	75.3
	2007	573	45.2	22.5	19.9	45.2	10.1	0.9	1.4	43.7	46.8

DIFF = Percent correct
 Because of missing gender information, some totals may appear inconsistent.

Science: Earth Science / Knowing (S032151 - S09_09)
 Label: Major cause of tides
 Type: MC Key: B

COUNTRY	Year	N	DIFF	A	B	C	D	OMIT TED	NOT REACH ED	1.GIRL %Right	2.BOY %Right
Armenia	2003	365	39.9	29.3	39.9	11.2	19.5	0.0	0.0	39.3	40.6
	2007	682	41.2	13.4	41.2	15.2	16.1	13.6	0.4	37.8	44.6
Australia	2003	404	57.2	4.1	57.2	12.1	26.6	0.0	0.0	45.6	69.6
	2007	578	51.8	6.0	51.8	17.9	23.1	1.0	0.1	44.0	59.6
Bahrain	2003	336	16.9	16.3	16.9	10.5	56.4	0.0	0.0	10.3	23.5
	2007	618	39.9	15.9	39.9	12.3	29.2	1.1	1.5	42.1	37.7
Botswana	2003	419	22.2	34.3	22.2	16.9	26.6	0.0	0.0	24.0	20.2
	2007	596	12.6	30.4	12.6	18.0	29.2	1.9	7.9	13.7	11.4
Bulgaria	2003	314	64.3	5.2	64.3	4.8	25.7	0.0	0.0	62.5	66.2
	2007	443	59.5	9.1	59.5	12.2	16.7	2.2	0.2	55.9	62.4
Chinese Taipei	2003	438	44.3	19.9	44.3	14.3	21.5	0.0	0.0	34.3	53.8
	2007	581	48.1	23.8	48.1	14.9	13.0	0.2	0.0	39.3	57.3
Cyprus	2003	327	10.1	9.9	10.1	39.1	40.9	0.0	0.0	7.8	12.5
	2007	630	13.7	9.5	13.7	56.0	19.1	1.1	0.6	12.0	15.5
Egypt	2003	581	47.4	13.8	47.4	19.5	19.4	0.0	0.0	43.0	51.1
	2007	930	55.7	10.8	55.7	12.5	19.9	0.8	0.3	59.4	52.1
England	2003	228	38.3	3.5	38.3	13.0	45.2	0.0	0.0	27.0	49.5
	2007	569	47.4	5.0	47.4	19.0	27.6	0.7	0.2	41.4	53.7
Ghana	2003	415	24.2	30.6	24.2	18.8	26.3	0.0	0.0	27.6	21.2
	2007	760	19.5	25.1	19.5	21.9	25.6	4.2	3.7	19.1	19.9
Hong Kong SAR	2003	411	54.8	19.6	54.8	13.0	12.6	0.0	0.0	40.2	69.7
	2007	498	43.4	29.1	43.4	12.9	14.2	0.2	0.2	29.4	56.4
Hungary	2003	271	60.0	16.6	60.0	10.4	13.0	0.0	0.0	52.0	68.9
	2007	591	35.8	23.0	35.8	26.1	13.6	1.1	0.5	24.7	47.6
Indonesia	2003	475	30.1	24.5	30.1	6.9	38.5	0.0	0.0	26.1	34.4
	2007	600	21.6	23.5	21.6	18.8	34.4	0.5	1.3	18.3	25.0
Iran, Islamic Rep. of	2003	403	56.1	14.5	56.1	6.2	23.2	0.0	0.0	63.2	51.4
	2007	577	45.9	18.4	45.9	9.0	24.4	0.7	1.7	46.6	45.2
Israel	2003	344	36.7	19.5	36.7	13.6	30.2	0.0	0.0	30.6	43.3
	2007	463	26.4	17.1	26.4	22.4	28.2	3.4	2.5	24.6	28.5
Italy	2003	356	63.8	7.0	63.8	13.2	16.0	0.0	0.0	63.0	64.7
	2007	630	56.5	5.3	56.5	20.4	15.3	1.3	1.2	49.0	63.5
Japan	2003	397	46.5	21.3	46.5	14.6	17.7	0.0	0.0	35.4	58.1
	2007	610	41.2	26.0	41.2	11.0	20.4	0.2	1.3	32.7	48.9
Jordan	2003	370	38.8	19.1	38.8	9.3	32.7	0.0	0.0	32.6	44.4
	2007	747	52.7	9.5	52.7	15.8	20.6	1.1	0.3	55.1	50.4
Korea, Rep. of	2003	441	47.9	18.7	47.9	20.2	13.3	0.0	0.0	44.7	50.8
	2007	606	53.2	18.2	53.2	17.0	11.3	0.4	0.0	49.3	56.7
Lebanon	2003	289	13.9	34.2	13.9	25.0	26.8	0.0	0.0	12.5	15.6
	2007	532	13.0	24.7	13.0	30.6	22.3	7.1	2.4	12.3	13.8

DIFF = Percent correct
 Because of missing gender information, some totals may appear inconsistent.

Science: Earth Science / Knowing (S032151 - S09_09)
 Label: Major cause of tides
 Type: MC Key: B

COUNTRY	Year	N	DIFF	A	B	C	D	OMIT TED	NOT REACH ED	1.GIRL %Right	2.BOY %Right
Lithuania	2003	369	43.4	10.8	43.4	29.4	16.4	0.0	0.0	38.6	47.0
	2007	565	48.5	7.3	48.5	35.9	6.9	1.2	0.2	42.1	54.8
Malaysia	2003	440	36.2	25.6	36.2	6.4	31.8	0.0	0.0	27.8	44.3
	2007	634	27.5	22.3	27.5	9.5	37.8	1.5	1.4	21.5	33.8
Norway	2003	320	62.5	21.0	62.5	6.6	9.9	0.0	0.0	51.6	70.8
	2007	676	55.9	19.8	55.9	9.9	12.2	1.6	0.5	53.0	59.1
Palestinian Nat'l Auth.	2003	430	22.6	25.4	22.6	13.9	38.0	0.0	0.0	22.6	22.7
	2007	631	24.4	24.2	24.4	21.9	28.0	0.8	0.6	20.8	27.9
Romania	2003	329	29.9	14.4	29.9	16.8	39.0	0.0	0.0	24.1	36.4
	2007	602	27.8	17.0	27.8	24.6	29.1	1.0	0.4	26.1	29.4
Russian Federation	2003	383	50.1	11.3	50.1	8.8	29.9	0.0	0.0	36.8	63.3
	2007	650	55.0	5.4	55.0	12.1	24.6	0.7	2.1	49.2	61.2
Scotland	2003	282	34.4	8.3	34.4	17.7	39.5	0.0	0.0	30.1	38.6
	2007	560	38.1	8.1	38.1	29.8	22.7	0.3	1.0	30.7	45.9
Serbia	2003	350	56.1	9.9	56.1	4.7	29.3	0.0	0.0	51.0	61.1
	2007	582	48.1	14.8	48.1	10.2	25.1	1.0	0.8	45.6	50.6
Singapore	2003	503	47.6	8.5	47.6	8.6	35.3	0.0	0.0	45.4	49.7
	2007	658	45.7	5.9	45.7	29.2	18.9	0.0	0.4	40.0	50.5
Slovenia	2003	302	76.6	10.5	76.6	4.1	8.8	0.0	0.0	72.0	80.8
	2007	588	78.4	9.4	78.4	3.5	7.4	1.1	0.1	72.6	84.0
Sweden	2003	336	59.7	19.4	59.7	8.6	12.2	0.0	0.0	59.1	60.4
	2007	751	62.4	15.7	62.4	12.1	8.9	0.9	0.0	56.2	67.7
Tunisia	2003	375	8.5	12.4	8.5	16.9	62.1	0.0	0.0	8.4	8.6
	2007	589	13.9	17.7	13.9	13.5	49.1	2.1	3.7	10.6	17.1
United States	2003	728	56.4	6.0	56.4	13.4	24.2	0.0	0.0	49.8	63.2
	2007	1033	55.1	6.0	55.1	21.3	15.8	0.9	0.9	49.3	60.8
International Avg.	2003	386	42.3	16.5	42.3	13.6	27.5	0.0	0.0	37.5	47.2
	2007	629	41.2	15.7	41.2	18.7	21.5	1.7	1.2	37.1	45.2
Basque Country, Spain	2003	214	46.3	5.4	46.3	6.1	42.2	0.0	0.0	35.9	55.2
	2007	323	58.4	7.1	58.4	9.3	23.9	0.9	0.5	43.4	70.5
Ontario, Canada	2003	343	46.6	6.0	46.6	15.1	32.3	0.0	0.0	41.7	50.4
	2007	499	41.0	7.5	41.0	24.7	24.1	2.4	0.2	32.7	49.2
Quebec, Canada	2003	359	62.6	6.5	62.6	9.7	21.1	0.0	0.0	51.1	74.1
	2007	573	35.2	13.9	35.2	33.3	14.9	1.2	1.5	30.6	39.8

DIFF = Percent correct
 Because of missing gender information, some totals may appear inconsistent.

Science: Earth Science / Applying (S032651A - S09_10A)

Label: Topographic map/ identify X

Type: CR Key: -

COUNTRY	Year	N	10	70	71	79	OMIT TED	NOT REACH ED	V1	1.GIRL %Right	2.BOY %Right
Armenia	2003	118	81.8	6.4	7.1	4.7	0.0	0.0	81.8	84.1	79.4
	2007	684	54.8	0.5	0.0	15.0	29.2	0.4	54.8	56.9	52.8
Australia	2003	352	72.7	1.0	3.0	23.4	0.0	0.0	72.7	69.3	76.1
	2007	578	56.5	1.2	4.3	27.8	9.8	0.4	56.5	49.3	63.7
Bahrain	2003	219	26.6	4.4	10.9	58.1	0.0	0.0	26.6	25.9	27.5
	2007	618	18.1	0.1	3.3	55.3	21.6	1.6	18.1	18.8	17.5
Botswana	2003	384	15.5	12.9	20.6	51.1	0.0	0.0	15.5	14.0	17.1
	2007	596	12.5	5.1	14.4	51.7	8.0	8.3	12.5	11.0	14.0
Bulgaria	2003	183	55.9	10.9	5.9	27.3	0.0	0.0	55.9	51.8	60.1
	2007	443	38.2	2.6	4.0	17.4	37.4	0.4	38.2	39.7	37.0
Chinese Taipei	2003	395	89.3	0.5	0.0	10.2	0.0	0.0	89.3	84.6	93.9
	2007	581	72.8	3.1	0.3	15.6	8.2	0.0	72.8	74.8	70.6
Cyprus	2003	178	38.6	2.5	13.7	45.2	0.0	0.0	38.6	30.2	47.2
	2007	630	26.2	0.2	6.6	26.2	40.0	0.8	26.2	23.0	29.5
Egypt	2003	86	44.3	0.7	4.5	50.5	0.0	0.0	44.3	36.2	51.2
	2007	933	12.4	1.8	5.5	52.6	27.1	0.6	12.4	11.5	13.3
England	2003	190	63.8	0.8	4.8	30.7	0.0	0.0	63.8	59.8	67.3
	2007	569	61.0	0.6	4.5	22.8	10.9	0.2	61.0	52.8	69.3
Ghana	2003	293	6.1	1.5	2.3	90.1	0.0	0.0	6.1	2.3	9.3
	2007	760	3.1	1.0	8.0	54.0	29.0	5.0	3.1	2.6	3.6
Hong Kong SAR	2003	373	72.5	6.0	0.9	20.7	0.0	0.0	72.5	68.0	77.0
	2007	498	58.8	1.7	0.6	28.6	10.0	0.2	58.8	55.0	62.4
Hungary	2003	218	89.4	1.9	2.8	5.9	0.0	0.0	89.4	86.9	91.9
	2007	591	68.3	2.3	4.2	8.7	16.0	0.5	68.3	65.9	70.9
Indonesia	2003	289	17.6	1.7	5.6	75.1	0.0	0.0	17.6	14.1	20.9
	2007	600	9.3	1.5	5.4	56.7	25.5	1.6	9.3	6.8	11.9
Iran, Islamic Rep. of	2003	225	32.3	10.3	12.0	45.4	0.0	0.0	32.3	38.7	28.5
	2007	577	23.2	6.0	3.1	33.8	32.2	1.7	23.2	20.2	25.7
Israel	2003	243	57.7	5.8	4.6	31.9	0.0	0.0	57.7	49.7	66.0
	2007	463	35.8	1.1	1.2	31.4	27.7	2.8	35.8	34.4	37.3
Italy	2003	260	71.1	2.1	2.4	24.4	0.0	0.0	71.1	71.0	71.2
	2007	636	50.2	1.1	1.4	19.9	26.1	1.4	50.2	44.5	55.4
Japan	2003	350	70.9	0.6	0.0	28.5	0.0	0.0	70.9	71.1	70.7
	2007	610	61.7	0.3	0.2	27.9	8.7	1.3	61.7	58.7	64.5
Jordan	2003	289	31.9	8.9	10.3	48.8	0.0	0.0	31.9	36.2	27.4
	2007	747	23.4	9.2	9.0	39.3	18.6	0.4	23.4	22.8	24.0
Korea, Rep. of	2003	411	66.3	0.3	1.8	31.7	0.0	0.0	66.3	63.1	69.0
	2007	606	64.4	0.3	0.8	26.0	8.5	0.0	64.4	61.3	67.1
Lebanon	2003	159	9.4	31.8	3.7	55.2	0.0	0.0	9.4	9.0	9.8
	2007	541	10.9	1.9	2.0	44.4	37.1	3.7	10.9	9.2	12.9

V1 = Percent scoring 1 or better V2 = Percent scoring 2 or better
 Percent right for boys and girls corresponds to the percent obtaining the maximum score on the item.
 Because of missing gender information, some totals may appear inconsistent.

Science: Earth Science / Applying (S032651A - S09_10A)

Label: Topographic map/ identify X

Type: CR Key: -

COUNTRY	Year	N	10	70	71	79	OMIT TED	NOT REACH ED	V1	1.GIRL %Right	2.BOY %Right
Lithuania	2003	304	67.0	3.0	4.3	25.6	0.0	0.0	67.0	59.9	71.8
	2007	567	53.6	2.6	6.0	18.2	19.5	0.2	53.6	48.6	58.5
Malaysia	2003	352	57.2	3.5	7.6	31.7	0.0	0.0	57.2	52.6	61.3
	2007	634	34.1	0.7	1.9	45.2	16.4	1.6	34.1	30.3	38.2
Norway	2003	287	73.1	0.9	4.1	21.9	0.0	0.0	73.1	64.5	79.2
	2007	676	64.3	1.9	2.4	20.8	10.0	0.6	64.3	61.3	67.5
Palestinian Nat'l Auth.	2003	299	13.7	2.3	16.3	67.7	0.0	0.0	13.7	11.5	16.0
	2007	631	16.7	1.7	11.7	54.3	15.0	0.6	16.7	16.0	17.5
Romania	2003	166	57.5	3.8	9.0	29.7	0.0	0.0	57.5	44.7	70.5
	2007	601	34.9	1.3	4.3	21.6	37.3	0.5	34.9	25.3	44.0
Russian Federation	2003	275	84.7	4.0	1.3	10.0	0.0	0.0	84.7	79.6	89.0
	2007	650	56.6	2.0	2.2	14.7	22.4	2.2	56.6	50.3	63.4
Scotland	2003	235	63.8	1.1	4.2	30.8	0.0	0.0	63.8	65.5	62.3
	2007	560	52.3	0.5	4.5	25.9	15.8	1.0	52.3	50.7	53.9
Serbia	2003	201	64.4	2.0	8.4	25.1	0.0	0.0	64.4	60.5	67.3
	2007	588	39.7	2.0	7.0	19.0	31.3	0.9	39.7	33.1	46.4
Singapore	2003	454	61.7	0.8	8.5	29.0	0.0	0.0	61.7	60.0	63.3
	2007	658	51.9	0.1	7.0	32.3	8.2	0.4	51.9	53.4	50.7
Slovenia	2003	252	64.6	1.8	11.0	22.5	0.0	0.0	64.6	60.0	68.8
	2007	587	60.7	1.5	7.0	18.3	12.2	0.3	60.7	61.5	59.9
Sweden	2003	278	63.3	0.5	1.6	34.6	0.0	0.0	63.3	64.9	61.5
	2007	751	47.3	2.0	2.8	28.6	19.2	0.0	47.3	44.0	50.2
Tunisia	2003	221	19.2	6.2	4.5	70.1	0.0	0.0	19.2	17.6	21.0
	2007	589	11.2	0.8	2.7	50.7	30.6	4.1	11.2	9.6	12.9
United States	2003	659	61.3	1.4	5.4	31.8	0.0	0.0	61.3	53.6	69.2
	2007	1033	57.9	1.7	6.9	25.6	6.7	1.2	57.9	54.9	60.9
International Avg.	2003	279	53.5	4.3	6.2	36.0	0.0	0.0	53.5	50.3	56.4
	2007	630	40.7	1.8	4.4	31.2	20.5	1.4	40.7	38.1	43.2
Basque Country, Spain	2003	160	60.5	0.0	2.8	36.7	0.0	0.0	60.5	54.0	65.3
	2007	323	45.0	0.4	0.2	35.8	18.1	0.5	45.0	32.1	55.5
Ontario, Canada	2003	291	55.2	3.9	8.7	32.3	0.0	0.0	55.2	52.6	57.0
	2007	499	49.5	0.9	4.3	30.6	14.4	0.4	49.5	40.9	57.8
Quebec, Canada	2003	318	74.7	0.7	3.9	20.7	0.0	0.0	74.7	67.1	82.1
	2007	573	48.9	3.8	6.3	21.8	17.6	1.5	48.9	41.5	56.4

V1 = Percent scoring 1 or better V2 = Percent scoring 2 or better
 Percent right for boys and girls corresponds to the percent obtaining the maximum score on the item.
 Because of missing gender information, some totals may appear inconsistent.

Science: Earth Science / Reasoning (S032651B - S09_10B)
 Label: Topographic map/ river path
 Type: CR Key: -

COUNTRY	Year	N	10	11	12	19	70	71	79	OMIT TED	NOT REACH ED	V1	1.GIRL %Right	2.BOY %Right
Armenia	2003	92	36.3	0.0	30.4	0.0	6.5	1.5	25.3	0.0	0.0	66.7	70.5	63.7
	2007	684	14.8	0.0	5.1	3.3	5.3	0.5	14.6	55.0	1.4	23.3	24.1	22.4
Australia	2003	308	27.1	3.7	5.3	0.5	13.8	4.7	45.0	0.0	0.0	36.5	28.1	44.8
	2007	578	17.0	2.8	6.7	0.0	6.3	7.2	37.5	22.0	0.6	26.4	19.1	33.8
Bahrain	2003	160	10.8	7.8	10.4	1.1	12.8	4.4	52.6	0.0	0.0	30.2	28.9	32.2
	2007	618	7.6	2.3	2.6	3.3	7.4	4.4	30.6	37.6	4.3	15.8	16.2	15.4
Botswana	2003	261	1.1	1.8	1.5	0.9	11.3	2.0	81.5	0.0	0.0	5.2	4.3	6.4
	2007	596	0.6	0.3	0.4	0.0	4.3	1.2	55.4	26.3	11.5	1.3	0.3	2.2
Bulgaria	2003	138	27.8	7.1	23.9	2.0	6.1	1.2	31.9	0.0	0.0	60.8	58.4	63.2
	2007	443	13.6	0.7	3.7	0.0	3.7	3.4	17.4	50.7	6.9	17.9	15.4	19.9
Chinese Taipei	2003	332	32.7	2.3	3.5	1.3	27.7	16.4	16.1	0.0	0.0	39.8	34.4	45.5
	2007	581	31.6	1.3	3.8	0.0	17.9	8.8	15.2	21.3	0.0	36.8	36.2	37.4
Cyprus	2003	144	14.2	2.3	7.1	5.6	12.9	10.2	47.7	0.0	0.0	29.2	24.8	34.2
	2007	630	5.6	1.4	3.6	2.0	6.2	6.1	21.8	49.9	3.4	12.6	12.5	12.7
Egypt	2003	78	10.9	1.3	3.1	5.3	22.0	5.0	52.4	0.0	0.0	20.6	20.9	20.4
	2007	933	2.7	1.6	3.8	0.3	2.1	2.0	35.7	49.3	2.5	8.5	9.4	7.6
England	2003	182	33.3	3.4	7.0	1.5	7.1	2.4	45.3	0.0	0.0	45.2	45.0	45.4
	2007	569	17.2	2.3	5.0	0.0	9.1	4.5	44.4	16.7	0.8	24.5	20.5	28.7
Ghana	2003	118	1.8	0.5	2.3	0.0	2.3	1.8	91.2	0.0	0.0	4.6	3.5	5.6
	2007	760	0.2	0.3	0.4	0.0	1.4	0.6	26.9	56.7	13.4	1.0	0.4	1.5
Hong Kong SAR	2003	349	40.2	4.1	4.1	1.2	18.9	4.8	26.7	0.0	0.0	49.6	42.7	56.5
	2007	498	27.2	5.5	5.2	0.0	10.5	8.0	23.3	19.9	0.4	37.9	37.5	38.2
Hungary	2003	215	25.7	2.2	5.7	0.0	22.3	5.0	39.0	0.0	0.0	33.7	32.2	35.2
	2007	591	20.9	2.5	2.2	0.0	17.8	3.6	31.1	20.9	1.1	25.5	25.3	25.9
Indonesia	2003	143	6.3	2.2	2.3	1.1	5.2	2.4	80.5	0.0	0.0	12.0	9.9	14.3
	2007	600	3.2	1.7	2.6	0.3	1.1	2.0	41.5	41.6	5.9	7.8	6.3	9.4
Iran, Islamic Rep. of	2003	184	4.8	3.0	2.5	8.6	29.2	18.3	33.6	0.0	0.0	18.9	18.1	19.5
	2007	577	8.8	1.9	4.4	0.6	5.1	2.1	20.4	52.9	3.7	15.8	13.2	18.0
Israel	2003	158	30.0	3.4	10.8	1.1	11.7	4.9	38.1	0.0	0.0	45.3	39.8	51.0
	2007	463	11.2	0.3	4.5	0.0	1.9	2.5	19.2	54.3	6.0	16.0	15.8	16.2
Italy	2003	210	39.5	0.0	6.1	1.7	7.5	16.1	29.0	0.0	0.0	47.4	44.6	50.6
	2007	636	10.2	0.4	13.1	3.8	9.1	5.8	22.8	31.8	3.0	27.6	22.7	32.0
Japan	2003	331	59.4	7.5	2.3	0.3	9.5	0.9	20.1	0.0	0.0	69.5	70.7	68.3
	2007	610	41.1	3.0	1.9	0.0	5.5	2.6	30.1	13.2	2.6	46.0	43.7	48.0
Jordan	2003	200	13.8	6.5	12.9	0.0	13.2	6.9	46.8	0.0	0.0	33.1	34.8	31.0
	2007	747	5.0	2.0	3.5	0.3	14.6	2.0	38.7	32.3	1.6	10.8	8.6	12.9
Korea, Rep. of	2003	385	13.0	3.2	6.5	0.3	1.0	1.0	75.0	0.0	0.0	23.0	22.4	23.5
	2007	606	22.2	3.8	6.0	0.0	10.9	2.5	42.0	12.4	0.3	31.9	30.0	33.7
Lebanon	2003	78	9.2	0.0	2.5	2.3	27.9	10.8	47.3	0.0	0.0	14.1	13.8	14.4
	2007	541	2.1	0.3	2.5	0.1	4.0	2.7	24.4	56.0	7.9	5.0	3.3	6.9

V1 = Percent scoring 1 or better V2 = Percent scoring 2 or better
 Percent right for boys and girls corresponds to the percent obtaining the maximum score on the item.
 Because of missing gender information, some totals may appear inconsistent.

Science: Earth Science / Reasoning (S032651B - S09_10B)
 Label: Topographic map/ river path
 Type: CR Key: -

COUNTRY	Year	N	10	11	12	19	70	71	79	OMIT TED	NOT REACH ED	V1	1.GIRL %Right	2.BOY %Right
Lithuania	2003	248	38.5	1.0	14.1	0.3	10.4	5.1	30.6	0.0	0.0	53.9	56.2	52.3
	2007	567	19.4	1.2	8.2	0.4	5.8	5.2	29.0	28.8	2.0	29.2	24.0	34.2
Malaysia	2003	294	29.8	3.4	2.3	1.8	6.7	8.8	47.1	0.0	0.0	37.4	31.6	42.1
	2007	634	13.7	2.8	2.3	1.8	6.9	3.4	36.9	28.6	3.7	20.5	18.7	22.5
Norway	2003	268	18.1	2.3	12.6	11.2	9.5	6.5	39.7	0.0	0.0	44.3	45.7	43.3
	2007	676	18.1	0.7	9.3	0.3	8.5	4.2	41.5	16.4	1.1	28.4	28.4	28.4
Palestinian Nat'l Auth.	2003	188	5.5	4.4	3.4	1.6	11.9	3.9	69.3	0.0	0.0	14.9	17.5	11.3
	2007	631	2.9	1.1	1.2	1.8	6.0	3.2	43.8	38.2	1.8	7.0	7.6	6.3
Romania	2003	150	11.3	0.7	1.7	7.2	10.4	1.4	67.3	0.0	0.0	20.9	15.7	26.7
	2007	601	13.2	1.3	8.3	0.2	10.8	1.6	22.4	38.8	3.4	23.0	21.7	24.1
Russian Federation	2003	265	27.9	0.3	6.9	4.4	20.2	2.0	38.4	0.0	0.0	39.4	35.4	42.6
	2007	650	14.7	1.2	3.8	0.0	3.2	0.9	47.3	22.5	6.4	19.7	20.3	19.2
Scotland	2003	212	26.4	3.2	7.6	1.7	8.3	2.5	50.3	0.0	0.0	38.9	35.5	42.4
	2007	560	13.5	0.8	3.5	0.0	7.9	6.4	36.5	29.5	1.8	17.9	17.9	17.8
Serbia	2003	161	16.0	0.0	14.8	1.4	9.4	12.4	46.0	0.0	0.0	32.2	26.2	36.8
	2007	588	9.1	1.5	3.2	1.8	3.9	5.2	23.2	48.3	3.8	15.6	14.0	17.2
Singapore	2003	421	28.4	3.2	2.6	0.8	16.9	2.9	45.1	0.0	0.0	35.1	31.3	39.1
	2007	658	23.6	5.5	2.1	0.0	12.2	7.6	36.1	12.1	0.8	31.2	33.5	29.3
Slovenia	2003	225	44.8	1.3	4.8	1.5	14.4	2.7	30.5	0.0	0.0	52.3	49.0	55.1
	2007	587	37.4	3.0	4.0	0.3	11.7	5.8	24.4	12.9	0.5	44.7	39.7	49.5
Sweden	2003	241	33.3	6.5	9.2	1.4	12.2	5.5	31.8	0.0	0.0	50.5	52.0	48.7
	2007	751	25.5	2.7	5.0	1.9	3.8	4.3	28.4	27.0	1.5	35.1	36.0	34.3
Tunisia	2003	144	3.3	1.3	0.7	0.0	9.9	2.7	82.1	0.0	0.0	5.2	4.6	6.1
	2007	589	4.0	2.3	1.8	0.5	7.5	3.4	38.4	35.5	6.7	8.6	7.3	9.8
United States	2003	601	12.4	3.2	7.4	0.1	13.2	5.7	58.0	0.0	0.0	23.1	19.7	26.9
	2007	1033	22.1	2.9	3.7	0.0	11.4	10.4	33.8	13.9	1.9	28.7	25.3	31.9
International Avg.	2003	227	22.2	2.8	7.2	2.1	12.8	5.5	47.3	0.0	0.0	34.4	32.4	36.3
	2007	630	14.5	1.9	4.2	0.7	7.4	4.1	31.4	32.5	3.4	21.3	19.8	22.6
Basque Country, Spain	2003	136	27.5	1.6	16.1	0.5	20.2	10.2	23.7	0.0	0.0	45.8	45.6	46.0
	2007	323	19.1	0.6	7.1	0.0	9.4	6.7	32.1	23.7	1.3	26.8	20.5	31.9
Ontario, Canada	2003	241	26.5	8.1	7.6	2.4	9.8	5.3	40.3	0.0	0.0	44.6	44.5	44.7
	2007	499	16.4	1.1	3.1	0.0	12.0	9.8	37.1	18.9	1.5	20.7	13.9	27.3
Quebec, Canada	2003	270	38.0	1.9	8.1	1.9	12.9	3.3	33.9	0.0	0.0	49.8	43.9	55.5
	2007	573	11.2	1.4	5.0	0.0	11.7	3.7	39.9	24.2	2.9	17.6	16.2	19.1

V1 = Percent scoring 1 or better V2 = Percent scoring 2 or better
 Percent right for boys and girls corresponds to the percent obtaining the maximum score on the item.
 Because of missing gender information, some totals may appear inconsistent.

Science: Biology / Reasoning (S032665A - S09_11A)
 Label: Population in 2 countries/predict
 Type: CR Key: -

COUNTRY	Year	N	10	70	71	79	OMIT TED	NOT REACH ED	V1	1.GIRL %Right	2.BOY %Right
Armenia	2003	123	36.0	9.6	18.8	35.6	0.0	0.0	36.0	38.5	32.8
	2007	684	45.8	2.1	7.0	29.4	14.0	1.8	45.8	45.8	45.8
Australia	2003	383	56.7	4.5	16.1	22.7	0.0	0.0	56.7	51.1	62.9
	2007	578	50.2	3.3	16.8	27.4	1.2	1.0	50.2	47.0	53.5
Bahrain	2003	298	14.0	7.1	21.9	57.0	0.0	0.0	14.0	12.8	15.3
	2007	618	18.6	4.4	21.5	46.4	4.1	5.1	18.6	20.4	16.9
Botswana	2003	376	9.9	4.5	22.5	63.0	0.0	0.0	9.9	9.6	10.2
	2007	596	6.2	3.6	15.9	44.7	11.5	18.2	6.2	6.7	5.7
Bulgaria	2003	228	39.1	6.1	12.0	42.7	0.0	0.0	39.1	35.6	42.8
	2007	443	32.9	3.0	17.3	30.9	7.9	7.9	32.9	37.6	29.2
Chinese Taipei	2003	441	55.8	6.0	9.7	28.4	0.0	0.0	55.8	54.2	57.3
	2007	581	51.9	6.1	17.0	23.6	1.3	0.0	51.9	48.7	55.2
Cyprus	2003	299	30.4	3.2	26.2	40.2	0.0	0.0	30.4	30.3	30.4
	2007	630	30.7	2.5	23.2	36.8	2.9	3.9	30.7	32.1	29.1
Egypt	2003	524	16.0	5.6	19.7	58.6	0.0	0.0	16.0	14.8	17.0
	2007	933	15.7	3.2	17.3	54.0	6.6	3.1	15.7	17.8	13.7
England	2003	223	48.7	4.8	15.9	30.6	0.0	0.0	48.7	51.1	46.2
	2007	569	48.6	4.8	18.3	26.8	0.5	1.1	48.6	45.4	51.8
Ghana	2003	167	5.9	2.6	17.3	74.3	0.0	0.0	5.9	3.2	7.8
	2007	760	3.5	2.1	9.5	42.6	24.9	17.3	3.5	2.4	4.4
Hong Kong SAR	2003	401	69.3	2.9	11.7	16.1	0.0	0.0	69.3	69.7	68.8
	2007	498	59.8	4.4	15.7	18.9	0.5	0.7	59.8	58.2	61.3
Hungary	2003	261	46.4	5.8	17.7	30.1	0.0	0.0	46.4	43.0	50.4
	2007	591	42.2	4.1	22.8	28.1	1.5	1.4	42.2	39.6	44.9
Indonesia	2003	380	14.5	3.6	20.4	61.6	0.0	0.0	14.5	12.9	16.1
	2007	600	9.7	4.8	14.6	56.0	7.4	7.5	9.7	10.6	8.9
Iran, Islamic Rep. of	2003	384	24.0	5.8	28.6	41.5	0.0	0.0	24.0	25.0	23.4
	2007	577	26.9	10.4	20.0	37.6	1.4	3.8	26.9	26.6	27.2
Israel	2003	317	47.9	3.7	20.8	27.6	0.0	0.0	47.9	42.7	53.2
	2007	463	36.7	2.0	15.6	34.6	4.8	6.3	36.7	38.3	34.9
Italy	2003	329	47.5	8.4	16.7	27.4	0.0	0.0	47.5	44.4	51.1
	2007	636	43.3	3.9	14.3	32.2	2.7	3.5	43.3	40.1	46.2
Japan	2003	378	59.1	3.1	18.5	19.3	0.0	0.0	59.1	53.9	64.7
	2007	610	50.1	6.0	18.6	19.8	1.9	3.6	50.1	48.0	51.9
Jordan	2003	346	26.8	7.6	20.9	44.6	0.0	0.0	26.8	26.2	27.4
	2007	747	21.0	3.8	13.3	57.6	2.1	2.2	21.0	25.8	16.4
Korea, Rep. of	2003	434	53.6	4.6	20.2	21.6	0.0	0.0	53.6	49.3	57.3
	2007	606	52.2	5.6	20.6	21.3	0.0	0.3	52.2	45.9	57.8
Lebanon	2003	269	14.7	7.4	27.6	50.3	0.0	0.0	14.7	12.0	18.0
	2007	541	15.3	5.5	17.7	43.0	9.9	8.7	15.3	15.7	14.8

V1 = Percent scoring 1 or better V2 = Percent scoring 2 or better
 Percent right for boys and girls corresponds to the percent obtaining the maximum score on the item.
 Because of missing gender information, some totals may appear inconsistent.

Science: Biology / Reasoning (S032665A - S09_11A)
 Label: Population in 2 countries/predict
 Type: CR Key: -

COUNTRY	Year	N	10	70	71	79	OMIT TED	NOT REACH ED	V1	1.GIRL %Right	2.BOY %Right
Lithuania	2003	327	50.9	5.2	18.5	25.4	0.0	0.0	50.9	49.5	52.0
	2007	565	42.3	4.3	21.1	26.6	3.3	2.5	42.3	42.7	41.9
Malaysia	2003	420	21.2	7.9	28.2	42.7	0.0	0.0	21.2	21.2	21.3
	2007	634	19.5	7.8	25.6	40.7	2.0	4.4	19.5	18.5	20.5
Norway	2003	315	39.7	8.6	19.0	32.6	0.0	0.0	39.7	37.3	41.5
	2007	676	39.7	6.4	18.3	31.1	3.0	1.5	39.7	37.0	42.5
Palestinian Nat'l Auth.	2003	381	15.1	6.4	18.6	59.9	0.0	0.0	15.1	15.4	14.8
	2007	631	10.6	6.5	18.6	57.9	4.5	2.0	10.6	9.3	11.8
Romania	2003	284	31.6	4.0	29.0	35.4	0.0	0.0	31.6	28.2	35.1
	2007	602	26.3	6.4	18.6	41.1	4.1	3.5	26.3	27.6	25.0
Russian Federation	2003	335	43.5	3.3	20.0	33.3	0.0	0.0	43.5	41.6	45.1
	2007	650	38.6	3.5	22.5	24.0	4.4	7.0	38.6	35.7	41.7
Scotland	2003	277	51.0	4.1	19.0	25.9	0.0	0.0	51.0	50.8	51.2
	2007	560	41.4	4.2	20.8	29.9	1.7	2.0	41.4	41.0	41.8
Serbia	2003	265	39.2	4.8	12.5	43.5	0.0	0.0	39.2	38.6	39.7
	2007	588	28.1	3.6	15.7	33.8	11.4	7.4	28.1	27.0	29.2
Singapore	2003	493	53.2	6.5	17.4	23.0	0.0	0.0	53.2	55.9	50.8
	2007	658	47.6	5.4	18.7	25.8	1.6	0.8	47.6	49.0	46.5
Slovenia	2003	287	44.3	4.4	24.2	27.1	0.0	0.0	44.3	47.5	41.3
	2007	587	44.4	6.0	20.6	28.2	0.4	0.5	44.4	43.3	45.3
Sweden	2003	326	51.2	5.9	15.2	27.8	0.0	0.0	51.2	49.0	53.6
	2007	751	50.2	4.5	12.8	28.4	2.3	1.8	50.2	50.2	50.2
Tunisia	2003	364	18.4	7.6	26.8	47.1	0.0	0.0	18.4	15.6	21.7
	2007	589	24.2	6.8	16.4	44.6	0.8	7.3	24.2	21.6	26.7
United States	2003	701	46.2	4.6	20.7	28.5	0.0	0.0	46.2	42.9	49.8
	2007	1033	41.7	4.1	21.2	29.0	1.8	2.3	41.7	38.3	45.0
International Avg.	2003	344	37.0	5.5	19.8	37.7	0.0	0.0	37.0	35.6	38.5
	2007	630	33.8	4.7	17.8	34.9	4.5	4.2	33.8	33.2	34.5
Basque Country, Spain	2003	205	50.0	4.1	22.7	23.3	0.0	0.0	50.0	53.0	47.5
	2007	323	49.3	2.6	21.0	24.0	1.0	2.1	49.3	48.8	49.8
Ontario, Canada	2003	336	49.6	7.1	15.8	27.4	0.0	0.0	49.6	55.1	45.1
	2007	499	52.0	4.2	20.3	19.8	1.9	1.9	52.0	48.6	55.4
Quebec, Canada	2003	353	54.7	5.8	15.2	24.3	0.0	0.0	54.7	48.1	61.3
	2007	573	48.6	4.3	16.9	26.2	1.2	2.9	48.6	44.7	52.4

V1 = Percent scoring 1 or better V2 = Percent scoring 2 or better
 Percent right for boys and girls corresponds to the percent obtaining the maximum score on the item.
 Because of missing gender information, some totals may appear inconsistent.

Science: Biology / Reasoning (S032665B - S09_11B)
 Label: Population in 2 countries/land use
 Type: CR Key: -

COUNTRY	Year	N	10	11	12	19	70	79	OMIT TED	NOT REACH ED	V1	1.GIRL %Right	2.BOY %Right
Armenia	2003	49	28.2	2.9	6.8	7.8	19.1	35.2	0.0	0.0	45.6	48.2	41.5
	2007	684	18.0	1.1	2.8	0.5	0.0	21.7	53.3	2.7	22.3	23.2	21.4
Australia	2003	296	26.3	11.0	1.3	1.3	20.8	39.3	0.0	0.0	39.9	40.4	39.2
	2007	578	25.5	10.0	2.9	0.0	19.4	24.3	16.4	1.3	38.5	41.0	36.1
Bahrain	2003	206	11.9	9.5	2.8	5.5	19.1	51.2	0.0	0.0	29.7	32.2	26.8
	2007	618	4.8	5.0	4.1	1.3	16.1	38.7	24.0	6.0	15.2	20.9	9.7
Botswana	2003	304	3.4	17.6	0.0	5.1	18.6	55.3	0.0	0.0	26.1	24.8	27.5
	2007	596	1.8	4.7	0.4	0.2	9.5	41.1	14.6	27.7	7.2	10.9	3.4
Bulgaria	2003	123	21.6	6.1	6.5	1.4	10.5	53.9	0.0	0.0	35.6	34.4	36.7
	2007	443	4.8	5.5	8.4	0.8	6.2	17.5	48.0	8.7	19.5	22.3	17.2
Chinese Taipei	2003	353	37.6	0.6	3.8	10.6	22.7	24.7	0.0	0.0	52.5	51.7	53.4
	2007	581	10.3	3.3	3.8	4.7	37.6	26.2	13.9	0.2	22.1	26.7	17.3
Cyprus	2003	160	6.9	1.8	4.0	2.0	26.1	59.2	0.0	0.0	14.7	12.5	17.3
	2007	630	4.9	0.4	3.6	0.1	9.9	32.4	44.4	4.3	9.0	9.9	8.1
Egypt	2003	454	8.0	4.8	2.6	0.9	16.8	66.8	0.0	0.0	16.4	15.6	17.0
	2007	933	8.5	4.7	2.4	0.2	5.8	56.0	19.0	3.5	15.7	17.4	14.2
England	2003	169	32.5	7.8	0.9	0.4	38.6	19.8	0.0	0.0	41.7	47.1	35.6
	2007	569	22.4	10.4	1.6	2.3	25.4	23.0	13.7	1.2	36.7	37.4	36.0
Ghana	2003	154	1.1	13.5	0.0	0.0	17.4	68.0	0.0	0.0	14.6	9.5	18.6
	2007	760	1.8	1.7	0.1	0.0	8.9	40.3	28.6	18.6	3.6	4.2	3.1
Hong Kong SAR	2003	350	14.7	5.3	1.9	1.6	18.7	57.8	0.0	0.0	23.5	26.7	20.1
	2007	498	14.9	4.4	1.4	0.4	17.0	46.7	14.6	0.7	21.1	25.5	17.0
Hungary	2003	207	31.7	5.2	4.4	7.2	27.0	24.4	0.0	0.0	48.5	48.9	48.1
	2007	591	17.8	5.3	9.8	1.9	19.3	22.8	21.6	1.5	34.7	34.5	35.0
Indonesia	2003	236	7.8	4.2	0.0	1.1	14.7	72.3	0.0	0.0	13.0	10.3	16.0
	2007	600	6.4	3.6	0.1	1.0	5.0	51.6	23.8	8.6	11.1	12.2	9.9
Iran, Islamic Rep. of	2003	250	6.6	2.8	6.9	15.0	32.1	36.6	0.0	0.0	31.3	37.4	26.8
	2007	577	9.1	5.0	2.5	1.1	16.0	32.6	29.5	4.2	17.7	23.3	13.0
Israel	2003	189	28.3	3.4	3.3	4.6	26.6	33.8	0.0	0.0	39.6	34.2	44.6
	2007	463	17.5	4.4	4.2	0.9	11.9	21.2	32.9	7.0	27.0	26.9	27.2
Italy	2003	183	16.8	1.7	8.9	0.7	26.2	45.7	0.0	0.0	28.1	28.9	26.8
	2007	636	9.7	1.3	2.5	1.0	11.3	35.1	34.9	4.3	14.5	14.7	14.4
Japan	2003	280	27.3	15.2	0.7	9.0	8.8	38.9	0.0	0.0	52.3	50.4	54.3
	2007	610	25.3	3.4	2.4	0.3	16.3	30.2	18.4	3.8	31.3	37.5	25.7
Jordan	2003	267	17.4	12.8	3.5	1.6	15.1	49.7	0.0	0.0	35.3	39.8	30.6
	2007	747	12.3	7.9	1.5	0.4	8.9	54.7	11.9	2.4	22.1	28.0	16.4
Korea, Rep. of	2003	371	34.8	2.9	2.9	6.4	12.2	40.8	0.0	0.0	47.0	48.8	45.6
	2007	606	32.0	3.2	3.0	2.9	25.9	20.7	12.0	0.3	41.2	43.8	38.8
Lebanon	2003	91	14.6	1.3	4.6	0.8	11.6	67.1	0.0	0.0	21.3	27.6	15.7
	2007	541	3.7	1.9	0.8	0.2	5.8	27.6	51.0	8.9	6.7	7.8	5.4

V1 = Percent scoring 1 or better V2 = Percent scoring 2 or better
 Percent right for boys and girls corresponds to the percent obtaining the maximum score on the item.
 Because of missing gender information, some totals may appear inconsistent.

Science: Biology / Reasoning (S032665B - S09_11B)
 Label: Population in 2 countries/land use
 Type: CR Key: -

COUNTRY	Year	N	10	11	12	19	70	79	OMIT TED	NOT REACH ED	V1	1.GIRL %Right	2.BOY %Right
Lithuania	2003	213	23.7	1.7	2.9	1.0	42.6	28.1	0.0	0.0	29.3	24.2	33.8
	2007	565	16.8	2.7	4.2	2.5	23.0	19.4	28.5	2.9	26.3	25.7	26.9
Malaysia	2003	344	7.9	9.0	6.5	2.5	36.2	37.9	0.0	0.0	25.9	27.8	24.1
	2007	634	8.8	5.8	1.1	2.4	22.6	40.1	14.3	4.9	18.1	20.4	15.6
Norway	2003	169	14.2	1.3	8.9	2.9	14.1	58.7	0.0	0.0	27.2	30.2	24.8
	2007	676	9.7	1.8	3.0	1.2	9.0	33.3	39.3	2.6	15.7	18.4	12.9
Palestinian Nat'l Auth.	2003	265	3.5	6.7	5.3	0.3	26.8	57.4	0.0	0.0	15.8	18.7	11.9
	2007	631	4.3	2.9	2.7	0.8	7.5	58.7	20.6	2.5	10.7	12.5	8.9
Romania	2003	139	14.5	0.9	4.6	2.1	16.2	61.6	0.0	0.0	22.1	19.3	25.6
	2007	602	6.1	1.1	1.7	1.5	16.9	21.1	47.8	3.7	10.5	10.6	10.3
Russian Federation	2003	227	13.4	0.7	7.8	3.0	55.2	19.8	0.0	0.0	25.0	23.3	26.3
	2007	650	13.3	0.6	5.2	3.2	20.8	19.6	29.1	8.2	22.3	25.4	19.0
Scotland	2003	202	25.1	10.1	1.5	0.0	39.1	24.2	0.0	0.0	36.7	46.4	26.7
	2007	560	18.1	12.5	2.3	1.6	18.3	19.0	26.1	2.1	34.5	37.0	31.8
Serbia	2003	125	14.2	5.8	2.6	3.9	26.7	46.9	0.0	0.0	26.4	23.0	29.3
	2007	588	7.9	2.7	1.2	0.3	11.6	16.1	51.8	8.4	12.1	14.6	9.7
Singapore	2003	430	30.9	19.3	3.2	4.2	15.4	27.0	0.0	0.0	57.6	67.4	48.6
	2007	658	28.2	10.3	1.5	2.0	16.7	29.3	10.9	1.1	42.0	48.9	36.0
Slovenia	2003	213	17.5	2.8	7.6	1.2	33.1	37.8	0.0	0.0	29.1	31.7	26.6
	2007	587	17.3	2.0	3.5	1.8	22.6	37.1	15.0	0.8	24.6	26.9	22.4
Sweden	2003	179	20.0	1.5	2.5	1.2	26.8	47.9	0.0	0.0	25.2	31.2	18.7
	2007	751	8.6	1.2	6.4	0.8	12.6	24.1	44.2	2.1	17.0	18.3	15.9
Tunisia	2003	251	7.0	4.3	0.0	0.8	27.7	60.1	0.0	0.0	12.2	12.6	11.7
	2007	589	4.7	2.7	0.4	0.4	13.6	44.9	26.0	7.3	8.2	7.5	8.9
United States	2003	615	18.6	13.4	4.2	1.0	26.2	36.6	0.0	0.0	37.2	40.3	33.8
	2007	1033	18.0	6.8	2.1	1.1	19.8	39.9	9.7	2.6	28.0	29.9	26.2
International Avg.	2003	244	17.8	6.3	3.7	3.3	23.9	45.0	0.0	0.0	31.1	32.3	29.8
	2007	630	12.5	4.3	2.8	1.2	14.9	32.3	27.0	5.0	20.8	23.2	18.6
Basque Country, Spain	2003	121	10.5	0.0	10.4	5.0	31.8	42.2	0.0	0.0	26.0	20.9	30.3
	2007	323	6.9	2.4	11.6	0.0	17.8	29.3	29.5	2.6	20.8	18.6	22.6
Ontario, Canada	2003	263	21.9	11.0	8.5	4.6	26.5	27.5	0.0	0.0	45.9	52.4	40.1
	2007	499	28.7	14.7	4.4	2.8	12.5	19.1	15.4	2.4	50.5	54.6	46.6
Quebec, Canada	2003	260	12.2	5.3	11.6	0.7	21.3	48.8	0.0	0.0	29.8	27.6	32.0
	2007	573	9.2	5.3	6.1	1.3	10.4	42.7	22.0	2.9	22.0	23.9	20.1

V1 = Percent scoring 1 or better V2 = Percent scoring 2 or better
 Percent right for boys and girls corresponds to the percent obtaining the maximum score on the item.
 Because of missing gender information, some totals may appear inconsistent.

Science: Biology / Reasoning (S032665C - S09_11C)
 Label: Population in 2 countries/pollution
 Type: CR Key: -

COUNTRY	Year	N	10	11	12	19	70	79	OMIT TED	NOT REACH ED	V1	1.GIRL %Right	2.BOY %Right
Armenia	2003	48	21.1	1.4	8.9	8.2	31.3	29.0	0.0	0.0	39.7	42.5	35.0
	2007	684	14.9	0.8	0.8	3.2	0.4	15.8	37.2	26.9	19.7	20.4	19.1
Australia	2003	293	22.8	13.2	6.1	0.9	26.9	30.1	0.0	0.0	43.0	45.5	40.3
	2007	578	14.6	11.2	14.2	0.4	18.7	21.2	10.3	9.5	40.4	41.9	38.8
Bahrain	2003	212	12.0	10.2	9.0	2.4	27.8	38.6	0.0	0.0	33.6	35.8	31.0
	2007	618	4.6	6.3	6.2	2.1	26.7	24.2	12.1	17.7	19.3	26.2	12.6
Botswana	2003	307	0.8	7.7	0.8	2.8	28.0	59.8	0.0	0.0	12.2	13.6	10.5
	2007	596	1.3	4.7	0.8	0.5	7.0	43.6	8.3	33.7	7.4	11.5	3.1
Bulgaria	2003	132	25.2	2.4	10.0	2.3	16.4	43.6	0.0	0.0	40.0	43.5	36.5
	2007	443	3.7	4.5	10.3	0.8	9.6	17.3	27.0	26.7	19.3	23.0	16.4
Chinese Taipei	2003	357	16.6	0.8	23.4	5.2	43.8	10.1	0.0	0.0	46.1	50.8	41.3
	2007	581	5.4	2.2	15.9	1.9	38.4	23.3	7.9	5.1	25.3	30.7	19.6
Cyprus	2003	161	4.0	2.6	11.6	1.3	33.3	47.1	0.0	0.0	19.5	19.7	19.3
	2007	630	3.9	1.6	6.8	0.0	14.0	27.5	22.7	23.5	12.3	14.1	10.5
Egypt	2003	449	8.4	2.0	3.9	2.0	30.3	53.3	0.0	0.0	16.3	16.7	16.0
	2007	933	11.7	8.2	2.1	0.2	15.6	39.6	12.5	10.0	22.2	26.8	17.8
England	2003	174	23.5	10.9	8.2	0.0	30.0	27.3	0.0	0.0	42.7	48.0	37.1
	2007	569	16.6	12.4	6.7	2.8	23.5	22.3	8.5	7.1	38.5	40.2	36.8
Ghana	2003	159	0.5	6.5	0.0	0.9	14.8	77.2	0.0	0.0	8.0	6.2	9.4
	2007	760	1.1	1.6	0.5	0.1	8.2	37.7	23.8	27.0	3.3	2.4	4.1
Hong Kong SAR	2003	338	12.6	8.1	11.1	1.5	28.0	38.7	0.0	0.0	33.3	39.0	27.1
	2007	498	16.7	4.8	3.8	0.0	34.3	23.9	9.4	7.1	25.3	33.3	17.9
Hungary	2003	210	24.5	7.7	16.2	6.4	28.7	16.5	0.0	0.0	54.8	52.0	58.1
	2007	591	16.6	3.5	12.6	1.4	30.2	14.8	12.3	8.6	34.2	36.2	32.0
Indonesia	2003	232	4.9	4.8	2.2	0.9	19.9	67.3	0.0	0.0	12.8	10.6	15.3
	2007	600	5.9	4.0	0.9	0.3	5.6	48.4	17.4	17.6	11.0	14.6	7.3
Iran, Islamic Rep. of	2003	268	8.2	13.8	4.4	41.1	23.1	9.3	0.0	0.0	67.6	73.2	63.7
	2007	577	9.8	4.0	5.2	2.4	26.3	24.5	11.0	16.8	21.5	25.9	17.8
Israel	2003	201	18.8	4.9	15.1	1.7	31.2	28.2	0.0	0.0	40.6	28.8	52.2
	2007	463	7.3	6.1	8.1	1.5	21.4	17.4	19.9	18.3	22.9	26.1	19.3
Italy	2003	182	12.5	4.6	11.8	2.0	38.8	30.3	0.0	0.0	30.9	32.7	28.0
	2007	636	5.9	2.5	3.9	1.3	16.2	33.0	21.1	16.1	13.5	13.5	13.5
Japan	2003	275	16.0	26.8	11.1	3.7	27.3	14.9	0.0	0.0	57.7	58.8	56.5
	2007	610	10.6	4.9	11.0	0.1	20.7	30.5	11.0	11.1	26.7	30.5	23.2
Jordan	2003	283	15.6	11.7	9.4	2.5	15.3	45.5	0.0	0.0	39.2	40.6	37.7
	2007	747	11.3	14.6	4.7	0.4	16.0	40.5	6.2	6.3	31.0	39.6	22.9
Korea, Rep. of	2003	371	24.6	2.5	15.0	4.6	37.4	16.0	0.0	0.0	46.6	45.8	47.4
	2007	606	16.8	4.7	21.8	2.6	30.2	11.8	6.6	5.5	45.9	50.1	42.0
Lebanon	2003	96	11.9	1.8	7.0	2.6	14.8	62.0	0.0	0.0	23.3	24.9	21.4
	2007	541	3.6	2.4	3.1	0.2	10.3	21.0	29.0	30.4	9.3	11.0	7.5

V1 = Percent scoring 1 or better V2 = Percent scoring 2 or better
 Percent right for boys and girls corresponds to the percent obtaining the maximum score on the item.
 Because of missing gender information, some totals may appear inconsistent.

Science: Biology / Reasoning (S032665C - S09_11C)
 Label: Population in 2 countries/pollution
 Type: CR Key: -

COUNTRY	Year	N	10	11	12	19	70	79	OMIT TED	NOT REACH ED	V1	1.GIRL %Right	2.BOY %Right
Lithuania	2003	225	15.1	2.6	7.6	1.3	55.8	17.7	0.0	0.0	26.5	28.2	25.2
	2007	565	14.4	3.4	7.0	2.1	31.2	12.7	14.8	14.4	26.9	29.7	24.1
Malaysia	2003	337	4.7	9.1	7.3	1.5	35.9	41.5	0.0	0.0	22.6	27.2	18.3
	2007	634	6.5	3.8	3.6	1.6	30.8	34.9	8.2	10.7	15.4	19.4	11.2
Norway	2003	170	5.6	0.8	11.1	0.3	26.7	55.6	0.0	0.0	17.8	20.9	15.3
	2007	676	5.1	1.2	7.7	1.1	16.8	26.0	23.3	18.8	15.2	18.1	12.2
Palestinian Nat'l Auth.	2003	274	3.2	3.8	5.8	1.4	38.8	47.0	0.0	0.0	14.2	19.0	7.7
	2007	631	4.1	3.0	4.1	1.0	18.0	48.4	9.9	11.4	12.2	16.1	8.4
Romania	2003	138	7.8	1.9	16.4	4.0	31.4	38.5	0.0	0.0	30.2	31.4	28.7
	2007	602	4.1	0.5	2.3	1.2	23.9	21.9	22.3	23.9	8.1	6.6	9.4
Russian Federation	2003	235	7.5	1.0	13.5	2.4	55.3	20.2	0.0	0.0	24.4	27.4	21.7
	2007	650	9.3	0.4	13.2	2.4	19.0	17.1	18.0	20.7	25.3	25.8	24.7
Scotland	2003	198	17.3	15.3	4.5	0.3	32.7	29.8	0.0	0.0	37.5	38.8	36.2
	2007	560	7.7	11.1	6.3	1.5	18.0	23.6	18.8	13.0	26.6	27.6	25.7
Serbia	2003	124	14.9	3.8	2.5	2.0	41.0	35.8	0.0	0.0	23.3	27.2	19.8
	2007	588	6.4	2.2	2.3	0.4	15.9	12.8	30.4	29.5	11.4	13.5	9.3
Singapore	2003	427	15.7	17.2	15.1	2.4	21.4	28.1	0.0	0.0	50.5	55.7	45.6
	2007	658	15.9	10.9	12.1	1.7	20.6	26.5	6.2	6.1	40.6	46.9	35.3
Slovenia	2003	220	12.6	3.7	4.6	0.5	60.4	18.2	0.0	0.0	21.4	22.7	20.2
	2007	587	10.8	3.6	10.8	2.7	37.9	20.0	7.1	7.0	28.0	35.3	21.0
Sweden	2003	168	8.8	1.3	18.2	1.9	28.4	41.5	0.0	0.0	30.1	34.2	25.8
	2007	751	4.6	0.7	9.8	0.8	18.5	22.1	23.4	20.2	15.8	17.5	14.4
Tunisia	2003	249	7.8	8.1	2.0	0.8	45.4	35.9	0.0	0.0	18.7	17.3	20.4
	2007	589	3.9	2.4	1.4	0.3	22.7	38.0	14.0	17.2	8.0	7.2	8.7
United States	2003	609	14.5	14.4	7.7	0.7	31.5	31.2	0.0	0.0	37.3	40.5	33.7
	2007	1033	12.0	8.1	7.0	0.6	24.4	34.3	7.4	6.2	27.7	32.4	23.2
International Avg.	2003	246	12.7	6.9	9.1	3.4	31.9	35.9	0.0	0.0	32.2	33.9	30.4
	2007	630	8.7	4.7	6.9	1.2	20.3	26.6	15.7	15.9	21.5	24.7	18.5
Basque Country, Spain	2003	130	6.7	1.9	19.4	1.3	48.8	21.7	0.0	0.0	29.4	26.0	32.4
	2007	323	3.8	2.6	11.8	0.3	29.4	25.3	15.4	11.5	18.5	21.8	15.8
Ontario, Canada	2003	265	16.4	11.2	16.7	1.2	32.8	21.7	0.0	0.0	45.4	48.7	42.5
	2007	499	18.7	10.9	14.3	1.9	13.2	22.1	10.2	8.6	45.8	45.4	46.2
Quebec, Canada	2003	262	11.8	3.6	12.9	0.8	34.0	36.8	0.0	0.0	29.2	30.5	28.0
	2007	573	6.8	5.7	10.7	1.2	22.0	28.4	13.3	11.9	24.4	24.2	24.6

V1 = Percent scoring 1 or better V2 = Percent scoring 2 or better
 Percent right for boys and girls corresponds to the percent obtaining the maximum score on the item.
 Because of missing gender information, some totals may appear inconsistent.

Science: Biology / Knowing (S032465 - S11_01)
 Label: Cells that destroy bacteria
 Type: MC Key: A

COUNTRY	Year	N	DIFF	A	B	C	D	OMIT TED	NOT REACH ED	1.GIRL %Right	2.BOY %Right
Armenia	2003	391	65.3	65.3	21.0	10.2	3.5	0.0	0.0	65.2	65.4
	2007	665	65.6	65.6	16.4	8.1	3.9	5.9	0.1	69.6	61.1
Australia	2003	369	70.2	70.2	23.0	5.7	1.0	0.0	0.0	70.3	70.2
	2007	583	71.7	71.7	20.4	5.8	1.4	0.5	0.2	73.0	70.6
Bahrain	2003	349	62.0	62.0	32.6	3.4	2.0	0.0	0.0	59.7	64.3
	2007	596	62.8	62.8	27.8	4.9	3.5	0.9	0.1	63.7	61.9
Botswana	2003	425	47.1	47.1	36.5	9.5	6.9	0.0	0.0	44.2	50.0
	2007	603	44.0	44.0	39.3	8.8	6.9	0.8	0.1	47.8	39.8
Bulgaria	2003	323	73.1	73.1	19.2	3.6	4.1	0.0	0.0	72.2	74.2
	2007	433	68.5	68.5	17.9	7.5	4.5	1.4	0.2	68.9	68.1
Chinese Taipei	2003	445	88.5	88.5	9.2	1.6	0.6	0.0	0.0	87.1	90.0
	2007	574	79.8	79.8	15.9	1.8	2.1	0.2	0.2	77.0	82.5
Cyprus	2003	327	43.2	43.2	30.7	17.2	8.9	0.0	0.0	41.3	45.0
	2007	621	47.7	47.7	29.5	14.6	7.6	0.7	0.0	46.7	48.7
Egypt	2003	586	60.3	60.3	23.9	11.2	4.6	0.0	0.0	60.4	60.3
	2007	944	55.2	55.2	34.3	5.8	4.3	0.4	0.0	56.8	53.5
England	2003	230	85.7	85.7	14.3	0.0	0.0	0.0	0.0	85.6	85.8
	2007	585	76.8	76.8	20.8	1.1	1.0	0.3	0.0	71.9	82.3
Ghana	2003	412	37.2	37.2	37.6	11.9	13.3	0.0	0.0	39.8	35.1
	2007	762	39.7	39.7	33.2	13.2	10.4	3.2	0.2	37.8	41.3
Hong Kong SAR	2003	416	70.2	70.2	28.6	0.8	0.4	0.0	0.0	68.8	71.5
	2007	494	66.1	66.1	28.0	1.9	3.6	0.4	0.0	62.0	69.9
Hungary	2003	278	72.8	72.8	23.1	3.8	0.4	0.0	0.0	65.7	80.9
	2007	593	72.5	72.5	22.7	3.7	0.6	0.5	0.0	70.1	74.6
Indonesia	2003	470	67.9	67.9	20.4	6.1	5.7	0.0	0.0	67.2	68.5
	2007	596	67.6	67.6	20.1	7.2	4.1	1.0	0.0	65.6	70.0
Iran, Islamic Rep. of	2003	408	61.9	61.9	29.6	4.8	3.8	0.0	0.0	61.6	62.0
	2007	580	60.4	60.4	25.9	7.2	5.1	1.4	0.0	60.7	60.1
Israel	2003	352	76.8	76.8	18.6	3.5	1.1	0.0	0.0	74.2	80.1
	2007	461	61.7	61.7	27.9	5.3	2.9	1.6	0.6	56.7	67.1
Italy	2003	353	81.7	81.7	14.2	2.6	1.5	0.0	0.0	78.4	84.9
	2007	625	82.2	82.2	12.4	2.5	2.3	0.6	0.0	78.7	85.5
Japan	2003	407	79.4	79.4	13.6	3.9	3.1	0.0	0.0	80.0	78.9
	2007	613	80.7	80.7	12.5	4.3	2.2	0.3	0.0	77.6	83.8
Jordan	2003	344	65.2	65.2	24.7	6.5	3.6	0.0	0.0	71.9	58.0
	2007	769	66.2	66.2	27.0	2.9	3.1	0.8	0.0	69.5	63.1
Korea, Rep. of	2003	442	75.6	75.6	18.4	2.6	3.4	0.0	0.0	70.4	80.6
	2007	603	80.6	80.6	14.3	2.7	2.4	0.0	0.0	77.0	84.0
Lebanon	2003	323	65.4	65.4	22.1	6.4	6.2	0.0	0.0	62.8	68.9
	2007	530	63.3	63.3	22.5	8.2	5.5	0.5	0.0	56.1	72.2

DIFF = Percent correct
 Because of missing gender information, some totals may appear inconsistent.

Science: Biology / Knowing (S032465 - S11_01)
 Label: Cells that destroy bacteria
 Type: MC Key: A

COUNTRY	Year	N	DIFF	A	B	C	D	OMIT TED	NOT REACH ED	1.GIRL %Right	2.BOY %Right
Lithuania	2003	367	71.7	71.7	23.8	2.9	1.6	0.0	0.0	68.2	75.2
	2007	573	69.0	69.0	23.4	4.3	2.6	0.6	0.0	73.8	64.6
Malaysia	2003	446	80.5	80.5	14.8	2.6	2.1	0.0	0.0	77.2	84.0
	2007	638	63.1	63.1	22.6	8.5	5.5	0.3	0.0	63.4	62.7
Norway	2003	333	72.3	72.3	20.5	6.4	0.8	0.0	0.0	67.2	76.7
	2007	661	66.9	66.9	22.5	8.2	1.8	0.7	0.0	66.0	67.8
Palestinian Nat'l Auth.	2003	428	51.2	51.2	38.2	6.5	4.2	0.0	0.0	49.2	53.5
	2007	633	51.0	51.0	37.1	6.3	4.6	1.1	0.0	54.0	47.9
Romania	2003	324	60.1	60.1	30.2	6.3	3.4	0.0	0.0	54.1	66.4
	2007	602	67.2	67.2	24.0	3.2	5.0	0.7	0.0	61.6	73.3
Russian Federation	2003	363	59.5	59.5	28.0	8.1	4.5	0.0	0.0	64.8	55.1
	2007	626	58.6	58.6	29.1	6.8	4.0	1.6	0.1	58.3	58.8
Scotland	2003	293	63.2	63.2	27.2	7.2	2.4	0.0	0.0	59.1	67.6
	2007	569	59.4	59.4	33.0	4.8	2.1	0.7	0.0	56.1	62.4
Serbia	2003	352	71.6	71.6	15.8	7.9	4.7	0.0	0.0	73.0	70.4
	2007	577	72.7	72.7	17.9	5.7	2.9	0.5	0.3	71.9	73.6
Singapore	2003	499	83.2	83.2	15.2	0.4	1.2	0.0	0.0	85.5	81.2
	2007	654	78.4	78.4	18.4	2.2	1.0	0.0	0.0	76.7	80.0
Slovenia	2003	291	54.0	54.0	27.4	13.4	5.3	0.0	0.0	47.1	60.9
	2007	576	30.1	30.1	38.8	18.7	11.0	1.4	0.0	31.1	29.1
Sweden	2003	340	79.4	79.4	16.3	2.8	1.5	0.0	0.0	76.6	81.7
	2007	713	76.9	76.9	17.9	3.1	1.1	0.9	0.2	71.7	81.3
Tunisia	2003	384	69.4	69.4	22.5	5.3	2.9	0.0	0.0	61.4	78.0
	2007	585	73.7	73.7	14.4	7.1	2.6	2.1	0.2	67.8	80.8
United States	2003	745	78.2	78.2	19.9	1.3	0.5	0.0	0.0	75.6	81.0
	2007	1054	81.3	81.3	16.6	1.1	0.7	0.1	0.2	78.8	83.7
International Avg.	2003	388	68.0	68.0	23.1	5.6	3.3	0.0	0.0	66.2	69.9
	2007	627	65.5	65.5	23.8	6.0	3.7	1.0	0.1	64.2	66.9
Basque Country, Spain	2003	204	49.7	49.7	35.4	10.4	4.4	0.0	0.0	49.2	50.1
	2007	332	46.0	46.0	40.6	7.0	2.8	3.5	0.0	39.1	52.6
Ontario, Canada	2003	355	82.8	82.8	14.4	2.0	0.9	0.0	0.0	79.4	86.3
	2007	485	80.5	80.5	15.3	1.6	1.4	1.1	0.0	79.1	81.9
Quebec, Canada	2003	371	58.1	58.1	33.7	5.2	3.0	0.0	0.0	57.4	59.0
	2007	549	59.7	59.7	33.0	3.3	1.9	1.9	0.1	58.1	61.3

DIFF = Percent correct
 Because of missing gender information, some totals may appear inconsistent.

Science: Biology / Reasoning (S032315 - S11_02)
 Label: Antelope population graph
 Type: MC Key: D

COUNTRY	Year	N	DIFF	A	B	C	D	OMIT TED	NOT REACH ED	1.GIRL %Right	2.BOY %Right
Armenia	2003	277	47.9	11.6	22.5	18.0	47.9	0.0	0.0	54.1	40.9
	2007	666	47.6	9.6	11.8	11.8	47.6	19.1	0.1	48.9	46.1
Australia	2003	367	67.2	14.4	12.3	6.1	67.2	0.0	0.0	67.1	67.3
	2007	583	60.2	24.0	9.0	6.0	60.2	0.7	0.2	57.4	62.6
Bahrain	2003	335	50.4	13.2	22.5	13.9	50.4	0.0	0.0	55.3	45.7
	2007	596	49.6	15.1	22.6	11.3	49.6	1.3	0.1	53.7	45.6
Botswana	2003	416	48.6	15.9	19.9	15.7	48.6	0.0	0.0	49.4	47.8
	2007	603	43.2	17.8	17.5	17.3	43.2	4.2	0.1	43.3	43.1
Bulgaria	2003	313	61.1	17.4	13.0	8.5	61.1	0.0	0.0	65.0	56.2
	2007	433	43.9	28.3	13.7	10.1	43.9	3.8	0.2	45.0	42.9
Chinese Taipei	2003	443	65.1	9.7	11.8	13.4	65.1	0.0	0.0	65.5	64.7
	2007	574	55.2	20.7	9.5	14.1	55.2	0.2	0.2	57.8	52.8
Cyprus	2003	326	52.3	13.1	18.9	15.7	52.3	0.0	0.0	50.4	54.1
	2007	621	41.1	21.4	13.4	22.6	41.1	1.5	0.0	38.7	43.6
Egypt	2003	568	41.5	11.0	30.5	17.0	41.5	0.0	0.0	41.1	41.8
	2007	944	43.2	6.1	30.7	19.2	43.2	0.8	0.0	44.4	42.0
England	2003	228	59.0	18.5	16.0	6.5	59.0	0.0	0.0	57.5	60.4
	2007	585	65.2	21.7	8.9	3.7	65.2	0.5	0.0	61.7	69.1
Ghana	2003	405	39.9	20.1	16.4	23.6	39.9	0.0	0.0	45.8	35.5
	2007	762	38.7	21.1	17.9	17.2	38.7	4.9	0.2	41.2	36.6
Hong Kong SAR	2003	417	57.7	21.3	10.8	10.2	57.7	0.0	0.0	62.1	53.8
	2007	494	45.2	33.9	13.1	7.1	45.2	0.7	0.0	47.0	43.6
Hungary	2003	273	73.4	7.3	10.1	9.1	73.4	0.0	0.0	68.6	79.0
	2007	592	60.5	14.9	10.1	12.4	60.5	2.0	0.0	56.8	63.8
Indonesia	2003	452	65.1	7.3	12.9	14.7	65.1	0.0	0.0	62.9	67.3
	2007	596	50.8	11.1	14.7	20.9	50.8	2.3	0.1	45.5	57.5
Iran, Islamic Rep. of	2003	405	51.4	12.9	20.3	15.3	51.4	0.0	0.0	56.4	48.2
	2007	580	50.2	18.6	18.4	11.6	50.2	1.3	0.0	49.9	50.4
Israel	2003	335	59.8	13.5	14.2	12.5	59.8	0.0	0.0	60.8	58.7
	2007	461	46.5	13.7	17.7	17.5	46.5	4.0	0.6	48.2	44.7
Italy	2003	339	57.9	17.8	11.9	12.3	57.9	0.0	0.0	56.8	59.0
	2007	623	46.4	27.2	9.8	13.1	46.4	3.5	0.0	45.6	47.2
Japan	2003	405	38.6	23.1	23.6	14.7	38.6	0.0	0.0	32.7	44.2
	2007	613	35.6	30.3	17.9	15.4	35.6	0.8	0.0	34.7	36.6
Jordan	2003	335	42.9	16.4	28.3	12.4	42.9	0.0	0.0	45.7	39.9
	2007	769	39.6	14.8	20.6	23.4	39.6	1.7	0.0	37.2	41.8
Korea, Rep. of	2003	440	37.0	26.8	9.5	26.6	37.0	0.0	0.0	32.7	41.2
	2007	603	40.4	29.1	7.8	22.7	40.4	0.2	0.0	39.5	41.2
Lebanon	2003	261	22.9	10.4	27.5	39.1	22.9	0.0	0.0	24.9	20.3
	2007	527	23.1	16.3	15.0	37.6	23.1	8.0	0.0	23.1	23.1

DIFF = Percent correct
 Because of missing gender information, some totals may appear inconsistent.

Science: Biology / Reasoning (S032315 - S11_02)
 Label: Antelope population graph
 Type: MC Key: D

COUNTRY	Year	N	DIFF	A	B	C	D	OMIT TED	NOT REACH ED	1.GIRL %Right	2.BOY %Right
Lithuania	2003	355	74.8	8.5	9.2	7.4	74.8	0.0	0.0	77.2	72.5
	2007	569	62.4	15.4	9.5	10.1	62.4	2.6	0.0	65.9	59.0
Malaysia	2003	447	87.5	3.1	6.7	2.7	87.5	0.0	0.0	85.5	89.6
	2007	638	76.9	5.3	10.0	6.9	76.9	0.9	0.0	77.0	76.7
Norway	2003	326	59.5	13.7	14.3	12.6	59.5	0.0	0.0	59.0	59.9
	2007	661	44.5	31.6	8.8	13.1	44.5	1.9	0.0	46.3	42.9
Palestinian Nat'l Auth.	2003	417	32.9	18.1	21.8	27.2	32.9	0.0	0.0	29.2	37.6
	2007	633	27.4	18.7	15.8	36.2	27.4	1.9	0.0	28.3	26.6
Romania	2003	311	56.8	14.3	18.2	10.7	56.8	0.0	0.0	57.4	56.2
	2007	602	39.4	26.1	18.7	13.1	39.4	2.7	0.0	47.3	30.8
Russian Federation	2003	365	78.2	6.4	7.3	8.1	78.2	0.0	0.0	83.3	73.7
	2007	626	69.5	7.5	8.9	10.5	69.5	3.4	0.1	72.7	65.9
Scotland	2003	287	63.6	18.8	11.9	5.8	63.6	0.0	0.0	65.5	61.5
	2007	569	50.5	30.4	10.7	7.1	50.5	1.2	0.0	54.2	47.2
Serbia	2003	321	38.8	19.2	22.0	19.9	38.8	0.0	0.0	41.4	36.8
	2007	555	35.9	33.7	11.2	14.7	35.9	4.2	0.3	31.8	40.2
Singapore	2003	493	73.5	8.3	12.2	6.0	73.5	0.0	0.0	75.1	72.1
	2007	654	66.3	13.9	10.6	8.5	66.3	0.5	0.0	63.6	69.0
Slovenia	2003	291	57.0	16.8	16.6	9.6	57.0	0.0	0.0	58.0	56.0
	2007	576	59.5	19.1	10.0	10.2	59.5	1.4	0.0	62.6	56.3
Sweden	2003	341	60.1	11.6	15.7	12.6	60.1	0.0	0.0	55.5	64.0
	2007	713	42.7	29.6	12.4	13.6	42.7	1.7	0.2	42.3	43.0
Tunisia	2003	365	45.8	14.7	23.7	15.8	45.8	0.0	0.0	44.3	47.3
	2007	585	58.9	7.3	23.1	7.4	58.9	3.1	0.2	55.7	62.9
United States	2003	744	64.2	12.3	15.1	8.4	64.2	0.0	0.0	62.9	65.6
	2007	1054	60.4	17.4	15.2	6.5	60.4	0.3	0.2	58.8	62.0
International Avg.	2003	376	55.5	14.2	16.6	13.7	55.5	0.0	0.0	56.0	55.1
	2007	626	49.1	19.7	14.1	14.3	49.1	2.6	0.1	49.3	49.0
Basque Country, Spain	2003	201	49.5	14.1	18.2	18.1	49.5	0.0	0.0	57.4	42.2
	2007	332	44.3	25.8	10.9	16.5	44.3	2.5	0.0	37.2	51.1
Ontario, Canada	2003	351	54.2	23.0	13.1	9.7	54.2	0.0	0.0	56.1	52.1
	2007	485	47.1	32.7	9.5	8.6	47.1	2.0	0.0	48.4	45.8
Quebec, Canada	2003	364	54.4	17.9	17.0	10.7	54.4	0.0	0.0	51.1	58.3
	2007	549	42.2	37.4	8.5	8.8	42.2	3.0	0.1	42.0	42.4

DIFF = Percent correct
 Because of missing gender information, some totals may appear inconsistent.

Science: Biology / Applying (S032306 - S11_03)

Label: Eyes react to changes

Type: CR Key: -

COUNTRY	Year	N	20	29	10	19	70	79	OMIT TED	NOT REACH ED	V1	V2	1.GIRL %Right	2.BOY %Right
Armenia	2003	234	53.8	5.0	7.4	3.3	3.5	27.0	0.0	0.0	69.5	58.8	62.8	53.3
	2007	663	13.8	0.6	26.9	0.4	4.8	17.7	35.6	0.1	41.7	14.5	14.4	14.6
Australia	2003	319	55.4	0.0	6.6	1.1	6.5	30.3	0.0	0.0	63.1	55.4	55.1	55.6
	2007	583	47.8	0.3	9.7	0.0	6.2	26.9	8.9	0.2	57.7	48.0	49.9	46.4
Bahrain	2003	250	29.6	2.3	7.7	1.8	2.6	56.0	0.0	0.0	41.4	31.9	30.1	33.9
	2007	596	25.7	1.8	10.7	4.0	3.6	38.4	15.8	0.1	42.2	27.5	35.6	19.5
Botswana	2003	290	8.0	0.0	0.8	0.4	1.0	89.9	0.0	0.0	9.1	8.0	5.9	10.3
	2007	604	7.6	1.3	2.3	0.5	2.1	69.1	16.9	0.1	11.7	8.9	9.9	7.8
Bulgaria	2003	245	28.1	1.3	25.9	4.1	3.2	37.4	0.0	0.0	59.4	29.4	29.4	29.5
	2007	433	43.9	0.0	9.7	0.3	3.7	19.6	22.7	0.2	53.8	43.9	49.6	38.5
Chinese Taipei	2003	407	45.4	0.0	23.0	0.5	9.0	22.0	0.0	0.0	69.0	45.4	44.7	46.2
	2007	574	36.1	0.4	22.7	1.1	9.0	18.9	11.7	0.2	60.2	36.4	36.6	36.3
Cyprus	2003	171	33.5	4.6	5.0	1.1	4.3	51.4	0.0	0.0	44.3	38.1	33.1	43.3
	2007	621	28.6	0.9	5.3	0.9	5.5	26.0	32.8	0.0	35.7	29.4	31.6	27.1
Egypt	2003	476	17.9	0.3	3.6	0.7	1.3	76.1	0.0	0.0	22.6	18.3	21.0	16.1
	2007	945	22.4	0.3	7.2	2.6	2.2	53.5	11.8	0.0	32.4	22.7	25.7	19.7
England	2003	193	48.7	0.0	23.0	0.0	4.6	23.7	0.0	0.0	71.7	48.7	39.6	57.5
	2007	585	38.7	0.0	13.5	0.7	4.4	32.0	10.7	0.0	52.9	38.7	39.3	38.0
Ghana	2003	154	3.1	1.2	2.1	1.9	0.6	91.2	0.0	0.0	8.2	4.2	1.6	6.4
	2007	762	2.6	0.0	1.4	0.1	0.6	42.8	52.3	0.2	4.1	2.6	1.9	3.2
Hong Kong SAR	2003	367	51.0	0.0	11.9	2.4	11.7	23.1	0.0	0.0	65.2	51.0	54.2	48.1
	2007	494	49.1	0.2	12.0	2.5	5.8	18.3	12.0	0.0	63.9	49.4	51.4	47.5
Hungary	2003	236	59.5	5.3	9.5	0.4	8.5	16.8	0.0	0.0	74.7	64.8	66.9	62.4
	2007	593	52.5	0.3	19.2	0.1	5.3	14.8	7.8	0.0	72.1	52.8	52.8	52.8
Indonesia	2003	342	12.6	2.5	2.4	0.9	4.1	77.5	0.0	0.0	18.4	15.1	14.2	16.0
	2007	595	9.4	0.5	5.6	0.4	3.9	65.9	14.1	0.1	16.0	10.0	11.2	8.5
Iran, Islamic Rep. of	2003	316	34.1	5.7	2.3	22.1	5.7	30.0	0.0	0.0	64.3	39.9	41.5	38.8
	2007	580	20.0	0.7	7.4	2.5	3.2	47.8	18.4	0.1	30.5	20.7	23.6	18.2
Israel	2003	278	42.5	2.3	10.6	1.4	6.2	37.0	0.0	0.0	56.8	44.7	42.0	47.9
	2007	461	29.7	0.6	12.8	0.9	3.7	29.0	22.4	0.9	44.0	30.4	32.3	28.3
Italy	2003	274	54.2	0.0	13.6	1.3	5.2	25.7	0.0	0.0	69.1	54.2	55.4	53.0
	2007	625	41.9	1.0	12.7	0.4	5.9	19.6	18.4	0.0	56.1	43.0	43.4	42.6
Japan	2003	367	51.2	0.0	22.0	0.0	10.1	16.6	0.0	0.0	73.2	51.2	52.0	50.5
	2007	613	45.2	0.0	19.1	1.0	13.4	15.8	5.5	0.0	65.3	45.2	47.8	42.6
Jordan	2003	243	31.0	3.6	12.6	3.6	6.5	42.6	0.0	0.0	50.9	34.6	36.6	31.3
	2007	769	7.9	0.8	14.3	0.7	3.5	55.0	18.0	0.0	23.6	8.7	8.8	8.6
Korea, Rep. of	2003	426	69.1	1.1	5.1	3.4	5.1	16.2	0.0	0.0	78.7	70.2	73.7	66.7
	2007	603	70.7	0.0	2.6	1.3	8.1	14.9	2.4	0.0	74.6	70.7	75.9	66.0
Lebanon	2003	188	24.0	4.0	4.0	9.4	6.0	52.7	0.0	0.0	41.4	28.0	26.7	30.0
	2007	537	11.8	3.3	6.0	2.9	2.6	40.6	32.5	0.3	24.0	15.1	14.1	16.4

V1 = Percent scoring 1 or better V2 = Percent scoring 2 or better
 Percent right for boys and girls corresponds to the percent obtaining the maximum score on the item.
 Because of missing gender information, some totals may appear inconsistent.

Science: Biology / Applying (S032306 - S11_03)
 Label: Eyes react to changes
 Type: CR Key: -

COUNTRY	Year	N	20	29	10	19	70	79	OMIT TED	NOT REACH ED	V1	V2	1.GIRL %Right	2.BOY %Right
Lithuania	2003	310	36.8	0.9	2.6	0.5	6.7	52.6	0.0	0.0	40.7	37.7	39.3	36.0
	2007	573	49.3	0.3	0.9	3.2	4.6	31.1	10.5	0.0	53.8	49.6	52.4	47.0
Malaysia	2003	374	47.0	1.1	7.2	1.6	7.0	36.1	0.0	0.0	56.9	48.1	50.3	45.9
	2007	638	32.9	0.9	6.4	2.7	6.0	40.4	10.8	0.0	42.8	33.7	35.9	31.3
Norway	2003	317	59.8	0.0	9.3	0.4	4.4	26.0	0.0	0.0	69.6	59.8	64.2	55.9
	2007	661	47.5	0.8	12.7	0.2	4.3	26.4	7.9	0.0	61.3	48.4	51.8	45.1
Palestinian Nat'l Auth.	2003	299	23.0	4.4	5.1	2.1	5.3	60.0	0.0	0.0	34.7	27.5	28.6	26.0
	2007	632	13.9	2.9	7.7	2.5	3.1	52.8	17.1	0.0	27.0	16.8	19.7	13.8
Romania	2003	221	44.1	5.6	8.0	5.4	11.1	25.8	0.0	0.0	63.1	49.7	51.4	48.0
	2007	602	18.7	0.6	10.7	8.1	5.6	28.7	27.7	0.0	38.0	19.3	21.2	17.1
Russian Federation	2003	325	54.5	0.5	6.9	0.0	4.8	33.2	0.0	0.0	61.9	55.0	54.3	55.7
	2007	626	57.6	1.0	4.3	0.6	6.9	20.6	9.0	0.1	63.4	58.6	65.4	51.0
Scotland	2003	243	47.5	0.0	20.5	0.0	4.9	27.1	0.0	0.0	67.9	47.5	48.0	47.0
	2007	569	41.8	0.0	10.4	0.2	5.7	26.6	15.4	0.0	52.4	41.8	40.5	43.0
Serbia	2003	245	29.4	0.9	13.5	5.9	6.6	43.7	0.0	0.0	49.7	30.3	34.2	26.6
	2007	577	29.5	0.5	19.9	2.9	3.1	22.8	20.5	0.7	52.8	30.0	33.4	26.4
Singapore	2003	419	29.0	0.0	5.0	0.0	5.3	60.6	0.0	0.0	34.1	29.0	26.4	31.5
	2007	654	19.9	0.8	6.0	0.7	6.1	55.1	11.3	0.0	27.5	20.7	20.4	21.1
Slovenia	2003	276	40.0	1.4	7.8	10.4	13.7	26.8	0.0	0.0	59.5	41.3	43.1	39.4
	2007	576	54.0	0.0	11.9	0.1	7.3	19.1	7.5	0.0	66.1	54.0	56.8	51.2
Sweden	2003	299	63.6	1.6	10.9	0.2	3.7	20.0	0.0	0.0	76.3	65.2	67.8	62.9
	2007	713	51.5	1.2	9.9	3.9	4.4	20.0	9.0	0.2	66.5	52.7	63.3	43.6
Tunisia	2003	224	11.9	0.4	6.2	0.9	3.1	77.4	0.0	0.0	19.5	12.3	12.6	12.0
	2007	585	7.6	0.6	18.7	1.1	2.3	49.8	19.7	0.2	28.0	8.1	6.3	10.3
United States	2003	678	45.1	0.6	16.5	3.3	4.2	30.4	0.0	0.0	65.4	45.6	40.8	50.9
	2007	1054	41.4	2.4	13.5	0.9	5.7	30.1	5.9	0.2	58.2	43.8	46.6	40.9
International Avg.	2003	303	38.9	1.7	9.7	2.7	5.7	41.3	0.0	0.0	53.0	40.6	40.8	40.4
	2007	627	32.5	0.8	10.7	1.5	4.9	33.0	16.5	0.1	45.5	33.2	35.4	31.0
Basque Country, Spain	2003	177	44.6	0.0	9.0	6.2	11.1	29.1	0.0	0.0	59.8	44.6	46.5	42.6
	2007	332	48.4	0.2	12.4	0.2	5.8	20.2	12.8	0.0	61.2	48.6	46.9	50.3
Ontario, Canada	2003	306	54.4	0.7	7.3	2.0	8.0	27.7	0.0	0.0	64.2	55.0	49.5	61.4
	2007	485	47.8	0.0	14.0	0.0	5.4	21.9	10.9	0.0	61.8	47.8	48.7	46.8
Quebec, Canada	2003	331	42.6	0.4	20.6	4.1	9.6	22.6	0.0	0.0	67.7	43.0	50.8	33.2
	2007	549	47.4	0.0	12.3	0.3	6.5	25.4	7.6	0.4	60.1	47.4	49.2	45.8

V1 = Percent scoring 1 or better V2 = Percent scoring 2 or better
 Percent right for boys and girls corresponds to the percent obtaining the maximum score on the item.
 Because of missing gender information, some totals may appear inconsistent.

Science: Biology / Knowing (S032640 - S11_04)
 Label: Exercise is important for health
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COUNTRY	Year	N	10	11	12	19	70	79	OMIT TED	NOT REACH ED	V1	1.GIRL %Right	2.BOY %Right
Armenia	2003	278	2.3	26.2	38.3	27.2	4.8	1.2	0.0	0.0	94.0	93.1	95.4
	2007	665	27.9	11.9	10.7	8.3	11.5	5.4	24.2	0.1	58.8	61.2	56.0
Australia	2003	361	37.8	14.0	8.6	5.1	30.4	4.1	0.0	0.0	65.4	63.7	67.1
	2007	583	47.4	17.4	5.1	1.9	22.9	3.6	1.5	0.2	71.8	72.5	71.2
Bahrain	2003	315	22.0	16.4	18.7	15.5	17.5	10.0	0.0	0.0	72.6	78.7	65.6
	2007	596	18.1	19.9	19.7	5.9	18.1	8.8	9.3	0.2	63.6	70.5	56.8
Botswana	2003	372	4.2	2.6	8.7	9.9	34.3	40.3	0.0	0.0	25.4	26.8	23.8
	2007	602	7.1	1.7	9.4	5.9	35.6	31.9	8.2	0.2	24.1	28.1	19.5
Bulgaria	2003	279	11.7	14.6	18.1	10.4	11.4	33.9	0.0	0.0	54.7	57.4	51.1
	2007	433	12.3	11.9	18.6	3.5	18.6	11.7	23.2	0.3	46.3	44.5	47.9
Chinese Taipei	2003	428	5.9	36.0	1.6	39.8	8.9	7.8	0.0	0.0	83.2	85.5	81.0
	2007	574	11.5	26.2	1.9	18.6	17.9	17.3	6.6	0.2	58.1	61.6	54.9
Cyprus	2003	266	26.5	26.2	5.3	2.0	25.9	14.2	0.0	0.0	60.0	61.0	58.7
	2007	621	22.5	23.4	3.9	3.4	21.7	9.7	15.4	0.0	53.2	57.9	48.1
Egypt	2003	535	2.3	8.8	13.9	3.2	30.6	41.3	0.0	0.0	28.1	31.8	25.0
	2007	944	7.0	10.8	2.7	0.8	57.5	12.1	9.0	0.0	21.4	22.6	20.2
England	2003	223	35.2	31.1	6.6	1.4	18.3	7.4	0.0	0.0	74.3	75.4	73.1
	2007	585	42.2	19.5	3.5	2.6	22.3	7.6	2.3	0.0	67.8	68.8	66.7
Ghana	2003	306	3.8	2.2	1.3	4.3	46.3	42.1	0.0	0.0	11.6	10.3	12.7
	2007	762	4.2	2.2	1.1	2.9	42.7	23.6	22.9	0.3	10.4	8.7	11.9
Hong Kong SAR	2003	383	13.7	36.2	3.3	24.9	11.5	10.3	0.0	0.0	78.2	77.8	78.6
	2007	494	14.8	32.6	4.5	12.5	19.3	8.5	7.8	0.0	64.4	67.7	61.3
Hungary	2003	247	24.6	14.1	29.2	10.3	18.7	3.1	0.0	0.0	78.2	78.0	78.4
	2007	593	41.9	10.7	15.8	7.3	15.8	2.6	5.9	0.0	75.7	76.6	75.0
Indonesia	2003	438	5.7	10.5	16.4	12.0	37.0	18.4	0.0	0.0	44.6	41.6	47.9
	2007	596	9.3	10.9	12.7	8.0	41.5	12.9	4.5	0.1	40.9	40.0	42.1
Iran, Islamic Rep. of	2003	385	9.1	12.0	14.8	18.2	39.2	6.6	0.0	0.0	54.2	57.4	52.0
	2007	580	12.7	12.4	6.1	16.6	40.0	6.8	5.1	0.2	47.9	49.0	46.9
Israel	2003	314	26.6	22.8	18.0	6.2	14.1	12.3	0.0	0.0	73.6	73.1	74.2
	2007	461	29.1	12.4	10.7	3.0	21.1	9.6	13.2	0.9	55.2	55.9	54.6
Italy	2003	303	20.7	14.6	19.8	5.7	30.3	8.9	0.0	0.0	60.8	57.4	64.2
	2007	625	22.0	15.1	15.8	8.8	19.8	7.6	10.7	0.1	61.8	57.7	65.6
Japan	2003	377	18.5	20.2	10.9	12.1	20.1	18.2	0.0	0.0	61.7	56.8	66.6
	2007	613	17.3	15.5	6.8	19.3	22.7	13.6	4.8	0.0	58.9	64.0	53.8
Jordan	2003	321	20.1	23.9	19.2	18.4	12.1	6.2	0.0	0.0	81.7	83.0	80.0
	2007	769	18.3	27.1	9.9	3.4	21.7	14.4	5.1	0.0	58.7	58.1	59.3
Korea, Rep. of	2003	431	14.7	16.2	4.8	15.4	42.8	6.1	0.0	0.0	51.1	55.6	46.7
	2007	603	21.4	11.6	8.3	13.1	30.3	13.0	2.4	0.0	54.3	54.8	53.9
Lebanon	2003	192	6.9	17.0	10.1	5.2	23.6	37.2	0.0	0.0	39.2	43.7	33.1
	2007	537	4.9	9.0	6.5	3.9	17.0	23.9	34.4	0.4	24.3	23.3	25.6

V1 = Percent scoring 1 or better V2 = Percent scoring 2 or better
 Percent right for boys and girls corresponds to the percent obtaining the maximum score on the item.
 Because of missing gender information, some totals may appear inconsistent.

Science: Biology / Knowing (S032640 - S11_04)
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COUNTRY	Year	N	10	11	12	19	70	79	OMIT TED	NOT REACH ED	V1	1.GIRL %Right	2.BOY %Right
Lithuania	2003	354	11.4	20.7	13.4	6.7	37.0	10.8	0.0	0.0	52.2	52.6	51.9
	2007	573	9.3	23.1	15.3	7.9	32.9	8.3	3.2	0.0	55.7	62.2	49.6
Malaysia	2003	427	13.1	15.0	10.2	13.1	36.5	12.1	0.0	0.0	51.4	51.2	51.6
	2007	638	12.1	10.9	6.3	7.2	43.1	15.9	4.3	0.1	36.5	36.1	37.0
Norway	2003	320	14.7	34.3	7.9	7.5	30.6	5.1	0.0	0.0	64.4	62.1	66.4
	2007	661	25.6	18.4	4.7	5.4	36.7	6.7	2.3	0.1	54.1	55.2	53.0
Palestinian Nat'l Auth.	2003	400	11.5	14.4	18.3	31.0	12.8	12.0	0.0	0.0	75.2	82.9	64.8
	2007	632	10.4	18.2	13.1	6.6	24.8	17.9	9.0	0.0	48.3	55.1	41.5
Romania	2003	256	6.9	19.4	23.9	6.4	30.8	12.5	0.0	0.0	56.7	57.6	55.8
	2007	602	13.8	11.8	7.9	7.7	29.4	14.2	15.4	0.0	41.1	44.3	37.5
Russian Federation	2003	313	4.0	17.2	31.0	11.1	31.7	5.1	0.0	0.0	63.2	69.1	57.8
	2007	625	2.0	17.7	28.2	3.6	30.8	7.6	10.1	0.1	51.5	57.4	44.7
Scotland	2003	258	39.4	25.7	8.1	1.0	21.8	4.0	0.0	0.0	74.2	72.4	76.1
	2007	569	43.9	16.2	4.4	1.0	23.5	8.6	2.4	0.0	65.5	70.2	61.2
Serbia	2003	282	7.8	6.7	14.0	4.9	36.4	30.1	0.0	0.0	33.5	30.6	36.1
	2007	577	8.8	11.2	9.9	17.4	24.1	13.4	14.5	0.7	47.3	54.8	39.2
Singapore	2003	485	32.0	19.6	5.2	0.5	34.7	7.9	0.0	0.0	57.4	65.3	50.5
	2007	654	31.3	19.4	5.3	3.4	29.3	8.2	3.0	0.0	59.5	65.8	53.2
Slovenia	2003	290	18.5	9.1	8.8	8.8	46.4	8.4	0.0	0.0	45.2	46.6	43.7
	2007	576	28.4	9.4	11.3	6.3	32.1	10.8	1.8	0.0	55.3	57.2	53.5
Sweden	2003	322	25.5	21.2	9.5	2.6	34.5	6.6	0.0	0.0	58.8	66.0	52.2
	2007	713	28.0	19.7	11.3	1.4	31.3	3.2	4.8	0.3	60.4	62.0	59.0
Tunisia	2003	380	16.1	16.0	14.7	14.2	26.7	12.3	0.0	0.0	61.0	61.9	60.0
	2007	585	19.6	18.1	4.8	5.4	25.1	20.1	6.6	0.3	47.9	47.4	48.4
United States	2003	733	31.9	20.5	9.7	4.3	29.3	4.3	0.0	0.0	66.3	65.4	67.3
	2007	1054	36.5	21.5	7.7	4.2	25.4	3.4	1.1	0.2	70.0	71.5	68.5
International Avg.	2003	351	16.5	18.3	13.4	10.9	26.9	14.0	0.0	0.0	59.2	60.3	57.9
	2007	627	20.0	15.7	9.2	6.9	27.5	11.6	8.9	0.2	51.8	54.0	49.6
Basque Country, Spain	2003	194	42.0	8.8	14.2	6.1	27.2	1.8	0.0	0.0	71.1	71.0	71.1
	2007	332	50.8	11.3	7.3	6.2	16.1	2.5	5.7	0.1	75.6	76.5	74.7
Ontario, Canada	2003	340	28.7	19.3	13.3	2.4	30.0	6.3	0.0	0.0	63.7	68.9	57.9
	2007	485	36.3	25.8	5.1	3.3	24.7	1.8	2.7	0.5	70.4	73.2	67.5
Quebec, Canada	2003	355	28.8	15.7	8.5	3.1	38.1	5.7	0.0	0.0	56.2	57.9	54.3
	2007	549	33.0	18.9	4.0	2.2	25.9	6.8	8.9	0.4	58.1	61.1	55.2

V1 = Percent scoring 1 or better V2 = Percent scoring 2 or better
 Percent right for boys and girls corresponds to the percent obtaining the maximum score on the item.
 Because of missing gender information, some totals may appear inconsistent.

Science: Chemistry / Applying (S032579 - S11_05)
 Label: Diagram for structure of matter
 Type: MC Key: B

COUNTRY	Year	N	DIFF	A	B	C	D	OMIT TED	NOT REACH ED	1.GIRL %Right	2.BOY %Right
Armenia	2003	350	64.8	23.6	64.8	6.8	4.8	0.0	0.0	68.3	60.3
	2007	662	54.8	23.3	54.8	3.4	5.1	13.1	0.3	54.7	55.0
Australia	2003	362	38.1	36.8	38.1	11.9	13.2	0.0	0.0	34.8	41.1
	2007	583	36.6	36.7	36.6	11.5	12.8	2.1	0.4	30.3	42.1
Bahrain	2003	343	35.7	46.7	35.7	9.7	7.8	0.0	0.0	38.8	32.6
	2007	596	31.3	39.9	31.3	10.0	16.2	2.5	0.2	29.9	32.7
Botswana	2003	406	30.5	14.2	30.5	20.9	34.4	0.0	0.0	34.1	26.8
	2007	602	34.4	15.6	34.4	15.0	29.4	5.4	0.3	37.8	30.6
Bulgaria	2003	316	47.6	31.5	47.6	10.5	10.4	0.0	0.0	50.4	44.0
	2007	433	41.9	28.3	41.9	9.7	15.0	4.6	0.5	37.2	46.3
Chinese Taipei	2003	447	53.4	29.1	53.4	6.7	10.8	0.0	0.0	50.4	56.5
	2007	574	39.4	42.2	39.4	5.9	12.0	0.3	0.2	42.6	36.3
Cyprus	2003	322	37.1	33.5	37.1	13.0	16.4	0.0	0.0	41.3	33.1
	2007	621	39.5	44.0	39.5	9.2	5.4	1.7	0.2	38.0	41.1
Egypt	2003	574	34.6	32.2	34.6	14.5	18.7	0.0	0.0	34.2	34.9
	2007	941	36.1	32.4	36.1	14.8	14.0	2.7	0.0	38.4	33.9
England	2003	227	36.8	34.7	36.8	11.5	16.9	0.0	0.0	30.6	42.7
	2007	585	37.7	28.8	37.7	14.2	18.0	1.3	0.1	35.9	39.7
Ghana	2003	411	21.1	63.4	21.1	7.5	8.0	0.0	0.0	19.0	22.8
	2007	762	22.2	54.1	22.2	10.2	8.9	4.0	0.6	21.3	22.9
Hong Kong SAR	2003	414	18.4	53.1	18.4	14.2	14.2	0.0	0.0	17.2	19.5
	2007	494	17.9	52.8	17.9	11.5	15.8	2.0	0.0	14.5	21.0
Hungary	2003	277	53.0	41.0	53.0	5.6	0.4	0.0	0.0	53.0	53.0
	2007	593	49.9	39.7	49.9	5.1	3.9	1.4	0.0	46.5	52.9
Indonesia	2003	450	33.3	43.6	33.3	11.5	11.6	0.0	0.0	34.6	31.9
	2007	596	37.1	38.2	37.1	9.9	11.1	3.4	0.3	36.1	38.3
Iran, Islamic Rep. of	2003	400	44.8	32.4	44.8	11.0	11.8	0.0	0.0	45.0	44.6
	2007	580	41.4	30.7	41.4	10.6	11.6	5.6	0.2	42.7	40.3
Israel	2003	345	58.9	25.4	58.9	7.0	8.7	0.0	0.0	63.4	53.4
	2007	461	44.4	28.5	44.4	7.7	13.0	4.9	1.5	45.1	43.9
Italy	2003	346	55.2	32.1	55.2	5.4	7.3	0.0	0.0	54.9	55.5
	2007	625	48.3	35.6	48.3	6.0	6.3	3.8	0.1	47.9	48.7
Japan	2003	404	25.2	33.7	25.2	18.2	22.9	0.0	0.0	28.4	22.2
	2007	613	27.4	29.8	27.4	19.0	23.2	0.6	0.0	24.8	29.9
Jordan	2003	346	34.6	37.6	34.6	12.1	15.7	0.0	0.0	39.6	29.0
	2007	769	47.0	33.3	47.0	8.0	10.8	0.9	0.0	52.9	41.5
Korea, Rep. of	2003	439	36.1	40.0	36.1	11.0	12.9	0.0	0.0	36.1	36.1
	2007	603	32.5	37.8	32.5	13.9	15.7	0.2	0.0	29.0	35.7
Lebanon	2003	318	59.7	30.1	59.7	4.6	5.7	0.0	0.0	57.2	62.9
	2007	527	50.2	33.4	50.2	6.0	4.7	5.4	0.4	49.9	50.4

DIFF = Percent correct
 Because of missing gender information, some totals may appear inconsistent.

Science: Chemistry / Applying (S032579 - S11_05)
 Label: Diagram for structure of matter
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COUNTRY	Year	N	DIFF	A	B	C	D	OMIT TED	NOT REACH ED	1.GIRL %Right	2.BOY %Right
Lithuania	2003	362	56.4	29.8	56.4	7.6	6.2	0.0	0.0	56.6	56.2
	2007	572	53.0	32.3	53.0	6.5	6.0	2.2	0.0	55.0	51.1
Malaysia	2003	427	35.4	41.3	35.4	13.2	10.1	0.0	0.0	33.8	37.1
	2007	638	36.5	34.1	36.5	12.4	15.9	1.1	0.1	37.0	35.9
Norway	2003	326	32.2	34.5	32.2	15.8	17.5	0.0	0.0	34.6	30.1
	2007	661	32.9	26.4	32.9	14.2	18.6	7.8	0.1	31.3	34.4
Palestinian Nat'l Auth.	2003	426	36.2	33.0	36.2	12.6	18.2	0.0	0.0	41.1	30.1
	2007	632	35.0	35.5	35.0	11.8	14.5	3.2	0.0	37.0	33.1
Romania	2003	319	50.9	34.4	50.9	10.8	3.8	0.0	0.0	57.4	43.9
	2007	602	41.4	38.3	41.4	8.5	7.9	3.9	0.0	42.6	40.2
Russian Federation	2003	369	56.9	31.6	56.9	6.5	5.0	0.0	0.0	60.9	53.4
	2007	625	57.2	28.5	57.2	4.5	5.9	3.5	0.3	59.4	54.8
Scotland	2003	286	30.6	38.0	30.6	13.6	17.8	0.0	0.0	31.0	30.1
	2007	569	28.9	35.0	28.9	11.7	21.1	3.3	0.0	28.6	29.2
Serbia	2003	334	56.8	30.6	56.8	6.6	6.0	0.0	0.0	55.6	57.7
	2007	567	46.7	30.9	46.7	8.5	7.8	5.3	0.7	47.8	45.5
Singapore	2003	498	64.0	28.0	64.0	2.9	5.0	0.0	0.0	65.0	63.2
	2007	654	61.3	26.5	61.3	4.1	6.5	1.6	0.0	62.2	60.5
Slovenia	2003	291	53.8	21.8	53.8	10.0	14.4	0.0	0.0	54.7	52.9
	2007	576	59.2	19.7	59.2	8.5	11.2	1.4	0.0	61.0	57.4
Sweden	2003	337	36.9	41.5	36.9	8.0	13.6	0.0	0.0	38.4	35.6
	2007	713	40.0	30.4	40.0	10.7	13.2	5.5	0.3	37.5	42.1
Tunisia	2003	281	30.8	21.1	30.8	23.8	24.3	0.0	0.0	29.3	32.4
	2007	585	39.2	22.7	39.2	16.6	14.1	7.1	0.3	39.4	38.9
United States	2003	747	45.5	37.0	45.5	8.2	9.3	0.0	0.0	44.9	46.0
	2007	1054	43.8	38.6	43.8	7.7	9.0	0.7	0.2	42.3	45.2
International Avg.	2003	379	42.6	34.5	42.6	10.7	12.2	0.0	0.0	43.5	41.6
	2007	626	40.8	33.4	40.8	9.9	12.3	3.4	0.2	40.5	41.0
Basque Country, Spain	2003	207	47.5	43.8	47.5	4.1	4.7	0.0	0.0	51.3	43.8
	2007	332	49.9	33.4	49.9	7.5	6.7	2.4	0.1	53.0	46.8
Ontario, Canada	2003	351	38.7	34.6	38.7	9.1	17.6	0.0	0.0	42.9	34.2
	2007	485	37.2	29.6	37.2	14.9	16.1	1.3	0.8	39.1	35.1
Quebec, Canada	2003	366	42.6	32.3	42.6	11.7	13.4	0.0	0.0	42.1	43.3
	2007	549	45.3	29.0	45.3	12.1	10.9	2.1	0.6	42.2	48.2

DIFF = Percent correct
 Because of missing gender information, some totals may appear inconsistent.

Science: Chemistry / Applying (S032570 - S11_06)
 Label: Identify if substance is metal
 Type: CR Key: -

COUNTRY	Year	N	10	11	12	19	70	79	OMIT TED	NOT REACH ED	V1	1.GIRL %Right	2.BOY %Right
Armenia	2003	121	61.4	10.1	8.8	2.0	4.9	12.9	0.0	0.0	82.3	83.0	81.5
	2007	665	19.6	2.3	3.6	2.5	7.8	8.7	55.1	0.5	27.9	27.3	28.6
Australia	2003	267	27.0	8.1	4.8	0.0	18.4	41.8	0.0	0.0	39.8	39.4	40.2
	2007	583	19.6	11.1	8.3	0.0	8.2	32.4	19.8	0.7	39.0	36.8	40.9
Bahrain	2003	172	32.0	12.8	0.0	0.7	11.8	42.7	0.0	0.0	45.5	42.9	49.3
	2007	596	25.5	4.9	2.6	0.8	11.2	27.7	27.1	0.2	33.8	41.9	25.9
Botswana	2003	254	8.9	5.6	0.3	0.7	2.8	81.7	0.0	0.0	15.5	15.0	16.0
	2007	602	7.2	0.5	0.9	0.4	2.8	63.4	23.9	0.8	9.0	8.7	9.4
Bulgaria	2003	171	30.6	25.9	7.8	1.2	2.4	32.2	0.0	0.0	65.4	67.9	62.4
	2007	433	21.2	13.1	2.3	0.3	1.5	10.6	50.4	0.5	36.9	37.6	36.2
Chinese Taipei	2003	345	39.3	15.6	9.6	4.2	6.0	25.2	0.0	0.0	68.8	71.4	65.7
	2007	574	33.7	13.0	12.9	0.5	0.8	18.6	20.4	0.2	60.0	61.0	59.1
Cyprus	2003	142	15.5	4.8	17.9	3.1	6.6	52.1	0.0	0.0	41.3	40.8	41.8
	2007	621	20.4	4.5	1.1	4.1	12.3	13.9	43.6	0.2	30.1	33.6	26.3
Egypt	2003	387	9.1	6.9	0.9	0.1	4.4	78.6	0.0	0.0	17.0	15.5	18.3
	2007	945	9.6	6.1	0.4	0.1	3.8	46.8	33.3	0.0	16.1	16.8	15.5
England	2003	191	39.5	16.0	10.4	0.0	14.6	19.6	0.0	0.0	65.8	62.2	69.3
	2007	585	43.0	10.3	7.1	0.0	10.3	16.7	12.6	0.1	60.4	58.2	62.8
Ghana	2003	141	6.6	7.5	1.0	1.2	6.3	77.4	0.0	0.0	16.3	15.0	17.3
	2007	762	5.7	5.8	1.1	0.3	4.2	23.7	58.2	0.9	12.9	10.2	15.2
Hong Kong SAR	2003	288	35.4	6.7	16.0	0.0	13.5	28.4	0.0	0.0	58.1	61.4	54.9
	2007	494	26.8	1.4	14.8	1.2	3.3	25.1	27.4	0.0	44.2	46.1	42.4
Hungary	2003	201	33.2	24.4	11.1	0.8	6.8	23.8	0.0	0.0	69.4	71.7	67.4
	2007	593	33.7	10.1	6.8	0.2	7.5	18.1	23.6	0.0	50.7	47.8	53.3
Indonesia	2003	223	14.2	13.4	0.4	2.1	1.9	68.0	0.0	0.0	30.1	23.2	36.7
	2007	596	7.3	3.5	2.2	0.6	0.9	55.2	29.8	0.5	13.7	13.6	13.7
Iran, Islamic Rep. of	2003	212	48.3	3.6	6.2	2.5	3.5	35.8	0.0	0.0	60.7	71.7	54.4
	2007	580	28.4	1.3	4.8	2.8	7.1	14.8	40.6	0.2	37.3	41.4	33.9
Israel	2003	240	60.3	8.3	4.3	1.5	4.3	21.3	0.0	0.0	74.4	77.1	71.1
	2007	461	47.7	5.5	0.5	0.4	2.0	11.1	31.3	1.5	54.1	55.0	53.4
Italy	2003	142	39.0	8.7	3.0	0.0	3.9	45.4	0.0	0.0	50.7	48.7	52.2
	2007	623	16.5	2.2	0.9	2.5	3.3	13.9	60.5	0.1	22.2	20.8	23.5
Japan	2003	324	38.0	8.7	5.9	0.0	23.4	24.0	0.0	0.0	52.6	52.9	52.3
	2007	613	44.4	20.4	2.2	0.0	8.6	12.3	12.2	0.0	67.0	67.2	66.7
Jordan	2003	218	48.6	12.2	6.1	1.9	4.5	26.7	0.0	0.0	68.8	75.8	56.8
	2007	769	36.8	7.6	2.7	0.9	2.6	29.3	20.0	0.0	48.0	57.3	39.4
Korea, Rep. of	2003	351	20.4	4.5	3.7	0.9	9.3	61.3	0.0	0.0	29.4	29.2	29.6
	2007	603	22.3	0.5	0.5	0.0	19.8	41.0	15.9	0.0	23.4	22.5	24.1
Lebanon	2003	164	36.1	11.8	7.1	2.0	24.0	19.0	0.0	0.0	57.0	59.2	53.4
	2007	537	17.5	2.9	3.8	1.1	7.3	23.2	43.7	0.5	25.3	25.5	25.1

V1 = Percent scoring 1 or better V2 = Percent scoring 2 or better
 Percent right for boys and girls corresponds to the percent obtaining the maximum score on the item.
 Because of missing gender information, some totals may appear inconsistent.

Science: Chemistry / Applying (S032570 - S11_06)
 Label: Identify if substance is metal
 Type: CR Key: -

COUNTRY	Year	N	10	11	12	19	70	79	OMIT TED	NOT REACH ED	V1	1.GIRL %Right	2.BOY %Right
Lithuania	2003	276	41.4	21.9	5.8	0.6	10.3	19.9	0.0	0.0	69.8	71.1	68.6
	2007	573	21.3	8.4	10.2	0.3	10.9	23.2	25.5	0.2	40.2	39.0	41.3
Malaysia	2003	324	25.1	19.4	2.5	3.1	12.1	37.8	0.0	0.0	50.0	47.8	52.3
	2007	637	15.1	6.5	2.0	1.3	12.9	42.6	19.3	0.3	24.9	25.7	24.0
Norway	2003	211	26.5	16.4	5.4	2.2	2.2	47.3	0.0	0.0	50.5	49.4	51.5
	2007	661	9.5	6.7	4.3	0.5	7.0	38.0	33.9	0.1	20.9	18.7	23.0
Palestinian Nat'l Auth.	2003	257	32.7	17.0	0.0	0.0	7.2	43.1	0.0	0.0	49.7	55.0	42.0
	2007	631	23.6	4.5	0.2	0.3	6.9	37.5	27.1	0.0	28.5	32.5	24.5
Romania	2003	149	20.9	20.3	12.8	2.2	11.3	32.5	0.0	0.0	56.1	68.0	43.0
	2007	602	7.9	9.5	5.4	0.8	9.1	23.6	43.7	0.0	23.5	26.4	20.4
Russian Federation	2003	209	37.9	22.3	6.0	1.0	6.5	26.3	0.0	0.0	67.2	63.9	69.9
	2007	626	19.3	14.8	5.4	0.1	8.6	20.7	30.5	0.6	39.6	39.4	39.8
Scotland	2003	190	24.4	12.3	14.3	0.0	13.3	35.6	0.0	0.0	51.0	48.0	54.0
	2007	569	22.2	8.5	6.8	0.0	4.3	28.8	29.2	0.2	37.6	37.0	38.1
Serbia	2003	163	16.9	3.9	5.8	2.6	19.8	51.1	0.0	0.0	29.2	25.2	32.0
	2007	577	8.8	3.7	3.5	1.4	8.0	19.9	53.7	1.0	17.4	14.1	20.9
Singapore	2003	421	39.8	15.8	9.0	0.0	11.0	24.4	0.0	0.0	64.6	70.6	59.2
	2007	654	42.3	9.3	4.1	0.4	15.5	20.3	8.2	0.0	56.0	57.3	54.8
Slovenia	2003	235	29.7	22.5	3.3	2.5	11.5	30.6	0.0	0.0	58.0	64.5	51.4
	2007	576	36.6	18.9	5.2	0.3	8.6	22.3	8.0	0.0	61.1	62.4	59.8
Sweden	2003	246	35.0	9.4	2.9	0.3	12.7	39.6	0.0	0.0	47.6	49.4	46.0
	2007	713	23.5	6.9	2.5	0.4	12.9	24.7	28.6	0.5	33.3	34.9	32.0
Tunisia	2003	208	16.5	4.4	1.4	4.3	4.6	68.6	0.0	0.0	26.7	25.0	28.3
	2007	585	10.4	4.2	1.8	0.5	10.3	36.8	35.3	0.6	17.0	16.9	17.2
United States	2003	612	19.1	21.3	2.5	0.5	11.4	45.2	0.0	0.0	43.4	44.5	42.1
	2007	1054	19.4	23.3	6.8	0.3	6.8	31.6	11.6	0.3	49.8	48.7	50.8
International Avg.	2003	244	30.6	12.8	6.0	1.4	9.3	40.0	0.0	0.0	50.7	51.7	49.4
	2007	627	22.6	7.6	4.2	0.8	7.5	26.6	30.4	0.3	35.2	35.8	34.6
Basque Country, Spain	2003	105	16.6	16.3	5.4	1.9	12.8	47.0	0.0	0.0	40.2	45.3	35.5
	2007	332	11.5	5.5	5.2	0.9	8.8	22.8	45.1	0.1	23.1	23.0	23.3
Ontario, Canada	2003	261	24.3	7.8	0.5	0.0	11.9	55.5	0.0	0.0	32.6	31.3	33.9
	2007	485	22.6	6.4	4.3	0.5	6.2	33.7	25.4	0.8	33.9	35.5	32.3
Quebec, Canada	2003	276	27.0	12.5	3.7	1.2	12.3	43.4	0.0	0.0	44.4	41.2	47.8
	2007	549	17.3	8.4	5.9	0.0	11.5	29.9	26.6	0.6	31.5	31.5	31.6

V1 = Percent scoring 1 or better V2 = Percent scoring 2 or better
 Percent right for boys and girls corresponds to the percent obtaining the maximum score on the item.
 Because of missing gender information, some totals may appear inconsistent.

Science: Physics / Knowing (S032024 - S11_07)
 Label: Energy conversion in a flashlight
 Type: MC Key: C

COUNTRY	Year	N	DIFF	A	B	C	D	OMIT TED	NOT REACH ED	1.GIRL %Right	2.BOY %Right
Armenia	2003	340	31.8	45.2	7.0	31.8	16.0	0.0	0.0	30.1	33.7
	2007	665	27.9	39.2	7.8	27.9	10.4	14.3	0.5	26.9	28.9
Australia	2003	366	42.9	32.4	10.9	42.9	13.8	0.0	0.0	41.8	43.9
	2007	583	36.3	39.8	9.4	36.3	12.0	1.8	0.7	32.1	40.1
Bahrain	2003	346	44.7	35.2	11.0	44.7	9.1	0.0	0.0	49.7	39.6
	2007	596	40.8	38.3	10.9	40.8	8.7	1.1	0.2	43.4	38.2
Botswana	2003	424	48.8	28.0	10.8	48.8	12.4	0.0	0.0	47.6	50.0
	2007	602	53.5	21.8	10.9	53.5	11.5	1.2	1.1	55.6	51.2
Bulgaria	2003	315	21.5	59.4	10.2	21.5	8.9	0.0	0.0	18.6	25.2
	2007	433	26.7	47.1	8.8	26.7	11.8	5.1	0.5	25.3	28.0
Chinese Taipei	2003	445	38.7	47.2	3.0	38.7	11.0	0.0	0.0	39.5	37.9
	2007	574	33.0	50.4	5.2	33.0	10.9	0.3	0.2	29.4	36.4
Cyprus	2003	327	27.7	38.0	18.3	27.7	16.0	0.0	0.0	26.3	29.0
	2007	621	44.2	28.4	18.2	44.2	8.4	0.7	0.2	38.5	50.3
Egypt	2003	583	48.2	30.8	14.3	48.2	6.8	0.0	0.0	49.9	46.9
	2007	944	49.2	27.3	14.2	49.2	8.3	0.9	0.1	47.7	50.6
England	2003	226	59.6	24.2	11.1	59.6	5.1	0.0	0.0	48.4	69.9
	2007	585	60.7	25.6	8.7	60.7	4.7	0.3	0.1	55.3	66.6
Ghana	2003	415	33.3	33.0	23.5	33.3	10.3	0.0	0.0	26.0	38.9
	2007	762	37.7	33.5	16.7	37.7	10.1	1.1	0.9	32.5	42.0
Hong Kong SAR	2003	417	80.8	12.0	3.1	80.8	4.0	0.0	0.0	84.1	77.8
	2007	494	74.2	17.1	5.1	74.2	3.0	0.6	0.0	75.7	72.7
Hungary	2003	274	28.8	59.0	9.5	28.8	2.7	0.0	0.0	22.8	35.7
	2007	593	30.1	55.5	9.3	30.1	3.9	1.2	0.0	25.5	34.1
Indonesia	2003	472	52.8	15.0	26.5	52.8	5.6	0.0	0.0	43.8	62.4
	2007	596	40.1	22.5	24.7	40.1	11.1	0.7	0.9	37.9	42.9
Iran, Islamic Rep. of	2003	412	43.5	39.9	4.2	43.5	12.4	0.0	0.0	39.8	45.9
	2007	580	39.0	42.0	5.6	39.0	12.6	0.6	0.2	39.3	38.8
Israel	2003	347	38.5	42.7	11.1	38.5	7.7	0.0	0.0	38.2	38.9
	2007	461	29.4	46.1	12.4	29.4	7.6	3.0	1.5	28.8	30.2
Italy	2003	346	38.7	49.2	5.8	38.7	6.3	0.0	0.0	31.0	46.1
	2007	625	33.8	49.6	7.7	33.8	7.4	1.4	0.1	28.2	39.0
Japan	2003	407	57.1	31.5	6.4	57.1	5.0	0.0	0.0	57.6	56.6
	2007	613	55.1	31.4	5.5	55.1	7.8	0.2	0.0	58.3	51.9
Jordan	2003	354	47.5	30.4	12.7	47.5	9.4	0.0	0.0	46.1	49.0
	2007	769	40.5	39.8	11.2	40.5	6.9	1.6	0.0	43.2	38.0
Korea, Rep. of	2003	443	34.3	53.8	6.8	34.3	5.1	0.0	0.0	32.1	36.5
	2007	603	43.2	44.9	5.9	43.2	6.0	0.0	0.0	48.1	38.6
Lebanon	2003	322	36.1	45.0	8.4	36.1	10.4	0.0	0.0	32.9	40.5
	2007	531	35.1	46.9	6.5	35.1	10.3	0.7	0.5	33.9	36.7

DIFF = Percent correct
 Because of missing gender information, some totals may appear inconsistent.

Science: Physics / Knowing (S032024 - S11_07)
 Label: Energy conversion in a flashlight
 Type: MC Key: C

COUNTRY	Year	N	DIFF	A	B	C	D	OMIT TED	NOT REACH ED	1.GIRL %Right	2.BOY %Right
Lithuania	2003	365	31.2	38.5	17.8	31.2	12.5	0.0	0.0	29.7	32.9
	2007	573	18.8	42.0	19.2	18.8	17.1	2.7	0.2	17.2	20.3
Malaysia	2003	447	63.5	10.2	20.0	63.5	6.3	0.0	0.0	57.1	70.4
	2007	638	50.0	20.1	18.7	50.0	9.8	0.8	0.6	46.3	54.2
Norway	2003	332	33.1	44.0	7.1	33.1	15.9	0.0	0.0	33.0	33.1
	2007	661	33.9	46.5	5.3	33.9	12.9	1.3	0.1	36.9	31.0
Palestinian Nat'l Auth.	2003	432	29.5	48.5	10.4	29.5	11.6	0.0	0.0	26.2	33.6
	2007	631	26.8	43.0	11.1	26.8	17.1	2.1	0.0	24.6	29.0
Romania	2003	331	22.2	67.7	7.5	22.2	2.6	0.0	0.0	18.7	26.1
	2007	602	19.9	65.5	7.7	19.9	6.1	0.8	0.0	18.8	21.1
Russian Federation	2003	375	30.8	57.7	8.0	30.8	3.4	0.0	0.0	25.7	35.1
	2007	626	27.9	58.6	8.5	27.9	2.6	1.8	0.6	26.7	29.2
Scotland	2003	295	54.2	28.3	12.6	54.2	4.8	0.0	0.0	52.4	56.1
	2007	569	47.2	35.1	6.1	47.2	10.4	0.9	0.2	46.0	48.4
Serbia	2003	343	25.2	55.2	10.1	25.2	9.4	0.0	0.0	20.8	29.2
	2007	575	25.7	54.4	9.8	25.7	7.0	2.1	1.0	24.2	27.2
Singapore	2003	497	65.3	23.8	4.6	65.3	6.4	0.0	0.0	65.6	65.0
	2007	654	72.1	14.8	7.3	72.1	5.3	0.5	0.0	70.2	73.9
Slovenia	2003	297	22.6	48.8	17.1	22.6	11.6	0.0	0.0	23.7	21.5
	2007	576	25.8	51.3	11.6	25.8	10.7	0.6	0.0	23.0	28.6
Sweden	2003	339	26.5	46.4	9.4	26.5	17.7	0.0	0.0	29.4	23.8
	2007	713	27.1	45.9	9.2	27.1	15.3	2.1	0.5	32.3	22.6
Tunisia	2003	387	32.4	40.0	9.4	32.4	18.3	0.0	0.0	27.9	37.3
	2007	585	33.7	43.4	5.9	33.7	12.9	3.4	0.6	32.6	35.2
United States	2003	731	36.5	42.6	11.4	36.5	9.4	0.0	0.0	29.4	44.0
	2007	1054	33.3	47.3	9.8	33.3	9.2	0.1	0.3	29.5	37.0
International Avg.	2003	386	40.3	39.5	10.9	40.3	9.3	0.0	0.0	37.8	42.8
	2007	627	38.6	39.8	10.2	38.6	9.4	1.7	0.4	37.4	39.8
Basque Country, Spain	2003	206	33.1	48.3	9.2	33.1	9.4	0.0	0.0	28.1	37.8
	2007	332	36.7	42.5	8.7	36.7	11.0	1.1	0.1	30.7	42.3
Ontario, Canada	2003	356	37.0	43.6	10.9	37.0	8.5	0.0	0.0	28.3	46.3
	2007	485	30.1	45.1	11.5	30.1	12.0	0.4	0.8	28.7	31.5
Quebec, Canada	2003	370	28.2	48.0	14.2	28.2	9.6	0.0	0.0	24.8	32.2
	2007	549	26.8	52.1	6.3	26.8	12.8	1.4	0.6	22.9	30.4

DIFF = Percent correct
 Because of missing gender information, some totals may appear inconsistent.

Science: Physics / Reasoning (S032272 - S11_08)
 Label: Water level in heated container
 Type: CR Key: -

COUNTRY	Year	N	10	19	70	71	72	79	OMIT TED	NOT REACH ED	V1	1.GIRL %Right	2.BOY %Right
Armenia	2003	261	28.4	1.5	45.7	13.9	3.2	7.3	0.0	0.0	29.9	30.1	29.7
	2007	662	21.5	3.3	20.9	6.0	1.3	16.4	30.1	0.6	24.7	22.1	27.7
Australia	2003	339	14.2	0.0	32.0	33.7	16.5	3.6	0.0	0.0	14.2	12.1	16.2
	2007	583	13.2	1.3	26.1	30.6	15.0	4.6	8.4	0.7	14.6	9.5	19.0
Bahrain	2003	286	9.4	3.4	29.1	21.3	17.3	19.6	0.0	0.0	12.8	14.3	11.0
	2007	596	8.5	0.4	27.4	23.6	15.5	9.4	15.0	0.2	8.9	11.3	6.6
Botswana	2003	343	3.4	0.3	31.0	27.4	17.2	20.7	0.0	0.0	3.7	3.6	3.9
	2007	602	2.1	0.1	20.0	22.5	14.3	27.5	12.2	1.2	2.2	1.9	2.5
Bulgaria	2003	232	36.8	0.1	16.5	18.0	18.0	10.5	0.0	0.0	37.0	37.9	35.7
	2007	433	17.2	0.0	22.1	13.2	8.7	6.7	31.6	0.5	17.2	10.9	23.1
Chinese Taipei	2003	416	20.8	2.3	34.8	25.4	15.0	1.6	0.0	0.0	23.1	18.4	28.1
	2007	574	24.2	0.0	24.2	21.6	22.8	2.1	4.9	0.2	24.2	19.7	28.5
Cyprus	2003	268	5.9	0.9	43.3	29.8	14.0	6.2	0.0	0.0	6.8	3.7	10.2
	2007	621	6.2	1.7	36.1	25.9	14.4	2.9	12.7	0.2	7.8	8.1	7.6
Egypt	2003	549	6.0	0.6	26.5	35.6	21.8	9.5	0.0	0.0	6.7	8.8	5.0
	2007	944	5.1	0.0	29.2	24.8	14.5	14.1	12.1	0.1	5.1	3.9	6.2
England	2003	209	14.7	0.8	40.8	28.7	14.2	0.9	0.0	0.0	15.5	10.1	21.0
	2007	585	13.2	0.0	30.9	30.5	14.2	3.9	7.3	0.1	13.2	11.0	15.6
Ghana	2003	201	1.2	0.5	16.1	24.3	12.1	45.8	0.0	0.0	1.7	2.7	1.0
	2007	762	1.6	0.0	9.7	12.7	7.2	24.2	43.8	0.9	1.6	0.8	2.2
Hong Kong SAR	2003	380	29.6	0.8	31.1	25.0	9.3	4.2	0.0	0.0	30.4	29.0	31.7
	2007	494	22.7	0.0	27.3	23.2	11.0	5.1	10.7	0.0	22.7	23.0	22.5
Hungary	2003	259	20.1	0.0	33.4	26.6	19.1	0.7	0.0	0.0	20.1	10.4	30.4
	2007	593	17.4	0.0	30.8	25.0	16.3	3.0	7.4	0.0	17.4	10.5	23.4
Indonesia	2003	360	13.4	2.4	28.0	22.6	9.3	24.2	0.0	0.0	15.8	10.9	20.7
	2007	596	12.3	0.5	20.1	20.0	7.3	24.7	14.2	0.9	12.8	11.6	14.4
Iran, Islamic Rep. of	2003	356	9.3	2.2	30.9	27.8	25.7	4.1	0.0	0.0	11.5	11.0	11.8
	2007	580	10.8	0.5	27.1	18.5	24.6	6.1	12.2	0.2	11.3	11.2	11.3
Israel	2003	288	21.9	2.4	31.6	28.6	12.3	3.1	0.0	0.0	24.4	22.2	27.0
	2007	461	12.4	0.2	22.7	20.9	17.4	5.4	19.5	1.5	12.6	11.6	13.8
Italy	2003	274	14.7	0.2	30.4	26.8	21.9	6.1	0.0	0.0	14.9	16.1	13.8
	2007	624	18.2	5.6	11.4	23.3	18.6	6.1	16.6	0.3	23.8	22.5	24.9
Japan	2003	396	26.9	0.0	35.0	24.6	12.8	0.8	0.0	0.0	26.9	22.9	30.7
	2007	613	24.5	0.0	34.0	26.3	11.5	2.7	1.0	0.0	24.5	18.8	30.2
Jordan	2003	303	19.2	2.1	24.1	32.7	15.6	6.2	0.0	0.0	21.4	24.0	18.3
	2007	769	11.3	0.8	26.2	26.3	18.6	9.4	7.4	0.0	12.1	11.4	12.8
Korea, Rep. of	2003	430	22.5	8.3	27.9	30.3	9.4	1.6	0.0	0.0	30.8	21.0	40.6
	2007	603	26.1	0.0	27.9	27.3	14.0	1.2	3.6	0.0	26.1	20.6	31.2
Lebanon	2003	231	8.6	3.8	43.3	21.7	20.1	2.4	0.0	0.0	12.4	14.2	9.9
	2007	537	5.4	1.0	15.8	22.9	15.6	10.5	28.2	0.6	6.4	6.2	6.6

V1 = Percent scoring 1 or better V2 = Percent scoring 2 or better
 Percent right for boys and girls corresponds to the percent obtaining the maximum score on the item.
 Because of missing gender information, some totals may appear inconsistent.

Science: Physics / Reasoning (S032272 - S11_08)
 Label: Water level in heated container
 Type: CR Key: -

COUNTRY	Year	N	10	19	70	71	72	79	OMIT TED	NOT REACH ED	V1	1.GIRL %Right	2.BOY %Right
Lithuania	2003	327	24.4	0.0	16.4	24.9	30.5	3.9	0.0	0.0	24.4	21.5	27.2
	2007	573	21.7	0.3	21.1	18.5	25.0	3.4	9.9	0.2	22.0	16.0	27.6
Malaysia	2003	380	19.7	0.3	39.6	27.6	7.4	5.4	0.0	0.0	20.0	17.7	22.4
	2007	638	18.3	1.4	29.4	25.9	6.4	9.8	8.1	0.6	19.7	18.6	21.0
Norway	2003	298	18.9	0.0	35.3	30.9	10.7	4.2	0.0	0.0	18.9	15.6	22.0
	2007	661	14.1	0.0	32.2	27.6	13.5	4.6	7.8	0.1	14.1	11.2	17.0
Palestinian Nat'l Auth.	2003	376	9.7	0.3	29.9	28.8	21.3	10.1	0.0	0.0	10.0	8.9	11.7
	2007	632	5.7	1.6	28.6	25.6	20.0	7.5	10.9	0.0	7.4	8.4	6.4
Romania	2003	262	14.5	0.0	26.7	28.3	28.7	1.7	0.0	0.0	14.5	10.6	18.7
	2007	602	10.4	0.4	16.5	16.1	14.9	17.5	24.3	0.0	10.8	8.6	13.2
Russian Federation	2003	322	29.9	1.3	28.9	23.3	14.0	2.4	0.0	0.0	31.3	25.3	36.1
	2007	626	18.9	3.4	27.2	18.0	17.2	1.7	12.8	0.9	22.3	19.8	25.1
Scotland	2003	247	19.7	0.0	31.6	31.5	11.7	5.5	0.0	0.0	19.7	12.0	27.6
	2007	569	11.2	0.0	34.7	23.3	15.8	3.3	11.5	0.2	11.2	7.5	14.6
Serbia	2003	275	6.2	0.2	34.2	34.2	21.3	3.8	0.0	0.0	6.4	3.8	9.1
	2007	577	6.3	1.6	18.7	25.4	19.5	3.3	24.3	1.0	7.9	7.4	8.4
Singapore	2003	464	40.5	0.0	25.9	14.0	16.2	3.3	0.0	0.0	40.5	38.9	42.0
	2007	654	34.0	0.2	27.1	14.2	11.3	8.6	4.6	0.0	34.2	33.5	34.9
Slovenia	2003	277	10.9	0.0	30.2	24.9	27.8	6.2	0.0	0.0	10.9	7.3	14.4
	2007	576	16.5	0.4	22.3	27.0	29.8	2.0	2.1	0.0	16.9	12.5	21.3
Sweden	2003	315	26.5	0.0	30.1	24.0	15.9	3.5	0.0	0.0	26.5	26.2	26.8
	2007	713	14.9	1.2	28.9	22.7	20.3	3.4	8.1	0.5	16.0	14.6	17.3
Tunisia	2003	365	1.0	0.3	27.1	54.2	9.7	7.7	0.0	0.0	1.3	1.0	1.6
	2007	585	10.3	0.7	26.4	32.9	10.2	7.1	11.6	0.7	11.1	8.3	14.5
United States	2003	689	17.3	0.2	35.6	27.3	12.2	7.5	0.0	0.0	17.5	13.6	21.7
	2007	1054	10.4	0.1	39.5	27.1	16.2	2.0	4.2	0.3	10.6	6.4	14.7
International Avg.	2003	333	17.2	1.1	31.0	27.2	16.1	7.4	0.0	0.0	18.2	15.9	20.5
	2007	627	14.1	0.8	25.5	22.7	15.2	7.9	13.3	0.4	15.0	12.7	17.2
Basque Country, Spain	2003	194	9.0	0.6	40.6	24.2	24.0	1.6	0.0	0.0	9.6	7.9	11.1
	2007	332	9.9	0.6	36.6	27.4	18.6	2.2	4.5	0.1	10.5	7.9	13.1
Ontario, Canada	2003	327	20.7	0.0	28.3	29.0	16.7	5.3	0.0	0.0	20.7	24.7	16.7
	2007	485	22.8	0.0	24.9	24.9	14.6	2.7	9.3	0.8	22.8	21.8	23.8
Quebec, Canada	2003	346	23.3	2.4	26.2	31.3	10.9	6.0	0.0	0.0	25.7	21.2	30.8
	2007	549	14.5	0.0	28.6	26.4	14.1	6.6	9.1	0.6	14.5	14.5	14.5

V1 = Percent scoring 1 or better V2 = Percent scoring 2 or better
 Percent right for boys and girls corresponds to the percent obtaining the maximum score on the item.
 Because of missing gender information, some totals may appear inconsistent.

Science: Physics / Applying (S032141 - S11_09)
 Label: Gravity acting on parachute jumper
 Type: MC Key: D

COUNTRY	Year	N	DIFF	A	B	C	D	OMIT TED	NOT REACH ED	1.GIRL %Right	2.BOY %Right
Armenia	2003	407	30.5	18.9	42.5	8.0	30.5	0.0	0.0	30.3	30.8
	2007	664	39.9	15.4	28.9	8.2	39.9	6.9	0.7	37.8	42.2
Australia	2003	372	33.5	13.7	44.1	8.8	33.5	0.0	0.0	31.6	35.2
	2007	583	26.8	12.8	50.1	7.9	26.8	1.3	1.0	26.1	27.5
Bahrain	2003	348	29.0	13.4	46.9	10.8	29.0	0.0	0.0	32.6	25.3
	2007	596	33.7	11.7	44.2	9.1	33.7	0.8	0.5	36.2	31.3
Botswana	2003	.	.	.	.	.	.	.	.	.	.
	2007	.	.	.	.	.	.	.	.	.	.
Bulgaria	2003	320	23.4	24.8	41.7	10.1	23.4	0.0	0.0	21.4	26.0
	2007	433	25.8	18.2	43.6	9.8	25.8	2.0	0.7	24.8	26.6
Chinese Taipei	2003	447	39.2	11.4	44.4	5.1	39.2	0.0	0.0	33.0	45.5
	2007	574	43.7	8.8	42.4	4.7	43.7	0.2	0.2	38.6	48.5
Cyprus	2003	333	13.9	25.1	48.5	12.5	13.9	0.0	0.0	8.9	18.7
	2007	621	12.2	20.4	56.9	9.7	12.2	0.7	0.2	11.3	13.2
Egypt	2003	590	34.2	13.0	38.4	14.4	34.2	0.0	0.0	38.8	30.4
	2007	941	27.3	16.1	39.9	15.1	27.3	1.2	0.4	33.0	21.7
England	2003	229	48.6	7.7	37.0	6.7	48.6	0.0	0.0	48.0	49.1
	2007	585	39.0	9.3	42.9	8.4	39.0	0.4	0.1	35.7	42.7
Ghana	2003	416	24.7	22.1	33.3	19.9	24.7	0.0	0.0	24.6	24.8
	2007	.	.	.	.	.	.	.	.	.	.
Hong Kong SAR	2003	415	35.8	15.4	40.9	7.9	35.8	0.0	0.0	32.8	38.6
	2007	494	34.1	11.0	43.4	11.5	34.1	0.0	0.0	28.6	39.4
Hungary	2003	279	62.4	4.8	26.2	6.6	62.4	0.0	0.0	54.9	71.1
	2007	593	46.3	9.3	38.2	6.3	46.3	0.0	0.0	37.5	54.0
Indonesia	2003	.	.	.	.	.	.	.	.	.	.
	2007	.	.	.	.	.	.	.	.	.	.
Iran, Islamic Rep. of	2003	413	19.6	19.8	51.7	9.0	19.6	0.0	0.0	22.3	17.8
	2007	579	19.2	13.4	55.8	9.6	19.2	1.4	0.5	18.6	19.8
Israel	2003	356	37.8	9.7	47.9	4.6	37.8	0.0	0.0	31.0	46.5
	2007	461	37.1	11.2	41.7	7.4	37.1	1.1	1.5	34.4	40.3
Italy	2003	354	26.2	17.1	52.3	4.4	26.2	0.0	0.0	25.4	27.0
	2007	624	27.2	18.3	46.2	7.6	27.2	0.1	0.5	23.5	30.6
Japan	2003	407	39.2	14.1	37.2	9.6	39.2	0.0	0.0	32.4	45.6
	2007	613	48.1	12.9	31.4	7.2	48.1	0.4	0.0	41.4	54.8
Jordan	2003	358	52.0	12.8	28.2	7.0	52.0	0.0	0.0	63.7	38.9
	2007	768	38.8	15.5	33.0	10.8	38.8	1.8	0.0	38.2	39.4
Korea, Rep. of	2003	441	54.5	1.9	39.2	4.5	54.5	0.0	0.0	48.0	60.9
	2007	603	57.7	4.9	33.8	3.6	57.7	0.0	0.0	56.1	59.2
Lebanon	2003	308	21.3	15.9	45.9	16.9	21.3	0.0	0.0	16.9	26.7
	2007	525	27.4	13.3	37.1	17.4	27.4	3.3	1.4	25.6	29.8

DIFF = Percent correct
 Because of missing gender information, some totals may appear inconsistent.

Science: Physics / Applying (S032141 - S11_09)
 Label: Gravity acting on parachute jumper
 Type: MC Key: D

COUNTRY	Year	N	DIFF	A	B	C	D	OMIT TED	NOT REACH ED	1.GIRL %Right	2.BOY %Right
Lithuania	2003	373	45.7	6.7	38.9	8.6	45.7	0.0	0.0	43.7	47.8
	2007	573	50.4	7.6	34.5	7.3	50.4	0.0	0.2	45.6	54.9
Malaysia	2003	451	36.9	5.1	50.5	7.5	36.9	0.0	0.0	31.2	42.9
	2007	637	22.4	9.1	59.3	7.7	22.4	0.8	0.8	22.5	22.4
Norway	2003	335	32.4	17.5	43.8	6.2	32.4	0.0	0.0	25.2	38.9
	2007	661	30.0	11.9	47.8	8.7	30.0	1.4	0.3	23.1	36.5
Palestinian Nat'l Auth.	2003	438	43.9	14.9	30.0	11.2	43.9	0.0	0.0	48.7	38.0
	2007	633	33.4	19.2	34.2	11.8	33.4	1.3	0.0	43.4	23.4
Romania	2003	329	28.3	20.1	38.7	12.9	28.3	0.0	0.0	26.9	29.8
	2007	602	23.0	18.8	47.2	10.9	23.0	0.1	0.0	22.0	24.2
Russian Federation	2003	373	38.0	16.3	37.3	8.4	38.0	0.0	0.0	36.4	39.3
	2007	626	35.3	17.2	39.6	5.4	35.3	1.0	1.6	29.3	42.1
Scotland	2003	296	28.7	14.1	47.5	9.7	28.7	0.0	0.0	24.5	33.1
	2007	569	30.3	9.8	51.5	6.8	30.3	1.1	0.4	25.9	34.3
Serbia	2003	350	29.0	14.6	46.3	10.1	29.0	0.0	0.0	25.4	32.2
	2007	573	32.5	14.6	45.2	6.2	32.5	0.6	1.0	26.2	39.1
Singapore	2003	497	44.9	5.9	44.7	4.6	44.9	0.0	0.0	43.2	46.3
	2007	654	41.5	6.1	46.1	6.3	41.5	0.0	0.0	38.1	44.9
Slovenia	2003	295	33.1	13.2	42.8	10.9	33.1	0.0	0.0	26.7	39.3
	2007	576	39.9	10.5	40.3	9.1	39.9	0.2	0.0	35.3	44.4
Sweden	2003	341	52.6	8.4	29.7	9.3	52.6	0.0	0.0	48.4	56.2
	2007	713	50.8	7.2	33.7	7.4	50.8	0.3	0.6	47.2	53.8
Tunisia	2003	406	13.8	21.8	51.8	12.5	13.8	0.0	0.0	15.0	12.5
	2007	585	11.9	18.5	56.2	10.1	11.9	2.4	0.9	12.6	11.1
United States	2003	741	40.5	8.5	43.4	7.6	40.5	0.0	0.0	35.0	46.3
	2007	1054	36.9	9.2	46.3	6.7	36.9	0.5	0.4	29.3	44.4
International Avg.	2003	388	35.3	13.8	41.7	9.2	35.3	0.0	0.0	33.1	37.5
	2007	624	34.1	12.7	43.0	8.6	34.1	1.0	0.5	31.6	36.6
Basque Country, Spain	2003	209	25.5	17.8	50.3	6.3	25.5	0.0	0.0	23.3	27.7
	2007	332	28.5	14.5	48.1	7.4	28.5	1.3	0.1	17.0	39.6
Ontario, Canada	2003	356	45.3	8.9	39.3	6.6	45.3	0.0	0.0	42.5	48.3
	2007	485	40.7	10.0	40.5	7.5	40.7	0.4	0.9	38.8	42.7
Quebec, Canada	2003	371	30.8	17.1	43.6	8.5	30.8	0.0	0.0	23.9	39.1
	2007	549	26.3	16.5	46.6	7.4	26.3	2.3	0.9	22.0	30.4

DIFF = Percent correct
 Because of missing gender information, some totals may appear inconsistent.

Science: Earth Science / Applying (S032060 - S11_10)
 Label: Order of steps in the water cycle
 Type: CR Key: -

COUNTRY	Year	N	10	79	OMIT TED	NOT REACH ED	V1	1.GIRL %Right	2.BOY %Right
Armenia	2003	312	69.5	30.5	0.0	0.0	69.5	65.7	74.8
	2007	663	57.0	26.9	15.4	0.8	57.0	58.5	55.2
Australia	2003	361	71.8	28.2	0.0	0.0	71.8	70.5	73.0
	2007	583	71.3	24.9	2.8	1.0	71.3	68.7	73.5
Bahrain	2003	344	47.4	52.6	0.0	0.0	47.4	46.5	48.5
	2007	596	55.5	41.5	2.4	0.5	55.5	60.3	50.7
Botswana	2003	408	40.9	59.1	0.0	0.0	40.9	38.7	43.3
	2007	604	39.4	52.9	3.9	3.8	39.4	39.8	38.9
Bulgaria	2003	292	74.8	25.2	0.0	0.0	74.8	76.8	72.3
	2007	433	60.3	25.5	13.5	0.7	60.3	67.8	53.3
Chinese Taipei	2003	445	83.0	17.0	0.0	0.0	83.0	82.3	83.8
	2007	574	80.4	17.4	2.0	0.2	80.4	81.8	79.1
Cyprus	2003	316	65.2	34.8	0.0	0.0	65.2	67.6	62.8
	2007	621	53.4	44.1	2.4	0.2	53.4	58.2	48.2
Egypt	2003	568	37.1	62.9	0.0	0.0	37.1	33.8	39.7
	2007	192	17.7	50.0	29.1	3.2	17.7	15.0	21.3
England	2003	226	73.9	26.1	0.0	0.0	73.9	75.7	72.3
	2007	585	72.8	25.7	1.4	0.1	72.8	67.6	78.6
Ghana	2003	287	17.7	82.3	0.0	0.0	17.7	16.1	19.0
	2007	762	12.2	56.5	29.0	2.3	12.2	10.5	13.5
Hong Kong SAR	2003	417	87.7	12.3	0.0	0.0	87.7	87.1	88.1
	2007	494	83.4	15.8	0.8	0.0	83.4	81.4	85.2
Hungary	2003	279	81.1	18.9	0.0	0.0	81.1	78.0	84.7
	2007	593	77.8	21.5	0.6	0.0	77.8	77.6	78.1
Indonesia	2003	440	57.2	42.8	0.0	0.0	57.2	54.7	60.0
	2007	596	44.6	49.5	4.3	1.5	44.6	42.0	47.8
Iran, Islamic Rep. of	2003	368	57.6	42.4	0.0	0.0	57.6	59.5	56.3
	2007	579	47.8	41.1	9.3	1.8	47.8	51.2	45.0
Israel	2003	351	77.8	22.2	0.0	0.0	77.8	78.2	77.2
	2007	461	70.1	21.9	5.9	2.0	70.1	69.3	71.4
Italy	2003	342	75.0	25.0	0.0	0.0	75.0	77.7	72.3
	2007	623	68.9	26.0	4.5	0.5	68.9	66.1	71.5
Japan	2003	396	64.9	35.1	0.0	0.0	64.9	62.1	67.6
	2007	613	65.0	32.7	2.1	0.2	65.0	63.3	66.7
Jordan	2003	338	64.6	35.4	0.0	0.0	64.6	69.0	59.3
	2007	768	62.1	34.8	2.9	0.2	62.1	62.4	61.8
Korea, Rep. of	2003	443	78.0	22.0	0.0	0.0	78.0	74.7	81.3
	2007	603	79.7	19.9	0.4	0.0	79.7	77.4	81.8
Lebanon	2003	288	67.8	32.2	0.0	0.0	67.8	59.7	79.0
	2007	537	53.0	41.2	4.3	1.5	53.0	46.1	61.6

V1 = Percent scoring 1 or better V2 = Percent scoring 2 or better
 Percent right for boys and girls corresponds to the percent obtaining the maximum score on the item.
 Because of missing gender information, some totals may appear inconsistent.

Science: Earth Science / Applying (S032060 - S11_10)
 Label: Order of steps in the water cycle
 Type: CR Key: -

COUNTRY	Year	N	10	79	OMIT TED	NOT REACH ED	V1	1.GIRL %Right	2.BOY %Right
Lithuania	2003	361	84.3	15.7	0.0	0.0	84.3	87.7	80.7
	2007	573	75.9	20.3	3.6	0.2	75.9	79.6	72.5
Malaysia	2003	453	81.8	18.2	0.0	0.0	81.8	81.1	82.5
	2007	638	64.8	31.1	3.1	1.0	64.8	66.5	62.9
Norway	2003	321	74.8	25.2	0.0	0.0	74.8	77.7	72.1
	2007	.	.	.	.	.	.	.	.
Palestinian Nat'l Auth.	2003	405	47.9	52.1	0.0	0.0	47.9	48.5	47.2
	2007	633	38.5	57.3	4.2	0.0	38.5	38.5	38.4
Romania	2003	301	65.3	34.7	0.0	0.0	65.3	63.7	67.2
	2007	602	56.8	35.6	7.6	0.0	56.8	62.8	50.1
Russian Federation	2003	353	78.9	21.1	0.0	0.0	78.9	79.6	78.4
	2007	626	72.0	20.2	6.1	1.7	72.0	76.4	67.0
Scotland	2003	274	74.1	25.9	0.0	0.0	74.1	71.0	77.3
	2007	569	69.9	26.9	2.6	0.6	69.9	70.3	69.6
Serbia	2003	335	39.3	60.7	0.0	0.0	39.3	35.0	43.2
	2007	577	42.8	50.7	5.3	1.2	42.8	44.3	41.3
Singapore	2003	496	85.8	14.2	0.0	0.0	85.8	87.8	84.0
	2007	654	77.2	21.8	0.9	0.0	77.2	78.7	75.7
Slovenia	2003	292	69.2	30.8	0.0	0.0	69.2	67.0	71.5
	2007	576	71.5	28.0	0.5	0.0	71.5	70.0	73.0
Sweden	2003	336	84.1	15.9	0.0	0.0	84.1	84.4	83.8
	2007	.	.	.	.	.	.	.	.
Tunisia	2003	400	63.9	36.1	0.0	0.0	63.9	56.4	72.3
	2007	585	64.0	31.7	3.2	1.1	64.0	57.2	72.4
United States	2003	730	73.1	26.9	0.0	0.0	73.1	68.8	77.6
	2007	1054	71.0	27.5	1.0	0.5	71.0	70.5	71.5
International Avg.	2003	372	67.1	32.9	0.0	0.0	67.1	66.1	68.3
	2007	599	60.5	32.9	5.7	0.9	60.5	60.6	60.6
Basque Country, Spain	2003	207	75.5	24.5	0.0	0.0	75.5	73.2	77.6
	2007	332	76.9	21.3	1.6	0.1	76.9	80.3	73.6
Ontario, Canada	2003	352	80.2	19.8	0.0	0.0	80.2	81.8	78.5
	2007	485	73.8	22.0	3.3	0.9	73.8	73.8	73.9
Quebec, Canada	2003	366	84.9	15.1	0.0	0.0	84.9	87.0	82.5
	2007	549	75.0	22.6	1.2	1.1	75.0	76.6	73.5

V1 = Percent scoring 1 or better V2 = Percent scoring 2 or better
 Percent right for boys and girls corresponds to the percent obtaining the maximum score on the item.
 Because of missing gender information, some totals may appear inconsistent.

Science: Earth Science / Knowing (S032463 - S11_11)
 Label: Soil change due to natural causes
 Type: MC Key: D

COUNTRY	Year	N	DIFF	A	B	C	D	OMIT TED	NOT REACH ED	1.GIRL %Right	2.BOY %Right
Armenia	2003	318	56.3	19.7	13.9	10.0	56.3	0.0	0.0	61.5	49.7
	2007	662	49.3	11.9	14.0	6.5	49.3	17.3	1.1	46.9	52.0
Australia	2003	359	70.3	11.7	7.0	10.9	70.3	0.0	0.0	73.3	67.6
	2007	583	63.3	12.2	8.6	12.5	63.3	2.3	1.1	61.6	64.8
Bahrain	2003	338	47.8	16.6	22.1	13.4	47.8	0.0	0.0	51.9	43.7
	2007	596	46.3	18.6	18.5	13.8	46.3	1.8	0.9	53.7	39.0
Botswana	2003	421	46.4	10.8	19.4	23.4	46.4	0.0	0.0	50.8	41.9
	2007	604	45.0	9.3	22.6	14.3	45.0	3.9	5.0	46.1	43.8
Bulgaria	2003	298	56.3	19.4	12.5	11.8	56.3	0.0	0.0	60.3	51.3
	2007	433	43.6	25.4	13.1	11.5	43.6	5.6	0.7	45.5	41.9
Chinese Taipei	2003	447	83.0	5.1	9.2	2.8	83.0	0.0	0.0	82.7	83.2
	2007	574	82.1	4.3	10.6	2.7	82.1	0.2	0.2	85.6	78.8
Cyprus	2003	328	48.0	13.5	20.8	17.8	48.0	0.0	0.0	48.0	48.0
	2007	621	42.9	11.5	23.2	20.0	42.9	2.0	0.4	44.2	41.4
Egypt	2003	576	44.5	16.9	18.6	20.0	44.5	0.0	0.0	44.7	44.3
	2007	939	40.9	18.2	21.2	17.6	40.9	1.7	0.4	39.6	42.1
England	2003	217	73.0	5.6	9.0	12.4	73.0	0.0	0.0	76.4	70.0
	2007	585	65.7	13.7	7.1	10.9	65.7	2.2	0.5	69.5	61.4
Ghana	2003	410	39.1	21.6	23.5	15.9	39.1	0.0	0.0	41.0	37.6
	2007	762	39.9	21.6	14.8	17.9	39.9	1.9	3.8	42.2	38.0
Hong Kong SAR	2003	416	76.3	4.9	14.0	4.7	76.3	0.0	0.0	79.9	73.0
	2007	494	71.0	7.0	14.5	5.6	71.0	1.7	0.2	71.8	70.3
Hungary	2003	277	75.1	10.8	11.5	2.5	75.1	0.0	0.0	77.8	72.1
	2007	593	70.2	11.3	12.3	4.6	70.2	1.5	0.1	75.5	65.6
Indonesia	2003	472	53.9	14.6	25.3	6.1	53.9	0.0	0.0	51.4	56.6
	2007	596	45.2	13.9	28.9	8.9	45.2	0.8	2.4	40.2	51.4
Iran, Islamic Rep. of	2003	398	55.5	9.9	21.2	13.4	55.5	0.0	0.0	63.6	50.4
	2007	579	50.1	9.5	22.5	13.9	50.1	2.2	1.8	52.7	47.9
Israel	2003	350	69.4	8.5	11.1	11.0	69.4	0.0	0.0	68.5	70.4
	2007	461	56.2	11.6	12.6	13.8	56.2	3.5	2.2	56.8	55.8
Italy	2003	345	72.6	9.7	11.7	6.1	72.6	0.0	0.0	76.4	68.8
	2007	624	66.4	8.7	14.0	8.0	66.4	2.2	0.8	68.9	64.0
Japan	2003	407	74.8	3.3	16.1	5.8	74.8	0.0	0.0	75.2	74.3
	2007	613	80.9	3.5	11.4	3.6	80.9	0.4	0.2	84.9	76.8
Jordan	2003	351	38.0	18.8	29.5	13.6	38.0	0.0	0.0	42.3	33.3
	2007	768	41.6	23.0	24.5	9.7	41.6	0.8	0.4	41.6	41.5
Korea, Rep. of	2003	444	72.7	7.5	13.1	6.6	72.7	0.0	0.0	74.0	71.5
	2007	603	77.6	10.1	8.7	3.6	77.6	0.0	0.0	75.8	79.2
Lebanon	2003	286	46.2	8.2	30.0	15.6	46.2	0.0	0.0	47.0	45.2
	2007	514	37.5	14.6	21.4	15.9	37.5	9.0	1.7	37.6	37.3

DIFF = Percent correct
 Because of missing gender information, some totals may appear inconsistent.

Science: Earth Science / Knowing (S032463 - S11_11)
 Label: Soil change due to natural causes
 Type: MC Key: D

COUNTRY	Year	N	DIFF	A	B	C	D	OMIT TED	NOT REACH ED	1.GIRL %Right	2.BOY %Right
Lithuania	2003	361	64.2	18.9	6.8	10.1	64.2	0.0	0.0	64.0	64.4
	2007	565	56.6	22.0	10.4	8.1	56.6	2.7	0.3	58.0	55.3
Malaysia	2003	443	64.7	7.3	20.7	7.2	64.7	0.0	0.0	67.9	61.4
	2007	638	50.3	11.2	26.9	9.4	50.3	1.1	1.1	50.6	50.0
Norway	2003	315	33.9	27.1	17.9	21.1	33.9	0.0	0.0	37.1	31.1
	2007	661	36.0	25.5	19.9	14.4	36.0	3.0	1.1	37.2	34.8
Palestinian Nat'l Auth.	2003	436	41.2	22.3	24.1	12.3	41.2	0.0	0.0	42.4	39.7
	2007	633	34.5	25.3	25.9	12.5	34.5	1.5	0.2	37.5	31.5
Romania	2003	323	52.7	14.0	25.4	7.9	52.7	0.0	0.0	52.2	53.2
	2007	602	46.4	9.6	32.0	9.2	46.4	2.4	0.6	51.3	41.0
Russian Federation	2003	367	70.2	11.5	8.9	9.4	70.2	0.0	0.0	76.1	65.1
	2007	626	66.6	9.3	9.3	6.8	66.6	5.5	2.5	73.0	59.4
Scotland	2003	288	62.4	13.6	8.9	15.2	62.4	0.0	0.0	66.0	58.5
	2007	569	55.6	15.8	8.1	15.6	55.6	4.2	0.8	57.0	54.2
Serbia	2003	340	56.8	20.6	14.3	8.3	56.8	0.0	0.0	61.8	52.6
	2007	571	52.9	14.3	14.8	11.3	52.9	5.2	1.5	57.4	48.1
Singapore	2003	494	74.7	8.6	9.5	7.1	74.7	0.0	0.0	79.4	70.7
	2007	654	65.7	9.5	10.7	13.3	65.7	0.9	0.0	69.8	61.6
Slovenia	2003	292	56.6	19.5	18.7	5.3	56.6	0.0	0.0	60.4	52.8
	2007	576	59.7	23.6	11.6	4.1	59.7	1.0	0.0	61.0	58.4
Sweden	2003	335	61.6	14.2	10.4	13.8	61.6	0.0	0.0	60.0	63.1
	2007	711	55.2	20.2	11.4	10.5	55.2	2.1	0.6	58.4	52.4
Tunisia	2003	332	57.2	5.1	24.4	13.4	57.2	0.0	0.0	58.6	55.6
	2007	585	37.7	17.6	28.4	8.6	37.7	6.6	1.1	37.4	38.0
United States	2003	737	63.7	12.7	9.5	14.1	63.7	0.0	0.0	61.1	66.4
	2007	1054	61.5	10.7	12.9	13.2	61.5	1.2	0.5	62.2	60.7
International Avg.	2003	379	59.4	13.1	16.3	11.2	59.4	0.0	0.0	61.6	57.2
	2007	626	54.4	14.4	16.6	10.7	54.4	3.0	1.0	56.1	52.7
Basque Country, Spain	2003	201	69.1	6.4	14.6	9.9	69.1	0.0	0.0	74.3	64.1
	2007	332	64.8	10.5	13.6	7.8	64.8	3.2	0.1	62.8	66.8
Ontario, Canada	2003	350	61.8	13.0	8.7	16.4	61.8	0.0	0.0	64.9	58.5
	2007	485	62.6	15.0	8.1	10.3	62.6	2.8	1.2	61.1	64.2
Quebec, Canada	2003	367	75.1	9.0	8.1	7.8	75.1	0.0	0.0	75.2	75.1
	2007	549	72.7	7.7	7.7	8.2	72.7	2.5	1.2	75.8	69.8

DIFF = Percent correct
 Because of missing gender information, some totals may appear inconsistent.

Science: Earth Science / Applying (S032650A - S11_12A)
 Label: Changes at high elevations
 Type: CR Key: -

COUNTRY	Year	N	10	11	12	19	70	71	79	OMIT TED	NOT REACH ED	V1	1.GIRL %Right	2.BOY %Right
Armenia	2003	113	65.5	19.5	2.7	2.1	6.6	0.6	3.0	0.0	0.0	89.8	88.0	92.2
	2007	665	20.5	5.2	1.0	2.4	4.1	0.8	10.3	54.0	1.8	29.0	30.8	26.9
Australia	2003	315	33.5	43.9	0.3	2.2	1.5	1.2	17.5	0.0	0.0	79.8	80.4	79.3
	2007	583	31.4	41.2	1.1	1.6	0.1	0.2	14.9	8.2	1.3	75.3	76.0	74.6
Bahrain	2003	269	53.5	8.5	7.8	4.0	2.5	0.5	23.1	0.0	0.0	73.8	73.3	74.5
	2007	596	33.3	9.6	2.8	6.9	2.2	0.8	25.6	17.7	1.0	52.6	62.2	43.1
Botswana	2003	297	14.4	3.0	3.4	4.8	1.0	3.7	69.7	0.0	0.0	25.5	27.7	23.4
	2007	604	10.9	1.2	1.6	2.1	0.8	0.0	60.2	16.4	6.7	15.8	18.1	13.3
Bulgaria	2003	211	46.8	17.3	0.4	5.2	4.4	0.7	25.2	0.0	0.0	69.7	73.2	65.5
	2007	433	27.7	25.2	0.6	1.1	0.0	1.0	9.3	34.2	0.8	54.7	57.1	52.5
Chinese Taipei	2003	346	29.1	44.1	3.5	0.5	4.9	7.8	10.1	0.0	0.0	77.2	78.1	76.2
	2007	574	28.1	37.2	4.1	1.0	1.4	3.8	7.9	16.4	0.2	70.4	73.6	67.4
Cyprus	2003	198	40.9	12.6	1.7	2.5	0.9	2.5	38.9	0.0	0.0	57.6	57.2	58.2
	2007	621	30.5	6.1	2.3	2.4	0.0	0.1	28.5	29.8	0.4	41.2	41.6	40.9
Egypt	2003	487	24.2	16.8	0.3	0.8	0.5	0.1	57.3	0.0	0.0	42.1	38.7	45.0
	2007	944	28.7	6.0	1.3	0.8	3.3	0.7	41.0	17.7	0.6	36.8	38.9	34.7
England	2003	191	39.3	48.8	0.4	1.6	0.0	0.0	9.9	0.0	0.0	90.1	87.5	92.6
	2007	585	40.5	35.7	1.6	1.8	0.3	0.7	9.7	9.2	0.5	79.6	78.4	81.0
Ghana	2003	129	7.9	1.0	6.7	8.6	2.1	1.2	72.5	0.0	0.0	24.2	16.7	28.9
	2007	762	2.8	0.1	1.1	0.6	0.4	0.3	34.5	56.4	3.8	4.6	3.8	5.3
Hong Kong SAR	2003	305	25.9	41.9	0.8	0.7	3.8	3.9	23.0	0.0	0.0	69.3	70.8	67.9
	2007	494	18.5	42.4	0.8	1.6	1.1	3.9	11.5	19.7	0.5	63.3	68.8	58.3
Hungary	2003	251	47.7	33.7	2.0	5.7	0.8	3.4	6.6	0.0	0.0	89.2	90.1	88.1
	2007	593	39.1	34.0	2.9	3.1	2.2	1.7	9.6	7.3	0.1	79.1	78.3	79.8
Indonesia	2003	273	31.2	4.6	2.2	4.7	3.4	1.4	52.5	0.0	0.0	42.7	40.9	44.5
	2007	596	18.2	5.0	0.9	1.0	1.7	0.5	42.9	26.8	2.8	25.3	26.4	23.9
Iran, Islamic Rep. of	2003	262	32.4	22.0	0.8	0.0	13.1	0.6	31.0	0.0	0.0	55.3	62.9	50.2
	2007	579	16.3	12.0	1.7	2.5	11.0	1.6	22.1	30.5	2.4	32.5	35.0	30.3
Israel	2003	275	45.4	32.8	2.5	1.8	0.6	2.3	14.6	0.0	0.0	82.6	82.4	82.8
	2007	461	33.6	17.5	2.1	1.7	0.5	0.2	14.8	27.0	2.6	54.9	55.8	54.1
Italy	2003	227	43.0	10.7	12.7	4.9	1.9	2.4	24.4	0.0	0.0	71.2	71.0	71.5
	2007	625	50.0	0.5	0.1	0.0	1.4	0.3	18.4	28.2	1.1	50.6	49.6	51.6
Japan	2003	324	17.4	52.6	4.3	0.4	1.2	1.9	22.2	0.0	0.0	74.7	75.2	74.2
	2007	613	16.5	50.2	3.3	0.0	1.5	1.4	13.4	13.4	0.2	70.0	70.2	69.9
Jordan	2003	295	35.3	26.8	5.9	7.8	1.3	1.6	21.3	0.0	0.0	75.8	77.9	72.8
	2007	769	35.5	12.7	7.4	5.2	1.0	1.7	24.1	12.1	0.4	60.7	65.4	56.5
Korea, Rep. of	2003	362	28.2	46.2	1.4	0.0	8.4	2.2	13.6	0.0	0.0	75.8	71.9	79.6
	2007	603	27.1	41.0	1.5	0.0	1.8	4.2	11.3	13.0	0.0	69.7	66.7	72.4
Lebanon	2003	125	36.1	9.5	7.1	3.2	20.3	0.6	23.3	0.0	0.0	55.9	51.7	59.9
	2007	537	13.1	4.5	2.2	0.5	1.7	0.3	23.6	49.6	4.3	20.4	17.4	24.1

V1 = Percent scoring 1 or better V2 = Percent scoring 2 or better
 Percent right for boys and girls corresponds to the percent obtaining the maximum score on the item.
 Because of missing gender information, some totals may appear inconsistent.

Science: Earth Science / Applying (S032650A - S11_12A)
 Label: Changes at high elevations
 Type: CR Key: -

COUNTRY	Year	N	10	11	12	19	70	71	79	OMIT TED	NOT REACH ED	V1	1.GIRL %Right	2.BOY %Right
Lithuania	2003	289	42.4	30.4	0.8	1.5	1.1	5.6	18.2	0.0	0.0	75.1	77.0	73.1
	2007	573	29.7	30.2	0.4	0.7	0.6	5.6	15.3	16.9	0.4	61.1	60.4	61.7
Malaysia	2003	296	43.5	19.6	1.0	1.3	4.2	1.9	28.4	0.0	0.0	65.5	64.9	66.1
	2007	638	27.6	9.6	0.9	1.1	3.1	1.3	32.7	22.2	1.5	39.2	39.1	39.4
Norway	2003	272	28.3	50.3	1.1	2.0	1.9	0.9	15.4	0.0	0.0	81.7	81.6	81.9
	2007	661	15.6	44.1	0.3	1.8	6.2	0.9	15.4	14.3	1.4	61.7	63.0	60.4
Palestinian Nat'l Auth.	2003	316	16.8	32.5	4.9	6.5	2.1	2.7	34.4	0.0	0.0	60.7	65.3	54.7
	2007	633	15.2	27.6	5.0	3.1	1.2	1.3	30.3	15.8	0.3	51.0	57.4	44.6
Romania	2003	235	54.8	12.6	8.0	3.0	8.3	3.5	9.8	0.0	0.0	78.4	73.1	84.6
	2007	602	38.0	11.8	3.2	1.6	1.5	1.2	20.9	21.4	0.6	54.6	56.8	52.1
Russian Federation	2003	216	50.3	23.8	0.7	1.3	2.7	9.0	12.1	0.0	0.0	76.1	76.3	76.0
	2007	626	27.1	18.2	0.8	0.4	2.4	9.1	12.3	27.1	2.6	46.4	44.9	48.1
Scotland	2003	229	42.3	39.3	3.4	2.4	0.4	0.0	12.1	0.0	0.0	87.5	85.4	89.5
	2007	569	34.5	30.6	2.0	3.5	1.5	1.0	8.8	16.9	1.1	70.6	69.2	71.8
Serbia	2003	221	31.8	22.3	5.7	1.5	3.1	5.5	30.1	0.0	0.0	61.4	61.4	61.4
	2007	577	18.7	19.0	2.5	1.2	2.1	1.9	18.0	35.1	1.5	41.4	43.6	39.1
Singapore	2003	445	41.5	44.6	1.2	0.5	1.1	0.6	10.5	0.0	0.0	87.8	87.3	88.2
	2007	654	37.9	34.8	0.8	1.2	1.5	1.0	12.1	10.6	0.0	74.8	75.9	73.6
Slovenia	2003	214	21.7	33.2	2.7	0.7	4.7	0.9	36.1	0.0	0.0	58.3	58.9	57.8
	2007	576	37.2	31.6	3.0	2.7	2.5	3.3	13.5	6.3	0.0	74.4	78.2	70.7
Sweden	2003	255	25.3	46.4	0.7	0.0	5.5	2.0	20.0	0.0	0.0	72.5	74.9	70.1
	2007	713	22.0	34.8	0.2	0.2	3.7	0.8	14.3	23.1	1.0	57.2	56.6	57.7
Tunisia	2003	291	33.6	6.2	11.3	20.5	2.2	1.8	24.4	0.0	0.0	71.6	75.1	68.2
	2007	585	21.5	9.1	9.8	13.0	0.9	1.4	23.8	18.7	1.7	53.3	48.6	59.1
United States	2003	647	41.9	29.8	3.5	1.7	1.4	2.3	19.4	0.0	0.0	77.0	75.8	78.3
	2007	1054	35.3	31.4	2.0	1.0	1.0	2.2	16.7	9.8	0.5	69.6	69.2	70.1
International Avg.	2003	278	35.5	26.9	3.4	3.2	3.6	2.3	25.2	0.0	0.0	69.0	68.8	69.0
	2007	627	26.7	21.8	2.2	2.1	2.0	1.7	20.2	22.0	1.3	52.8	53.8	51.8
Basque Country, Spain	2003	171	35.2	31.4	5.0	0.8	2.8	2.3	22.6	0.0	0.0	72.4	74.0	71.0
	2007	332	37.2	30.3	3.7	1.2	0.0	0.3	11.8	15.1	0.4	72.3	68.2	76.2
Ontario, Canada	2003	299	35.9	43.2	2.0	2.7	1.5	1.6	13.1	0.0	0.0	83.8	83.2	84.5
	2007	485	39.0	33.2	1.9	0.9	0.6	1.6	8.4	12.8	1.7	74.9	75.3	74.4
Quebec, Canada	2003	320	49.6	31.8	1.6	2.8	1.0	1.5	11.7	0.0	0.0	85.8	89.9	80.9
	2007	549	36.9	30.0	2.2	1.8	0.3	0.4	9.8	17.1	1.5	70.9	72.1	69.8

V1 = Percent scoring 1 or better V2 = Percent scoring 2 or better
 Percent right for boys and girls corresponds to the percent obtaining the maximum score on the item.
 Because of missing gender information, some totals may appear inconsistent.

Science: Earth Science / Applying (S032650B - S11_12B)
 Label: Changes at high elevations
 Type: CR Key: -

COUNTRY	Year	N	10	11	12	19	70	71	79	OMIT TED	NOT REACH ED	V1	1.GIRL %Right	2.BOY %Right
Armenia	2003	99	44.5	29.1	0.9	5.7	7.7	0.6	11.5	0.0	0.0	80.2	84.4	75.8
	2007	665	12.8	5.0	1.6	2.5	3.6	1.4	7.4	64.0	1.8	21.9	24.8	18.5
Australia	2003	292	43.5	23.4	4.7	3.7	2.1	0.4	22.1	0.0	0.0	75.3	70.2	79.9
	2007	583	34.8	19.8	5.1	4.1	0.3	0.2	20.9	13.5	1.3	63.9	60.5	66.9
Bahrain	2003	245	22.9	10.8	18.9	7.6	3.0	0.3	36.5	0.0	0.0	60.2	60.7	59.6
	2007	596	17.2	10.1	8.6	7.2	2.1	2.4	28.1	23.2	1.0	43.1	52.9	33.5
Botswana	2003	260	7.5	2.7	3.5	7.1	0.8	2.2	76.2	0.0	0.0	20.8	19.2	22.7
	2007	604	7.1	1.0	3.0	2.0	0.7	0.0	56.3	23.2	6.7	13.1	14.5	11.5
Bulgaria	2003	169	24.4	32.2	6.1	8.4	2.7	2.9	23.3	0.0	0.0	71.1	76.4	64.4
	2007	433	18.4	17.9	0.5	2.5	0.3	0.6	12.1	47.0	0.8	39.3	40.7	38.0
Chinese Taipei	2003	300	34.4	33.9	7.7	0.9	2.5	6.7	13.9	0.0	0.0	76.9	79.5	74.0
	2007	574	27.5	21.9	5.0	0.5	1.1	3.3	16.0	24.4	0.2	55.0	56.4	53.7
Cyprus	2003	148	27.5	10.4	6.0	3.1	0.6	3.6	48.7	0.0	0.0	47.0	38.9	56.1
	2007	621	12.2	5.6	2.7	3.3	0.0	0.2	30.6	45.0	0.4	23.8	22.9	24.7
Egypt	2003	414	10.4	11.1	1.3	0.3	0.5	0.4	76.0	0.0	0.0	23.1	20.9	24.9
	2007	945	9.5	5.8	4.9	1.8	1.8	1.6	43.6	30.4	0.6	22.0	24.7	19.3
England	2003	184	49.3	19.7	6.9	2.4	0.0	2.4	19.4	0.0	0.0	78.2	72.1	84.4
	2007	585	32.1	18.3	5.6	3.4	1.2	1.0	23.1	14.9	0.5	59.3	55.1	64.0
Ghana	2003	103	4.5	0.0	4.9	13.5	2.2	0.0	75.0	0.0	0.0	22.9	16.9	26.1
	2007	762	1.8	0.3	0.6	1.3	0.5	0.2	27.9	63.7	3.8	3.9	3.8	4.0
Hong Kong SAR	2003	274	33.9	26.9	1.5	2.2	2.2	3.8	29.5	0.0	0.0	64.5	62.6	66.4
	2007	494	30.5	17.1	1.4	3.5	0.9	2.4	16.2	27.5	0.5	52.6	50.6	54.4
Hungary	2003	221	34.0	43.4	6.1	3.0	0.0	2.0	11.4	0.0	0.0	86.6	83.2	90.3
	2007	593	28.7	28.7	5.4	4.8	0.6	2.7	10.9	18.0	0.1	67.7	67.3	68.0
Indonesia	2003	233	20.5	6.4	3.7	5.0	5.2	0.4	58.8	0.0	0.0	35.6	33.3	37.8
	2007	596	10.7	3.5	0.9	2.2	1.7	1.3	43.8	33.2	2.8	17.2	17.4	17.1
Iran, Islamic Rep. of	2003	188	21.7	22.9	2.2	0.0	9.9	0.0	43.4	0.0	0.0	46.7	50.7	44.0
	2007	579	7.7	6.8	2.2	2.0	3.1	0.7	26.9	48.2	2.4	18.7	15.7	21.2
Israel	2003	229	35.6	28.3	3.4	4.6	1.0	1.9	25.2	0.0	0.0	71.9	77.6	65.7
	2007	461	18.7	13.6	5.4	1.8	1.5	1.0	18.8	36.5	2.6	39.5	37.4	42.1
Italy	2003	192	21.6	17.9	15.1	8.0	1.2	0.6	35.6	0.0	0.0	62.5	58.7	66.4
	2007	625	27.1	0.2	0.1	0.1	0.5	0.5	31.1	39.2	1.1	27.7	25.7	29.4
Japan	2003	272	37.3	24.0	6.0	0.5	1.0	1.9	29.2	0.0	0.0	67.8	68.1	67.4
	2007	613	33.3	16.7	5.9	0.2	0.3	0.9	18.7	23.6	0.2	56.2	56.9	55.4
Jordan	2003	268	23.6	13.4	6.0	10.3	2.4	2.1	42.2	0.0	0.0	53.3	52.8	54.0
	2007	769	18.4	12.2	10.7	6.6	0.8	1.4	32.3	17.1	0.4	48.0	52.7	43.7
Korea, Rep. of	2003	329	41.9	31.4	1.9	1.2	3.4	1.9	18.3	0.0	0.0	76.3	69.0	83.0
	2007	603	33.4	19.2	2.1	1.2	1.4	4.6	25.1	13.0	0.0	55.9	55.6	56.3
Lebanon	2003	104	4.5	1.4	2.5	0.0	22.4	0.0	69.2	0.0	0.0	8.4	8.3	8.5
	2007	537	4.8	6.1	1.6	2.1	0.5	0.8	24.3	55.5	4.3	14.6	12.1	17.6

V1 = Percent scoring 1 or better V2 = Percent scoring 2 or better
 Percent right for boys and girls corresponds to the percent obtaining the maximum score on the item.
 Because of missing gender information, some totals may appear inconsistent.

Science: Earth Science / Applying (S032650B - S11_12B)
 Label: Changes at high elevations
 Type: CR Key: -

COUNTRY	Year	N	10	11	12	19	70	71	79	OMIT TED	NOT REACH ED	V1	1.GIRL %Right	2.BOY %Right
Lithuania	2003	247	35.7	30.3	7.3	3.2	0.0	5.6	17.9	0.0	0.0	76.5	69.2	85.4
	2007	573	28.0	23.5	1.5	1.3	1.1	4.4	11.4	28.4	0.4	54.3	56.8	51.9
Malaysia	2003	268	29.5	29.7	1.4	3.1	2.1	2.9	31.3	0.0	0.0	63.7	62.1	65.4
	2007	638	20.7	8.8	0.2	0.3	2.9	0.5	35.5	29.5	1.5	30.1	30.5	29.6
Norway	2003	236	37.8	28.9	2.3	5.6	1.1	1.8	22.5	0.0	0.0	74.6	71.4	77.8
	2007	661	31.9	12.7	1.8	0.9	5.4	1.8	15.6	28.5	1.4	47.3	50.2	44.6
Palestinian Nat'l Auth.	2003	266	19.6	19.9	5.7	5.2	0.0	4.4	45.2	0.0	0.0	50.4	49.3	51.9
	2007	633	13.7	10.9	6.2	3.7	1.0	1.9	40.0	22.3	0.3	34.5	38.5	30.5
Romania	2003	192	16.6	20.5	16.3	4.3	9.9	4.1	28.4	0.0	0.0	57.6	57.8	57.5
	2007	602	14.5	12.4	10.0	2.0	1.1	3.4	22.7	33.3	0.6	38.9	37.5	40.4
Russian Federation	2003	192	28.7	34.5	0.9	6.4	2.4	8.4	18.7	0.0	0.0	70.5	67.2	72.8
	2007	626	23.6	14.5	2.3	1.7	1.6	2.4	11.9	39.3	2.6	42.1	40.9	43.4
Scotland	2003	207	41.5	24.5	8.0	6.9	0.0	3.3	15.9	0.0	0.0	80.9	74.2	87.0
	2007	569	27.9	19.2	6.1	3.2	0.5	0.6	17.9	23.3	1.1	56.5	55.6	57.3
Serbia	2003	187	28.5	29.3	2.4	1.4	2.7	1.6	34.1	0.0	0.0	61.7	56.3	65.8
	2007	577	16.6	11.8	4.8	0.8	2.2	2.5	14.9	45.0	1.5	33.9	34.3	33.4
Singapore	2003	426	42.3	27.6	1.8	1.7	0.5	2.1	24.0	0.0	0.0	73.4	76.4	70.7
	2007	654	33.8	20.7	2.5	2.9	1.5	0.5	25.6	12.6	0.0	59.8	57.8	61.8
Slovenia	2003	171	28.8	21.7	2.4	4.8	3.7	1.2	37.5	0.0	0.0	57.6	54.6	60.6
	2007	576	31.9	20.0	7.3	3.7	1.9	2.2	21.7	11.3	0.0	62.9	64.1	61.8
Sweden	2003	211	46.8	27.8	1.5	0.2	3.3	1.4	19.0	0.0	0.0	76.3	70.3	82.3
	2007	713	26.6	17.1	1.2	1.0	1.4	0.4	17.7	33.4	1.0	46.0	44.1	47.6
Tunisia	2003	249	16.4	11.2	18.1	14.9	2.1	2.4	34.8	0.0	0.0	60.6	62.3	59.0
	2007	585	13.2	7.2	10.1	7.1	0.3	1.7	30.1	28.5	1.7	37.6	34.8	41.0
United States	2003	617	34.4	27.2	2.7	2.9	1.0	2.1	29.7	0.0	0.0	67.3	60.4	74.7
	2007	1054	27.4	23.9	5.2	2.6	1.3	2.2	24.0	13.0	0.5	59.0	57.7	60.2
International Avg.	2003	242	28.8	21.9	5.5	4.5	3.0	2.3	34.1	0.0	0.0	60.6	58.6	62.5
	2007	627	21.1	13.1	4.0	2.6	1.4	1.6	24.3	30.6	1.3	40.8	40.9	40.7
Basque Country, Spain	2003	151	31.7	29.1	8.8	0.6	1.5	1.9	26.5	0.0	0.0	70.1	71.1	69.1
	2007	332	20.6	21.7	7.9	2.5	0.6	1.4	20.1	24.7	0.4	52.8	46.7	58.7
Ontario, Canada	2003	282	41.1	21.9	4.4	4.5	1.0	1.8	25.3	0.0	0.0	71.8	70.3	73.6
	2007	485	32.2	18.4	5.1	3.7	0.0	1.9	19.3	17.7	1.7	59.3	57.7	60.9
Quebec, Canada	2003	300	41.3	37.1	3.2	2.2	1.1	0.7	14.3	0.0	0.0	83.9	83.6	84.2
	2007	549	27.6	27.2	3.6	2.5	0.6	0.9	15.0	21.1	1.5	60.9	59.5	62.2

V1 = Percent scoring 1 or better V2 = Percent scoring 2 or better
 Percent right for boys and girls corresponds to the percent obtaining the maximum score on the item.
 Because of missing gender information, some totals may appear inconsistent.

Science: Earth Science / Applying (S032650D - S11_12D)

Label: Changes at high elevations/DERIVED

Type: CR Key: -

COUNTRY	Year	N	20	10	70	OMIT TED	NOT REACH ED	V1	V2	1.GIRL %Right	2.BOY %Right
Armenia	2003	120	64.3	23.9	11.9	0.0	0.0	88.1	64.3	64.6	63.9
	2007	664	17.9	15.1	12.4	52.7	1.8	33.0	17.9	20.3	15.2
Australia	2003	315	60.1	30.3	9.6	0.0	0.0	90.4	60.1	55.8	63.8
	2007	583	57.2	24.7	8.5	8.2	1.3	81.9	57.2	53.4	60.5
Bahrain	2003	270	41.6	45.4	13.1	0.0	0.0	86.9	41.6	41.6	41.6
	2007	596	32.6	30.5	18.2	17.7	1.0	63.1	32.6	39.0	26.3
Botswana	2003	301	12.5	18.0	69.5	0.0	0.0	30.5	12.5	11.5	13.4
	2007	604	5.3	18.3	53.5	16.2	6.7	23.6	5.3	7.1	3.4
Bulgaria	2003	213	48.8	27.6	23.5	0.0	0.0	76.5	48.8	54.6	41.9
	2007	433	36.0	22.0	7.5	33.7	0.8	58.0	36.0	38.9	33.3
Chinese Taipei	2003	349	54.9	32.9	12.2	0.0	0.0	87.8	54.9	53.5	56.6
	2007	574	48.3	28.8	6.8	15.9	0.2	77.1	48.3	47.2	49.3
Cyprus	2003	198	22.5	48.3	29.2	0.0	0.0	70.8	22.5	15.2	31.4
	2007	621	15.6	33.8	20.5	29.7	0.4	49.4	15.6	15.6	15.6
Egypt	2003	491	12.0	36.6	51.4	0.0	0.0	48.6	12.0	13.5	10.8
	2007	944	13.9	30.9	37.1	17.4	0.6	44.8	13.9	16.1	11.8
England	2003	193	69.9	24.5	5.6	0.0	0.0	94.4	69.9	64.3	75.4
	2007	585	55.9	27.2	7.3	9.2	0.5	83.1	55.9	51.7	60.5
Ghana	2003	131	10.8	20.4	68.8	0.0	0.0	31.2	10.8	12.8	9.6
	2007	762	1.9	4.7	33.6	55.9	3.8	6.7	1.9	1.6	2.2
Hong Kong SAR	2003	313	45.4	33.5	21.1	0.0	0.0	78.9	45.4	42.4	48.4
	2007	494	44.3	27.3	8.4	19.5	0.5	71.6	44.3	45.2	43.4
Hungary	2003	252	68.1	28.0	3.9	0.0	0.0	96.1	68.1	66.4	70.2
	2007	593	59.6	27.5	6.0	6.7	0.1	87.1	59.6	59.1	60.1
Indonesia	2003	274	17.5	37.6	44.9	0.0	0.0	55.1	17.5	18.4	16.6
	2007	596	9.7	23.1	38.7	25.7	2.8	32.8	9.7	9.8	9.6
Iran, Islamic Rep. of	2003	262	29.0	31.0	40.0	0.0	0.0	60.0	29.0	32.1	26.9
	2007	579	14.3	22.5	30.9	29.9	2.4	36.8	14.3	12.5	15.9
Israel	2003	275	55.7	31.6	12.7	0.0	0.0	87.3	55.7	55.1	56.3
	2007	461	32.2	30.0	8.2	27.0	2.6	62.2	32.2	28.7	36.4
Italy	2003	228	39.2	46.1	14.7	0.0	0.0	85.3	39.2	37.8	40.6
	2007	625	19.7	38.9	12.1	28.2	1.1	58.6	19.7	14.9	24.2
Japan	2003	325	46.4	38.9	14.7	0.0	0.0	85.3	46.4	46.4	46.4
	2007	613	49.5	27.1	10.0	13.1	0.2	76.7	49.5	49.2	49.9
Jordan	2003	297	39.2	44.5	16.4	0.0	0.0	83.6	39.2	38.5	40.1
	2007	769	34.5	39.6	13.5	11.9	0.4	74.2	34.5	39.6	29.9
Korea, Rep. of	2003	364	57.9	28.8	13.3	0.0	0.0	86.7	57.9	48.2	67.5
	2007	603	48.1	29.4	9.5	13.0	0.0	77.5	48.1	44.2	51.7
Lebanon	2003	125	4.3	53.9	41.8	0.0	0.0	58.2	4.3	4.4	4.2
	2007	537	10.0	14.9	21.3	49.4	4.3	24.9	10.0	7.7	13.0

V1 = Percent scoring 1 or better V2 = Percent scoring 2 or better
 Percent right for boys and girls corresponds to the percent obtaining the maximum score on the item.
 Because of missing gender information, some totals may appear inconsistent.

Science: Earth Science / Applying (S032650D - S11_12D)
 Label: Changes at high elevations/DERIVED
 Type: CR Key: -

COUNTRY	Year	N	20	10	70	OMIT TED	NOT REACH ED	V1	V2	1.GIRL %Right	2.BOY %Right
Lithuania	2003	290	48.7	41.5	9.8	0.0	0.0	90.2	48.7	46.7	50.8
	2007	573	41.3	32.7	9.4	16.2	0.4	74.0	41.3	39.6	43.0
Malaysia	2003	298	39.8	42.5	17.6	0.0	0.0	82.4	39.8	38.0	41.8
	2007	638	17.8	33.6	25.4	21.6	1.5	51.4	17.8	15.6	20.3
Norway	2003	272	56.0	35.3	8.7	0.0	0.0	91.3	56.0	54.6	57.2
	2007	661	40.1	28.7	16.0	13.7	1.4	68.9	40.1	41.4	38.9
Palestinian Nat'l Auth.	2003	319	32.1	37.9	30.0	0.0	0.0	70.0	32.1	29.4	35.8
	2007	633	28.9	27.8	27.4	15.6	0.3	56.7	28.9	30.9	26.8
Romania	2003	235	39.1	47.9	12.9	0.0	0.0	87.1	39.1	36.1	42.6
	2007	602	30.7	32.1	15.8	20.9	0.6	62.8	30.7	29.7	31.8
Russian Federation	2003	220	48.0	40.8	11.2	0.0	0.0	88.8	48.0	44.2	50.8
	2007	626	27.8	33.0	9.8	26.9	2.6	60.8	27.8	25.4	30.5
Scotland	2003	230	64.7	29.9	5.4	0.0	0.0	94.6	64.7	56.5	72.6
	2007	569	51.3	24.4	6.8	16.3	1.1	75.7	51.3	49.6	52.8
Serbia	2003	225	37.9	37.2	24.8	0.0	0.0	75.2	37.9	34.9	40.3
	2007	577	26.2	22.9	14.9	34.5	1.5	49.1	26.2	26.2	26.2
Singapore	2003	447	63.9	29.9	6.2	0.0	0.0	93.8	63.9	66.5	61.6
	2007	654	54.3	26.0	9.5	10.2	0.0	80.3	54.3	51.2	57.3
Slovenia	2003	216	36.8	29.8	33.4	0.0	0.0	66.6	36.8	36.8	36.8
	2007	576	52.1	33.2	8.7	6.0	0.0	85.3	52.1	53.5	50.8
Sweden	2003	260	54.0	25.0	21.0	0.0	0.0	79.0	54.0	51.6	56.3
	2007	713	40.9	21.4	14.2	22.5	1.0	62.3	40.9	36.1	45.0
Tunisia	2003	291	41.3	41.0	17.6	0.0	0.0	82.4	41.3	45.6	37.1
	2007	585	27.6	35.8	16.3	18.6	1.7	63.3	27.6	24.2	31.7
United States	2003	647	53.8	33.8	12.4	0.0	0.0	87.6	53.8	45.6	62.8
	2007	1054	50.4	27.7	11.4	9.8	0.5	78.2	50.4	47.1	53.8
International Avg.	2003	280	42.9	35.0	22.1	0.0	0.0	77.9	42.9	41.3	44.6
	2007	627	33.2	27.1	16.7	21.6	1.3	60.4	33.2	32.5	34.0
Basque Country, Spain	2003	171	46.7	39.7	13.6	0.0	0.0	86.4	46.7	48.9	44.8
	2007	332	45.7	33.6	5.5	14.8	0.4	79.3	45.7	36.3	54.8
Ontario, Canada	2003	299	61.4	28.9	9.6	0.0	0.0	90.4	61.4	59.2	64.1
	2007	485	54.1	25.9	5.4	12.8	1.7	80.0	54.1	52.6	55.7
Quebec, Canada	2003	320	71.8	22.2	5.9	0.0	0.0	94.1	71.8	71.3	72.5
	2007	549	55.9	20.1	5.7	16.9	1.5	75.9	55.9	54.6	57.1

V1 = Percent scoring 1 or better V2 = Percent scoring 2 or better
 Percent right for boys and girls corresponds to the percent obtaining the maximum score on the item.
 Because of missing gender information, some totals may appear inconsistent.

Science: Biology / Knowing (S032514 - S11_13)
 Label: Growth of algae in a lake
 Type: MC Key: C

COUNTRY	Year	N	DIFF	A	B	C	D	OMIT TED	NOT REACH ED	1.GIRL %Right	2.BOY %Right
Armenia	2003	326	27.4	12.6	53.1	27.4	6.9	0.0	0.0	32.8	21.4
	2007	665	28.1	9.0	40.7	28.1	7.6	8.9	5.7	30.9	24.8
Australia	2003	360	40.4	21.3	25.7	40.4	12.5	0.0	0.0	32.8	47.6
	2007	583	37.5	20.5	27.7	37.5	11.1	1.3	1.8	38.3	36.8
Bahrain	2003	344	24.4	23.6	37.3	24.4	14.6	0.0	0.0	17.7	31.2
	2007	596	31.8	25.4	24.8	31.8	14.8	1.4	1.9	33.5	30.0
Botswana	2003	409	35.5	22.7	34.3	35.5	7.5	0.0	0.0	38.2	32.7
	2007	604	30.9	19.7	28.3	30.9	7.7	4.1	9.3	31.4	30.4
Bulgaria	2003	302	53.4	9.1	28.5	53.4	8.9	0.0	0.0	53.2	53.7
	2007	433	48.1	17.5	22.6	48.1	9.1	1.5	1.1	50.6	45.9
Chinese Taipei	2003	441	73.0	9.7	7.6	73.0	9.7	0.0	0.0	70.3	75.6
	2007	574	62.2	13.0	11.1	62.2	13.0	0.5	0.2	60.7	63.6
Cyprus	2003	326	51.3	7.2	29.7	51.3	11.8	0.0	0.0	46.9	55.4
	2007	621	47.5	12.0	25.8	47.5	12.7	0.8	1.2	47.4	47.6
Egypt	2003	570	36.9	15.8	29.9	36.9	17.3	0.0	0.0	35.1	38.4
	2007	944	43.4	13.5	23.1	43.4	17.4	1.3	1.2	41.8	45.0
England	2003	223	44.0	16.2	28.2	44.0	11.6	0.0	0.0	35.3	52.1
	2007	585	43.4	21.4	21.9	43.4	11.3	1.4	0.6	38.2	49.2
Ghana	2003	394	28.0	20.7	36.7	28.0	14.6	0.0	0.0	32.0	24.9
	2007	762	34.9	20.3	24.7	34.9	9.7	3.7	6.6	34.8	35.0
Hong Kong SAR	2003	415	70.4	7.3	16.3	70.4	6.0	0.0	0.0	68.5	72.1
	2007	494	57.5	15.6	9.8	57.5	15.0	1.6	0.5	56.2	58.8
Hungary	2003	272	51.0	13.6	28.3	51.0	7.1	0.0	0.0	48.3	54.1
	2007	593	46.2	18.5	27.0	46.2	5.8	1.3	1.2	45.6	46.7
Indonesia	2003	452	48.6	25.2	17.5	48.6	8.7	0.0	0.0	47.7	49.6
	2007	596	39.3	30.8	15.3	39.3	10.8	0.5	3.3	41.3	36.8
Iran, Islamic Rep. of	2003	406	44.0	15.4	33.4	44.0	7.1	0.0	0.0	45.6	43.0
	2007	579	40.6	14.9	33.8	40.6	5.9	0.3	4.4	41.2	40.0
Israel	2003	345	51.0	9.9	30.6	51.0	8.5	0.0	0.0	47.6	55.1
	2007	461	43.1	15.8	22.3	43.1	12.3	2.4	4.1	48.4	37.4
Italy	2003	334	52.5	8.6	21.9	52.5	17.0	0.0	0.0	53.5	51.6
	2007	623	45.4	11.3	20.3	45.4	19.4	1.4	2.2	40.4	50.1
Japan	2003	405	60.3	13.8	16.1	60.3	9.8	0.0	0.0	49.6	70.5
	2007	613	59.8	16.2	12.8	59.8	10.4	0.4	0.4	58.3	61.3
Jordan	2003	349	42.7	19.5	31.1	42.7	6.8	0.0	0.0	46.7	38.3
	2007	769	45.0	14.7	29.0	45.0	9.3	1.2	0.8	47.5	42.7
Korea, Rep. of	2003	437	45.1	24.8	25.2	45.1	4.8	0.0	0.0	45.3	45.0
	2007	603	51.9	22.1	18.0	51.9	7.6	0.2	0.2	54.2	49.7
Lebanon	2003	294	29.2	23.2	30.1	29.2	17.5	0.0	0.0	28.4	30.2
	2007	528	24.0	21.1	29.7	24.0	16.2	3.2	5.8	20.5	28.3

DIFF = Percent correct
 Because of missing gender information, some totals may appear inconsistent.

Trends in International Mathematics and Science Study - TIMSS 2007 Assessment Results
 Percent of Responses by Item Category (Weighted) - Science Trend Items - 8th Grade

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Science: Biology / Knowing (S032514 - S11_13)
 Label: Growth of algae in a lake
 Type: MC Key: C

COUNTRY	Year	N	DIFF	A	B	C	D	OMIT TED	NOT REACH ED	1.GIRL %Right	2.BOY %Right
Lithuania	2003	367	50.1	19.1	22.8	50.1	7.9	0.0	0.0	51.4	48.8
	2007	567	47.8	26.3	16.6	47.8	7.6	0.9	0.7	47.5	48.0
Malaysia	2003	445	54.7	22.9	14.4	54.7	8.0	0.0	0.0	53.9	55.6
	2007	638	46.8	23.1	15.4	46.8	11.6	1.1	2.0	44.0	50.0
Norway	2003	325	66.7	8.9	20.0	66.7	4.4	0.0	0.0	65.3	68.0
	2007	661	53.5	15.3	20.9	53.5	7.4	1.2	1.8	55.1	52.0
Palestinian Nat'l Auth.	2003	427	41.3	19.9	28.7	41.3	10.1	0.0	0.0	39.7	43.1
	2007	633	38.1	21.9	26.0	38.1	12.0	1.2	0.8	39.8	36.5
Romania	2003	327	62.9	9.7	23.1	62.9	4.3	0.0	0.0	59.4	66.6
	2007	602	65.0	8.7	19.3	65.0	4.0	1.5	1.5	66.9	62.8
Russian Federation	2003	359	61.4	7.1	24.1	61.4	7.4	0.0	0.0	63.0	60.1
	2007	626	59.0	5.8	24.0	59.0	6.6	1.1	3.5	58.3	59.8
Scotland	2003	290	46.4	19.3	22.9	46.4	11.5	0.0	0.0	39.5	53.7
	2007	569	39.3	21.2	22.2	39.3	14.3	1.5	1.6	38.8	39.8
Serbia	2003	337	46.3	14.4	31.4	46.3	7.9	0.0	0.0	46.5	46.1
	2007	571	44.2	13.0	33.2	44.2	5.1	2.7	1.9	43.3	45.2
Singapore	2003	488	63.3	17.0	12.1	63.3	7.6	0.0	0.0	65.9	61.0
	2007	654	58.9	16.3	14.2	58.9	10.0	0.7	0.0	55.5	62.3
Slovenia	2003	300	62.9	7.9	19.6	62.9	9.5	0.0	0.0	63.1	62.7
	2007	576	60.3	9.5	19.0	60.3	10.5	0.5	0.1	56.5	64.2
Sweden	2003	338	63.9	15.0	12.8	63.9	8.3	0.0	0.0	68.5	59.7
	2007	713	61.3	10.7	13.3	61.3	12.0	1.3	1.5	59.4	62.9
Tunisia	2003	377	48.5	14.9	24.8	48.5	11.7	0.0	0.0	50.9	46.0
	2007	585	37.1	22.1	22.3	37.1	12.1	2.6	3.8	38.5	35.3
United States	2003	727	48.2	17.2	24.9	48.2	9.7	0.0	0.0	40.6	56.0
	2007	1054	50.6	15.8	21.3	50.6	10.4	1.0	0.9	49.7	51.5
International Avg.	2003	379	49.3	15.6	25.6	49.3	9.6	0.0	0.0	48.0	50.6
	2007	627	46.1	17.1	22.3	46.1	10.6	1.7	2.2	45.9	46.4
Basque Country, Spain	2003	199	46.0	10.7	38.9	46.0	4.4	0.0	0.0	48.2	43.9
	2007	332	39.9	15.3	33.4	39.9	7.9	1.6	1.8	35.1	44.6
Ontario, Canada	2003	348	41.0	18.1	27.6	41.0	13.3	0.0	0.0	32.2	50.6
	2007	485	36.0	18.4	27.7	36.0	13.5	1.7	2.8	34.0	38.1
Quebec, Canada	2003	369	63.8	6.6	21.1	63.8	8.5	0.0	0.0	61.6	66.3
	2007	549	57.0	12.8	17.6	57.0	8.9	1.1	2.6	51.8	61.8

DIFF = Percent correct
 Because of missing gender information, some totals may appear inconsistent.

Science: Biology / Knowing (S032611 - S13_01)
 Label: Purpose of cellular respiration
 Type: MC Key: A

COUNTRY	Year	N	DIFF	A	B	C	D	OMIT TED	NOT REACH ED	1.GIRL %Right	2.BOY %Right
Armenia	2003	322	24.2	24.2	11.1	47.4	17.3	0.0	0.0	29.4	19.1
	2007	666	39.4	39.4	5.3	33.1	13.6	8.3	0.4	44.1	35.0
Australia	2003	375	34.3	34.3	14.8	34.5	16.4	0.0	0.0	31.8	36.9
	2007	574	38.5	38.5	11.2	36.3	11.3	2.7	0.0	39.0	37.9
Bahrain	2003	326	26.3	26.3	5.7	51.5	16.6	0.0	0.0	27.1	25.5
	2007	603	26.5	26.5	9.0	35.0	27.4	2.1	0.0	24.4	28.5
Botswana	2003	418	34.4	34.4	8.1	32.7	24.8	0.0	0.0	30.3	39.1
	2007	607	29.1	29.1	6.9	36.4	25.5	1.6	0.5	28.7	29.6
Bulgaria	2003	296	48.2	48.2	6.4	35.1	10.4	0.0	0.0	46.5	49.8
	2007	433	42.8	42.8	4.1	34.5	13.8	4.8	0.0	42.1	43.6
Chinese Taipei	2003	457	46.0	46.0	7.9	31.6	14.4	0.0	0.0	43.3	48.5
	2007	580	49.6	49.6	9.7	25.4	14.4	0.9	0.0	46.0	52.8
Cyprus	2003	326	26.8	26.8	16.0	45.1	12.1	0.0	0.0	29.6	24.2
	2007	630	29.1	29.1	9.5	47.0	12.4	2.0	0.0	28.9	29.4
Egypt	2003	558	15.7	15.7	7.3	42.4	34.7	0.0	0.0	14.2	16.9
	2007	937	21.5	21.5	7.5	42.3	26.6	2.1	0.0	24.9	18.1
England	2003	222	38.7	38.7	11.8	38.8	10.7	0.0	0.0	33.9	44.8
	2007	575	43.0	43.0	11.1	31.2	12.7	1.8	0.1	41.2	45.0
Ghana	2003	426	36.3	36.3	10.1	29.3	24.3	0.0	0.0	33.1	38.9
	2007	756	35.9	35.9	7.9	23.3	29.1	2.2	1.5	35.7	36.1
Hong Kong SAR	2003	399	46.1	46.1	16.3	26.8	10.8	0.0	0.0	45.2	46.9
	2007	495	45.6	45.6	14.7	24.0	14.2	1.2	0.3	43.6	47.5
Hungary	2003	252	16.0	16.0	6.9	51.1	26.1	0.0	0.0	10.2	22.7
	2007	591	26.7	26.7	5.0	40.9	23.9	3.5	0.0	20.8	33.3
Indonesia	2003	463	24.1	24.1	10.1	29.5	36.3	0.0	0.0	21.8	26.7
	2007	587	31.1	31.1	7.8	28.6	29.9	2.5	0.2	34.0	28.4
Iran, Islamic Rep. of	2003	392	23.3	23.3	6.5	61.0	9.2	0.0	0.0	19.0	26.2
	2007	562	27.6	27.6	5.0	54.8	10.4	2.0	0.2	29.5	25.9
Israel	2003	338	51.4	51.4	4.0	30.8	13.8	0.0	0.0	49.5	53.3
	2007	455	43.3	43.3	6.2	30.9	13.2	5.9	0.4	41.8	45.0
Italy	2003	343	43.6	43.6	6.2	34.8	15.4	0.0	0.0	42.7	44.7
	2007	621	38.9	38.9	9.2	32.6	16.6	2.5	0.1	39.6	38.2
Japan	2003	404	54.2	54.2	5.9	25.2	14.7	0.0	0.0	50.7	57.2
	2007	630	59.5	59.5	6.6	21.0	12.0	0.9	0.1	56.3	62.8
Jordan	2003	355	21.8	21.8	17.9	35.4	24.9	0.0	0.0	20.2	23.3
	2007	746	31.7	31.7	13.8	29.0	23.4	2.2	0.0	29.4	33.9
Korea, Rep. of	2003	442	65.0	65.0	2.3	15.0	17.8	0.0	0.0	62.1	67.5
	2007	608	65.9	65.9	2.6	11.8	19.1	0.5	0.0	62.3	69.6
Lebanon	2003	286	27.6	27.6	8.7	53.7	9.9	0.0	0.0	26.2	29.8
	2007	530	32.6	32.6	6.0	39.0	14.1	7.8	0.4	33.7	31.3

DIFF = Percent correct
 Because of missing gender information, some totals may appear inconsistent.

Science: Biology / Knowing (S032611 - S13_01)
 Label: Purpose of cellular respiration
 Type: MC Key: A

COUNTRY	Year	N	DIFF	A	B	C	D	OMIT TED	NOT REACH ED	1.GIRL %Right	2.BOY %Right
Lithuania	2003	383	52.3	52.3	3.1	13.0	31.6	0.0	0.0	50.9	53.8
	2007	567	51.4	51.4	3.5	11.8	31.3	1.9	0.0	48.5	54.5
Malaysia	2003	432	36.8	36.8	8.3	31.0	23.9	0.0	0.0	35.3	38.4
	2007	641	39.0	39.0	10.7	28.5	20.9	0.9	0.0	37.6	40.5
Norway	2003	329	31.9	31.9	19.1	34.7	14.2	0.0	0.0	27.6	36.3
	2007	642	35.0	35.0	13.3	29.7	17.2	4.4	0.2	35.8	34.2
Palestinian Nat'l Auth.	2003	432	24.7	24.7	10.9	39.9	24.5	0.0	0.0	24.5	25.1
	2007	621	21.6	21.6	12.5	36.6	26.0	3.3	0.0	22.0	21.2
Romania	2003	329	26.9	26.9	4.8	52.6	15.8	0.0	0.0	25.4	28.2
	2007	597	21.7	21.7	4.3	48.2	21.8	3.9	0.0	18.9	24.4
Russian Federation	2003	369	53.3	53.3	3.8	29.7	13.2	0.0	0.0	50.4	55.6
	2007	636	52.2	52.2	5.0	29.6	11.5	1.7	0.0	50.5	54.3
Scotland	2003	287	38.2	38.2	9.9	41.7	10.2	0.0	0.0	40.3	36.1
	2007	582	39.7	39.7	10.1	35.4	12.2	2.5	0.0	40.0	39.4
Serbia	2003	354	38.2	38.2	2.7	46.8	12.3	0.0	0.0	41.8	34.6
	2007	574	36.8	36.8	3.7	42.2	13.9	3.4	0.0	42.8	31.3
Singapore	2003	487	45.5	45.5	9.7	25.1	19.7	0.0	0.0	43.8	47.2
	2007	653	49.7	49.7	9.8	23.8	16.0	0.7	0.0	51.9	47.5
Slovenia	2003	292	44.2	44.2	6.2	37.2	12.4	0.0	0.0	44.3	44.1
	2007	562	38.1	38.1	8.7	33.5	18.6	1.1	0.0	34.6	41.5
Sweden	2003	355	36.2	36.2	12.0	32.2	19.6	0.0	0.0	32.4	39.8
	2007	723	31.7	31.7	11.2	31.2	23.7	2.3	0.0	26.2	37.0
Tunisia	2003	370	36.7	36.7	4.7	40.3	18.3	0.0	0.0	39.7	33.9
	2007	586	40.0	40.0	4.4	34.6	13.9	6.9	0.2	39.5	40.5
United States	2003	747	41.4	41.4	9.1	41.0	8.5	0.0	0.0	41.5	41.3
	2007	1054	36.6	36.6	9.5	39.5	12.7	1.4	0.2	36.6	36.7
International Avg.	2003	381	36.7	36.7	8.7	36.9	17.7	0.0	0.0	35.3	38.1
	2007	625	37.9	37.9	8.1	32.8	18.3	2.8	0.1	37.3	38.6
Basque Country, Spain	2003	201	37.9	37.9	19.8	33.9	8.3	0.0	0.0	39.0	37.0
	2007	328	33.7	33.7	15.2	37.4	10.2	3.5	0.0	30.4	36.5
Ontario, Canada	2003	346	35.9	35.9	8.8	45.7	9.5	0.0	0.0	33.5	38.3
	2007	485	35.4	35.4	8.4	42.5	12.1	1.6	0.0	27.0	44.0
Quebec, Canada	2003	356	35.3	35.3	14.1	45.2	5.3	0.0	0.0	31.0	40.6
	2007	578	31.9	31.9	9.9	41.5	15.6	1.1	0.0	28.2	35.9

DIFF = Percent correct
 Because of missing gender information, some totals may appear inconsistent.

Science: Biology / Knowing (S032614 - S13_02)
 Label: Number of kidneys son has at birth
 Type: CR Key: -

COUNTRY	Year	N	10	11	19	70	71	79	OMIT TED	NOT REACH ED	V1	1.GIRL %Right	2.BOY %Right
Armenia	2003	289	26.5	26.2	1.6	30.2	10.4	5.0	0.0	0.0	54.4	61.0	47.1
	2007	662	34.2	9.9	1.6	38.4	3.3	4.9	7.2	0.4	45.8	54.8	37.3
Australia	2003	373	14.3	49.8	0.3	21.9	10.1	3.6	0.0	0.0	64.4	70.9	57.4
	2007	574	11.4	62.1	1.4	12.5	8.1	2.0	2.5	0.0	74.9	81.7	67.8
Bahrain	2003	295	11.8	11.2	4.4	42.9	23.5	6.2	0.0	0.0	27.5	36.4	17.4
	2007	603	13.1	28.7	0.7	26.2	15.9	6.2	9.2	0.0	42.5	58.2	27.4
Botswana	2003	395	1.3	25.7	0.0	36.3	19.0	17.7	0.0	0.0	27.0	29.2	24.6
	2007	607	3.7	24.3	0.2	30.1	19.5	18.0	3.7	0.5	28.3	29.7	26.6
Bulgaria	2003	287	10.8	28.7	5.9	43.9	4.7	6.1	0.0	0.0	45.4	50.1	40.8
	2007	433	14.2	27.6	0.2	38.6	4.0	1.9	13.5	0.0	42.0	46.2	37.5
Chinese Taipei	2003	451	26.4	37.8	0.1	25.4	9.5	0.8	0.0	0.0	64.4	69.2	59.8
	2007	580	32.3	36.6	1.2	18.5	9.0	0.9	1.5	0.0	70.0	75.3	65.3
Cyprus	2003	301	5.0	36.6	0.9	35.6	14.6	7.3	0.0	0.0	42.5	51.6	33.5
	2007	630	4.2	39.2	0.7	26.8	16.3	4.5	8.3	0.0	44.1	52.0	36.0
Egypt	2003	523	16.0	7.8	1.1	21.7	19.9	33.5	0.0	0.0	24.9	29.2	21.5
	2007	941	7.1	11.8	0.0	25.7	17.3	25.0	13.2	0.0	18.9	18.9	18.8
England	2003	216	9.5	55.9	0.0	21.8	12.5	0.3	0.0	0.0	65.3	64.0	67.1
	2007	575	21.1	53.0	0.0	13.1	8.4	2.4	1.9	0.1	74.1	76.0	72.1
Ghana	2003	323	1.9	9.3	1.8	33.0	21.0	33.0	0.0	0.0	13.0	11.8	14.0
	2007	756	3.0	17.1	0.0	17.7	18.6	21.6	20.6	1.5	20.1	20.4	19.8
Hong Kong SAR	2003	397	25.4	40.8	0.1	26.6	6.9	0.3	0.0	0.0	66.3	70.8	61.7
	2007	495	26.6	38.4	1.2	19.7	5.9	5.4	2.5	0.3	66.2	68.8	63.7
Hungary	2003	252	28.1	26.9	1.0	35.2	8.2	0.6	0.0	0.0	56.0	61.7	49.6
	2007	591	27.1	37.1	0.3	18.9	11.4	2.2	2.9	0.0	64.6	71.4	56.9
Indonesia	2003	444	12.5	19.1	3.1	33.2	23.0	9.1	0.0	0.0	34.7	36.4	32.7
	2007	587	17.3	23.2	1.6	20.0	17.5	14.1	6.1	0.2	42.1	44.2	40.1
Iran, Islamic Rep. of	2003	372	19.3	11.7	16.0	36.4	12.9	3.7	0.0	0.0	47.0	54.6	41.4
	2007	562	18.9	27.5	1.9	28.0	13.0	6.0	4.6	0.2	48.3	49.2	47.4
Israel	2003	318	28.2	25.5	2.6	28.2	8.8	6.6	0.0	0.0	56.3	65.2	47.2
	2007	455	20.6	28.8	0.9	23.8	6.0	6.2	13.0	0.7	50.3	54.1	45.9
Italy	2003	319	25.7	31.4	3.2	31.3	5.6	2.7	0.0	0.0	60.4	67.4	51.8
	2007	622	26.1	19.6	2.0	32.8	7.7	3.0	8.7	0.1	47.6	51.3	44.0
Japan	2003	385	10.1	46.9	3.5	18.0	18.1	3.4	0.0	0.0	60.5	61.5	59.5
	2007	630	8.9	54.8	0.0	13.1	14.8	3.9	4.3	0.1	63.7	66.6	60.7
Jordan	2003	342	19.3	17.9	2.3	32.9	18.6	9.0	0.0	0.0	39.5	49.8	28.6
	2007	746	35.1	15.5	2.5	19.7	16.1	7.0	4.2	0.0	53.0	63.6	42.8
Korea, Rep. of	2003	434	25.5	43.2	1.2	19.9	9.8	0.5	0.0	0.0	69.8	74.1	66.1
	2007	608	22.5	50.9	0.0	12.4	12.3	1.2	0.8	0.0	73.3	75.8	70.9
Lebanon	2003	225	2.7	27.9	30.7	9.0	18.8	10.9	0.0	0.0	61.3	61.7	60.7
	2007	540	4.6	18.6	0.1	25.3	14.2	13.3	23.6	0.4	23.3	26.1	19.8

V1 = Percent scoring 1 or better V2 = Percent scoring 2 or better
 Percent right for boys and girls corresponds to the percent obtaining the maximum score on the item.
 Because of missing gender information, some totals may appear inconsistent.

Science: Biology / Knowing (S032614 - S13_02)
 Label: Number of kidneys son has at birth
 Type: CR Key: -

COUNTRY	Year	N	10	11	19	70	71	79	OMIT TED	NOT REACH ED	V1	1.GIRL %Right	2.BOY %Right
Lithuania	2003	377	35.9	31.3	0.2	26.1	1.5	5.0	0.0	0.0	67.4	77.8	56.9
	2007	569	15.6	50.1	0.0	23.5	6.5	1.5	2.9	0.0	65.7	73.6	57.4
Malaysia	2003	403	15.0	39.7	2.4	26.7	11.5	4.7	0.0	0.0	57.0	66.0	47.2
	2007	641	14.1	27.6	1.9	21.8	14.6	13.1	6.8	0.0	43.7	48.3	38.5
Norway	2003	330	12.1	43.5	0.2	26.7	14.0	3.5	0.0	0.0	55.8	62.4	48.7
	2007	642	10.6	40.4	0.0	23.4	15.3	6.7	3.4	0.2	51.0	61.1	41.3
Palestinian Nat'l Auth.	2003	410	13.1	23.3	1.1	28.4	20.7	13.5	0.0	0.0	37.4	44.5	27.8
	2007	621	12.8	27.8	0.2	19.3	17.2	17.0	5.7	0.0	40.7	51.6	29.4
Romania	2003	328	5.2	45.2	1.1	35.8	8.1	4.4	0.0	0.0	51.6	59.7	43.8
	2007	597	13.0	22.6	3.2	41.9	6.7	7.7	4.2	0.5	38.9	42.1	35.8
Russian Federation	2003	344	15.6	41.2	0.2	29.8	12.5	0.7	0.0	0.0	57.0	67.5	49.0
	2007	636	20.8	43.6	0.0	22.1	7.0	1.8	4.4	0.3	64.4	69.2	58.7
Scotland	2003	281	8.5	41.6	0.3	36.5	9.7	3.5	0.0	0.0	50.3	60.7	39.1
	2007	582	7.4	47.6	0.0	25.3	13.6	3.5	2.7	0.0	55.0	60.9	48.2
Serbia	2003	351	7.6	25.5	4.0	52.0	6.0	4.9	0.0	0.0	37.1	44.5	29.8
	2007	576	16.0	36.9	1.0	35.1	4.4	1.6	5.1	0.0	53.9	65.3	43.2
Singapore	2003	492	18.1	48.9	0.4	23.7	7.4	1.6	0.0	0.0	67.4	72.4	62.5
	2007	653	26.6	42.3	1.4	16.2	8.9	3.4	1.1	0.0	70.3	76.9	63.8
Slovenia	2003	293	14.2	36.2	0.3	31.1	13.6	4.5	0.0	0.0	50.7	59.5	41.8
	2007	562	25.6	40.1	0.0	20.5	8.7	3.5	1.6	0.0	65.7	70.2	61.2
Sweden	2003	347	21.5	43.6	0.0	20.5	8.5	5.9	0.0	0.0	65.0	68.2	62.1
	2007	723	10.3	47.3	0.6	27.0	8.2	4.4	2.2	0.0	58.3	66.7	50.1
Tunisia	2003	349	8.7	9.6	2.5	43.7	19.0	16.5	0.0	0.0	20.8	21.3	20.3
	2007	586	8.2	26.0	1.1	27.8	24.9	5.5	6.1	0.5	35.2	34.1	36.5
United States	2003	736	15.7	53.7	0.2	18.5	7.5	4.4	0.0	0.0	69.7	75.6	63.0
	2007	1054	13.5	56.8	0.5	17.0	8.0	2.7	1.3	0.2	70.8	74.2	67.1
International Avg.	2003	363	15.5	32.2	2.8	29.8	12.6	7.1	0.0	0.0	50.5	56.3	44.7
	2007	625	16.6	34.4	0.8	23.7	11.6	6.7	6.1	0.2	51.7	56.9	46.4
Basque Country, Spain	2003	201	20.4	43.4	0.0	27.3	5.7	3.3	0.0	0.0	63.8	72.5	56.4
	2007	328	14.1	57.7	2.3	13.7	8.9	1.8	1.5	0.0	74.1	81.6	67.9
Ontario, Canada	2003	333	16.8	53.9	2.7	14.4	10.0	2.3	0.0	0.0	73.3	75.8	70.9
	2007	485	13.9	49.1	1.0	19.3	9.0	3.4	4.4	0.0	63.9	66.4	61.4
Quebec, Canada	2003	352	18.1	54.8	1.1	19.3	4.2	2.5	0.0	0.0	74.0	79.1	68.1
	2007	578	20.5	49.3	0.1	18.0	5.5	4.5	2.0	0.0	70.0	71.7	68.2

V1 = Percent scoring 1 or better V2 = Percent scoring 2 or better
 Percent right for boys and girls corresponds to the percent obtaining the maximum score on the item.
 Because of missing gender information, some totals may appear inconsistent.

Science: Biology / Applying (S032451 - S13_03)
 Label: Difference in shell colors of snails
 Type: CR Key: -

COUNTRY	Year	N	20	21	29	10	19	70	79	OMIT TED	NOT REACH ED	V1	V2	1.GIRL %Right	2.BOY %Right
Armenia	2003	156	47.3	27.7	1.4	1.5	8.8	2.1	11.1	0.0	0.0	86.8	76.5	72.6	81.3
	2007	664	14.2	10.3	2.3	13.9	2.0	3.1	17.1	36.5	0.5	42.7	26.8	29.2	24.6
Australia	2003	362	17.8	54.9	0.3	2.5	2.3	3.3	18.9	0.0	0.0	77.9	73.0	73.8	72.3
	2007	574	25.9	46.0	1.3	3.8	1.4	3.1	11.6	6.8	0.0	78.5	73.3	75.4	71.1
Bahrain	2003	227	22.5	18.1	0.6	4.0	3.1	11.2	40.5	0.0	0.0	48.3	41.2	43.8	37.8
	2007	603	10.5	12.4	0.4	10.6	2.1	3.6	34.7	25.7	0.0	36.1	23.3	31.2	15.8
Botswana	2003	310	12.1	6.1	0.0	9.9	1.5	2.2	68.2	0.0	0.0	29.6	18.2	17.8	18.6
	2007	607	6.9	4.1	0.2	9.3	0.2	3.3	55.9	19.5	0.7	20.6	11.2	11.7	10.6
Bulgaria	2003	228	16.7	31.8	1.8	4.7	21.3	2.5	21.0	0.0	0.0	76.5	50.4	54.5	46.3
	2007	433	13.6	33.3	0.0	4.0	0.1	4.7	11.2	33.2	0.0	50.9	46.9	48.2	45.4
Chinese Taipei	2003	409	36.4	32.2	0.7	5.0	1.5	2.7	21.6	0.0	0.0	75.8	69.2	68.0	70.5
	2007	580	35.1	36.3	0.2	2.5	1.2	0.2	14.2	10.4	0.0	75.2	71.5	69.7	73.1
Cyprus	2003	218	25.2	21.1	0.0	3.9	0.3	6.8	42.7	0.0	0.0	50.5	46.3	43.9	49.0
	2007	630	17.3	10.1	0.1	4.4	7.8	2.6	28.3	29.4	0.0	39.7	27.5	29.8	25.1
Egypt	2003	474	12.2	14.6	1.0	10.8	2.9	4.6	53.9	0.0	0.0	41.5	27.8	33.7	23.5
	2007	942	6.5	9.1	0.0	3.6	0.0	12.0	45.2	23.7	0.0	19.1	15.5	18.4	12.6
England	2003	209	20.2	50.9	0.0	6.6	0.0	5.2	17.0	0.0	0.0	77.8	71.1	69.7	73.1
	2007	575	33.6	39.6	0.0	6.7	0.3	3.4	11.5	4.7	0.1	80.2	73.2	73.5	72.8
Ghana	2003	173	3.0	4.8	0.3	5.9	0.0	5.7	80.3	0.0	0.0	14.0	8.1	7.3	8.6
	2007	756	1.3	1.3	0.0	3.8	0.0	2.8	36.5	52.3	2.1	6.4	2.6	2.9	2.3
Hong Kong SAR	2003	367	36.9	25.2	0.0	18.1	0.9	3.4	15.6	0.0	0.0	81.1	62.1	58.5	65.8
	2007	495	32.4	26.3	0.2	11.2	0.2	1.2	13.7	14.6	0.3	70.2	58.8	63.4	54.4
Hungary	2003	246	24.4	62.1	0.3	4.0	0.0	0.4	8.8	0.0	0.0	90.8	86.8	86.7	86.9
	2007	591	24.0	55.0	0.2	3.5	0.0	1.0	9.9	6.5	0.0	82.6	79.2	80.1	78.1
Indonesia	2003	318	9.6	9.2	0.8	10.9	3.5	7.7	58.3	0.0	0.0	34.0	19.6	18.5	20.8
	2007	587	10.2	10.2	0.0	10.9	1.1	4.1	45.2	18.2	0.2	32.3	20.4	15.8	24.8
Iran, Islamic Rep. of	2003	249	27.4	11.4	9.0	4.1	11.8	2.8	33.6	0.0	0.0	63.6	47.7	46.2	48.8
	2007	562	14.2	10.3	1.2	9.3	1.8	6.2	29.1	27.8	0.2	36.8	25.6	28.0	23.6
Israel	2003	272	28.6	34.4	1.6	11.6	4.7	3.3	15.8	0.0	0.0	80.9	64.6	63.4	65.8
	2007	455	17.7	29.8	0.0	5.6	0.9	3.1	20.3	21.8	0.7	54.0	47.5	47.8	47.2
Italy	2003	274	20.5	46.2	1.5	8.4	1.7	4.1	17.5	0.0	0.0	78.4	68.3	63.7	73.7
	2007	622	9.7	37.0	1.1	2.9	2.0	5.3	16.7	25.1	0.3	52.7	47.8	48.4	47.1
Japan	2003	376	44.5	11.4	0.0	31.9	0.0	0.8	11.4	0.0	0.0	87.8	56.0	58.0	54.1
	2007	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Jordan	2003	267	17.2	17.0	3.8	6.6	6.4	5.6	43.4	0.0	0.0	51.0	38.0	45.7	30.7
	2007	746	18.7	18.3	0.9	9.2	5.4	1.1	34.9	11.5	0.0	52.5	37.9	46.4	29.7
Korea, Rep. of	2003	424	50.0	25.2	0.0	12.2	0.0	0.3	12.3	0.0	0.0	87.4	75.3	70.7	79.4
	2007	608	48.6	10.5	0.0	19.7	0.0	1.1	15.7	4.3	0.0	78.8	59.1	59.1	59.2
Lebanon	2003	142	7.2	6.3	0.0	15.0	9.3	8.1	54.1	0.0	0.0	37.8	13.6	16.4	10.0
	2007	540	3.5	2.8	0.2	12.7	2.0	6.1	27.3	44.6	0.9	21.1	6.4	5.0	8.3

V1 = Percent scoring 1 or better V2 = Percent scoring 2 or better
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 Because of missing gender information, some totals may appear inconsistent.

Science: Biology / Applying (S032451 - S13_03)
 Label: Difference in shell colors of snails
 Type: CR Key: -

COUNTRY	Year	N	20	21	29	10	19	70	79	OMIT TED	NOT REACH ED	V1	V2	1.GIRL %Right	2.BOY %Right
Lithuania	2003	346	33.9	45.8	0.0	7.9	0.0	2.5	9.9	0.0	0.0	87.6	79.7	79.9	79.5
	2007	569	32.6	32.0	0.1	12.8	0.2	3.6	8.9	9.8	0.0	77.7	64.8	63.6	66.0
Malaysia	2003	314	20.5	10.7	0.7	13.7	1.4	7.1	45.8	0.0	0.0	47.0	32.0	30.9	33.1
	2007	641	8.8	7.5	1.1	11.5	1.7	7.5	41.0	20.9	0.0	30.6	17.4	19.0	15.6
Norway	2003	304	23.4	46.9	0.0	7.4	0.8	7.4	14.1	0.0	0.0	78.5	70.3	72.4	67.9
	2007	642	14.6	41.3	0.0	5.0	0.0	8.2	19.3	11.4	0.2	60.9	55.9	59.8	52.1
Palestinian Nat'l Auth.	2003	332	13.6	10.6	7.5	10.1	2.9	4.6	50.7	0.0	0.0	44.7	31.7	32.4	30.6
	2007	621	11.5	8.4	0.7	8.6	2.9	5.7	45.3	16.8	0.0	32.1	20.6	24.7	16.3
Romania	2003	241	24.1	20.9	3.1	5.6	1.4	14.1	30.9	0.0	0.0	55.0	48.1	39.0	56.6
	2007	597	11.5	15.8	0.9	14.4	2.3	5.1	21.9	27.5	0.5	45.0	28.2	26.0	30.2
Russian Federation	2003	359	34.3	52.2	1.5	5.3	1.1	0.9	4.7	0.0	0.0	94.4	88.0	89.8	86.7
	2007	636	36.6	37.3	0.0	6.1	0.4	6.3	5.6	7.6	0.3	80.3	73.8	71.0	77.2
Scotland	2003	278	23.0	54.6	0.0	1.9	0.3	4.8	15.5	0.0	0.0	79.7	77.5	75.8	79.4
	2007	582	21.2	42.5	0.0	6.2	0.0	4.7	16.2	9.1	0.0	70.0	63.7	63.0	64.5
Serbia	2003	264	23.7	38.6	2.9	4.1	4.1	6.2	20.5	0.0	0.0	73.3	65.2	61.3	69.1
	2007	576	23.2	29.3	0.0	4.6	1.0	5.3	11.6	25.0	0.0	58.1	52.5	54.7	50.4
Singapore	2003	466	51.8	27.0	0.0	5.5	0.0	3.1	12.5	0.0	0.0	84.4	78.9	79.4	78.4
	2007	653	37.9	26.4	0.1	9.4	1.3	3.9	14.7	6.2	0.0	75.2	64.4	64.1	64.8
Slovenia	2003	267	28.3	30.3	1.2	12.8	3.6	9.3	14.5	0.0	0.0	76.2	59.8	71.1	48.7
	2007	560	32.1	28.3	0.0	15.7	0.0	4.6	12.1	7.3	0.0	76.1	60.4	65.1	55.7
Sweden	2003	323	20.9	50.3	0.0	7.3	0.3	6.7	14.4	0.0	0.0	78.8	71.2	68.4	73.7
	2007	723	26.8	36.3	0.1	4.2	0.3	6.8	13.8	11.7	0.0	67.7	63.2	66.4	60.1
Tunisia	2003	298	17.9	14.2	0.0	10.4	1.3	3.2	53.0	0.0	0.0	43.8	32.1	29.8	34.2
	2007	586	6.1	10.5	0.6	10.5	2.1	2.6	47.0	20.2	0.5	29.7	17.1	14.6	19.8
United States	2003	713	32.0	45.1	0.0	4.6	0.8	3.0	14.5	0.0	0.0	82.5	77.0	78.9	74.9
	2007	1054	28.5	42.9	0.1	3.5	0.0	2.9	18.2	3.7	0.2	75.0	71.5	71.4	71.6
International Avg.	2003	309	25.1	29.0	1.2	8.3	3.0	4.7	28.7	0.0	0.0	66.6	55.3	55.2	55.4
	2007	625	19.9	23.8	0.4	8.1	1.3	4.2	23.6	18.6	0.2	53.4	44.0	45.2	42.8
Basque Country, Spain	2003	175	18.0	33.8	1.6	12.0	1.0	13.4	20.2	0.0	0.0	66.4	53.4	55.2	51.7
	2007	328	17.7	25.9	1.1	5.6	1.9	12.3	20.8	14.7	0.0	52.3	44.8	32.3	55.2
Ontario, Canada	2003	331	32.3	47.3	0.0	5.2	3.5	4.8	7.0	0.0	0.0	88.2	79.6	74.9	84.3
	2007	485	29.5	42.3	0.0	4.6	0.0	5.2	12.1	6.3	0.0	76.4	71.8	68.8	74.9
Quebec, Canada	2003	334	14.2	58.1	0.9	2.7	0.4	7.6	16.2	0.0	0.0	76.2	73.1	71.5	75.0
	2007	578	18.7	45.7	0.3	4.3	0.0	3.7	18.1	9.1	0.0	69.1	64.7	64.0	65.5

V1 = Percent scoring 1 or better V2 = Percent scoring 2 or better
 Percent right for boys and girls corresponds to the percent obtaining the maximum score on the item.
 Because of missing gender information, some totals may appear inconsistent.

Science: Chemistry / Reasoning (S032156 - S13_04)
 Label: Solubility/temperature graphs
 Type: MC Key: C

COUNTRY	Year	N	DIFF	A	B	C	D	OMIT TED	NOT REACH ED	1.GIRL %Right	2.BOY %Right
Armenia	2003	300	28.2	23.5	33.5	28.2	14.8	0.0	0.0	34.0	23.2
	2007	669	39.0	10.2	26.3	39.0	7.9	16.2	0.5	42.8	35.5
Australia	2003	381	47.2	22.2	17.1	47.2	13.5	0.0	0.0	40.8	53.8
	2007	574	51.5	15.5	12.1	51.5	18.4	2.4	0.2	50.9	52.1
Bahrain	2003	311	27.5	21.6	26.5	27.5	24.4	0.0	0.0	22.6	32.7
	2007	603	33.4	18.3	22.6	33.4	22.1	3.5	0.1	35.1	31.8
Botswana	2003	414	23.9	16.8	30.5	23.9	28.8	0.0	0.0	23.2	24.7
	2007	607	28.0	12.1	31.5	28.0	23.9	2.9	1.6	27.5	28.6
Bulgaria	2003	284	34.8	10.8	35.2	34.8	19.1	0.0	0.0	37.3	32.6
	2007	433	33.7	8.8	25.2	33.7	20.9	11.3	0.1	33.4	34.1
Chinese Taipei	2003	458	74.0	7.4	7.1	74.0	11.6	0.0	0.0	77.0	71.2
	2007	580	72.5	7.8	10.6	72.5	8.3	0.8	0.0	68.7	75.8
Cyprus	2003	323	29.7	18.2	29.1	29.7	23.0	0.0	0.0	29.3	30.0
	2007	630	29.6	17.3	27.7	29.6	20.8	4.4	0.1	28.5	30.6
Egypt	2003	563	53.5	16.8	13.0	53.5	16.7	0.0	0.0	59.1	48.9
	2007	939	43.8	16.7	23.9	43.8	12.8	2.8	0.0	45.0	42.5
England	2003	218	62.1	13.2	11.7	62.1	13.0	0.0	0.0	63.4	60.4
	2007	575	66.1	9.0	8.6	66.1	13.4	2.7	0.1	69.1	62.9
Ghana	2003	421	18.2	20.4	36.6	18.2	24.8	0.0	0.0	20.7	16.2
	2007	756	18.1	20.6	28.0	18.1	24.1	6.9	2.3	19.3	17.3
Hong Kong SAR	2003	401	57.0	21.6	12.5	57.0	8.9	0.0	0.0	52.5	61.6
	2007	495	53.2	18.2	11.8	53.2	14.9	1.1	0.7	54.4	51.9
Hungary	2003	262	59.2	5.8	20.6	59.2	14.4	0.0	0.0	59.0	59.6
	2007	591	51.7	9.6	19.7	51.7	14.7	4.3	0.0	53.4	49.8
Indonesia	2003	469	26.3	19.9	31.8	26.3	22.0	0.0	0.0	23.1	29.8
	2007	587	27.1	22.6	32.5	27.1	14.7	2.7	0.3	25.8	28.4
Iran, Islamic Rep. of	2003	383	19.2	16.8	38.8	19.2	25.2	0.0	0.0	17.1	20.6
	2007	562	21.1	20.2	32.2	21.1	20.5	5.3	0.8	22.4	19.9
Israel	2003	321	41.6	19.6	20.9	41.6	17.9	0.0	0.0	39.8	43.5
	2007	455	38.2	16.1	17.2	38.2	16.1	11.3	1.1	35.0	41.9
Italy	2003	321	38.4	14.9	33.8	38.4	12.9	0.0	0.0	37.8	39.1
	2007	621	33.4	16.5	25.0	33.4	18.8	5.9	0.4	37.7	29.3
Japan	2003	403	74.8	8.2	7.9	74.8	9.1	0.0	0.0	72.6	76.6
	2007	630	76.3	7.1	8.8	76.3	6.7	0.9	0.1	79.7	72.9
Jordan	2003	358	45.6	12.3	24.0	45.6	18.1	0.0	0.0	46.6	44.6
	2007	746	55.1	9.7	18.0	55.1	14.1	3.1	0.0	62.6	47.8
Korea, Rep. of	2003	443	77.8	7.6	9.6	77.8	5.0	0.0	0.0	78.9	76.9
	2007	608	81.5	5.9	7.7	81.5	4.7	0.2	0.0	82.3	80.7
Lebanon	2003	288	34.8	15.2	28.1	34.8	22.0	0.0	0.0	31.0	40.2
	2007	534	38.3	13.4	17.9	38.3	18.7	10.8	0.9	39.0	37.3

DIFF = Percent correct
 Because of missing gender information, some totals may appear inconsistent.

Science: Chemistry / Reasoning (S032156 - S13_04)
 Label: Solubility/temperature graphs
 Type: MC Key: C

COUNTRY	Year	N	DIFF	A	B	C	D	OMIT TED	NOT REACH ED	1.GIRL %Right	2.BOY %Right
Lithuania	2003	377	57.1	13.5	13.7	57.1	15.7	0.0	0.0	55.8	58.3
	2007	569	52.3	13.0	13.9	52.3	19.0	1.8	0.0	50.6	54.1
Malaysia	2003	437	61.8	15.4	11.2	61.8	11.6	0.0	0.0	65.7	57.5
	2007	641	55.0	18.1	13.8	55.0	11.8	1.2	0.2	58.3	51.2
Norway	2003	322	44.1	9.5	30.5	44.1	15.8	0.0	0.0	41.2	47.1
	2007	642	44.6	9.2	23.6	44.6	16.8	5.6	0.2	46.5	42.8
Palestinian Nat'l Auth.	2003	422	35.6	18.9	25.0	35.6	20.5	0.0	0.0	38.3	32.0
	2007	621	41.0	16.1	19.8	41.0	19.7	3.4	0.0	42.1	39.8
Romania	2003	327	32.5	13.6	34.4	32.5	19.4	0.0	0.0	33.6	31.6
	2007	596	29.0	17.7	32.9	29.0	14.1	5.8	0.5	26.1	31.8
Russian Federation	2003	364	53.3	14.5	17.4	53.3	14.7	0.0	0.0	51.1	55.0
	2007	636	47.4	20.2	14.3	47.4	12.0	5.8	0.3	45.9	49.2
Scotland	2003	290	49.1	18.9	20.4	49.1	11.5	0.0	0.0	43.9	54.4
	2007	582	49.2	16.5	16.5	49.2	14.9	2.9	0.0	50.3	48.0
Serbia	2003	322	32.2	13.4	35.6	32.2	18.7	0.0	0.0	34.6	29.9
	2007	576	28.5	12.6	30.5	28.5	17.4	11.0	0.0	25.8	30.9
Singapore	2003	489	64.4	16.8	10.8	64.4	8.0	0.0	0.0	66.1	62.8
	2007	653	58.7	17.0	11.7	58.7	11.9	0.6	0.0	59.5	58.0
Slovenia	2003	285	47.1	14.4	20.0	47.1	18.6	0.0	0.0	52.1	42.2
	2007	560	57.7	11.0	15.8	57.7	12.8	2.7	0.0	56.7	58.8
Sweden	2003	341	47.1	14.5	26.2	47.1	12.2	0.0	0.0	44.0	50.0
	2007	723	42.1	11.2	22.2	42.1	17.9	6.5	0.0	42.6	41.7
Tunisia	2003	343	20.5	15.3	31.7	20.5	32.5	0.0	0.0	20.0	21.0
	2007	586	30.1	17.4	29.0	30.1	16.1	7.0	0.5	23.6	37.0
United States	2003	747	48.9	21.5	16.1	48.9	13.4	0.0	0.0	51.1	46.5
	2007	1054	54.1	17.9	13.2	54.1	12.9	1.7	0.2	54.8	53.4
International Avg.	2003	375	44.5	15.5	23.1	44.5	16.9	0.0	0.0	44.3	44.7
	2007	625	44.9	14.3	20.1	44.9	15.6	4.7	0.3	45.3	44.5
Basque Country, Spain	2003	196	38.7	15.0	31.0	38.7	15.2	0.0	0.0	35.0	41.9
	2007	328	35.7	15.6	27.7	35.7	15.9	5.1	0.0	35.9	35.6
Ontario, Canada	2003	347	50.0	19.5	14.8	50.0	15.6	0.0	0.0	48.5	51.5
	2007	485	45.6	17.1	19.0	45.6	16.0	1.8	0.4	41.0	50.3
Quebec, Canada	2003	359	55.8	20.6	14.9	55.8	8.6	0.0	0.0	52.4	60.0
	2007	578	45.8	19.5	20.3	45.8	12.8	1.6	0.0	47.5	44.0

DIFF = Percent correct
 Because of missing gender information, some totals may appear inconsistent.

Science: Chemistry / Applying (S032056 - S13_05)
 Label: Sodium bicarbonate mixed in vinegar
 Type: CR Key: -

COUNTRY	Year	N	10	11	12	19	70	71	79	OMIT TED	NOT REACH ED	V1	1.GIRL %Right	2.BOY %Right
Armenia	2003	171	35.9	11.2	11.6	2.9	11.8	13.6	13.1	0.0	0.0	61.5	69.4	53.5
	2007	665	25.4	8.8	9.0	3.2	4.1	2.4	13.4	33.1	0.5	46.5	52.2	41.0
Australia	2003	351	6.5	41.3	17.8	0.0	5.6	8.5	20.3	0.0	0.0	65.6	62.0	69.3
	2007	574	6.4	34.9	15.6	0.0	5.5	11.2	18.6	7.6	0.2	57.0	51.4	62.7
Bahrain	2003	268	9.4	16.3	20.1	2.2	10.4	12.6	29.0	0.0	0.0	48.0	52.1	43.1
	2007	603	6.3	14.9	14.3	0.9	13.5	5.6	30.1	14.3	0.1	36.4	45.7	27.4
Botswana	2003	379	1.1	3.6	1.5	0.3	8.3	5.2	80.0	0.0	0.0	6.5	5.4	7.7
	2007	607	0.3	2.1	0.5	0.2	7.9	9.2	68.4	10.0	1.6	3.0	2.5	3.6
Bulgaria	2003	208	13.6	35.3	5.4	3.1	3.0	9.2	30.4	0.0	0.0	57.4	50.7	63.6
	2007	433	16.3	14.0	7.8	2.0	3.3	6.7	10.0	39.9	0.1	40.1	39.6	40.6
Chinese Taipei	2003	405	12.3	50.4	7.9	2.0	4.9	13.2	9.3	0.0	0.0	72.7	69.3	75.7
	2007	580	21.3	33.1	1.7	0.0	1.5	12.7	16.3	13.4	0.0	56.1	55.3	56.9
Cyprus	2003	231	14.1	25.9	3.8	0.9	5.7	6.2	43.4	0.0	0.0	44.7	45.0	44.3
	2007	630	3.6	9.2	5.2	0.2	11.4	3.3	32.3	34.7	0.1	18.2	18.0	18.4
Egypt	2003	528	11.9	12.5	17.3	2.4	7.8	6.7	41.5	0.0	0.0	44.1	44.3	43.9
	2007	943	16.1	3.5	8.5	0.0	9.7	8.1	43.3	10.8	0.0	28.1	31.5	24.6
England	2003	204	2.3	46.2	13.9	0.0	3.3	9.7	24.6	0.0	0.0	62.4	54.4	72.4
	2007	575	8.0	38.8	20.6	0.0	3.0	9.1	14.5	5.9	0.1	67.3	69.1	65.4
Ghana	2003	224	1.2	4.8	0.8	0.2	2.1	1.6	89.3	0.0	0.0	7.0	7.5	6.6
	2007	756	0.7	3.2	1.5	0.0	7.1	3.3	47.6	34.4	2.3	5.3	5.4	5.3
Hong Kong SAR	2003	341	6.6	42.0	7.4	0.0	8.4	19.9	15.6	0.0	0.0	56.0	49.8	62.5
	2007	495	9.8	26.7	8.3	0.6	3.9	18.1	16.2	15.6	0.7	45.5	45.8	45.1
Hungary	2003	209	10.6	43.4	7.3	0.7	2.8	19.1	16.2	0.0	0.0	62.0	61.5	62.5
	2007	591	6.3	31.4	11.6	0.0	3.4	12.8	19.6	14.8	0.0	49.3	47.1	51.8
Indonesia	2003	407	4.0	17.6	2.7	2.2	11.4	3.8	58.3	0.0	0.0	26.5	25.0	28.2
	2007	587	4.4	15.4	4.0	0.7	9.5	7.3	49.4	8.9	0.3	24.5	24.1	25.0
Iran, Islamic Rep. of	2003	337	3.4	30.7	6.7	9.5	8.0	4.0	37.6	0.0	0.0	50.3	49.5	50.9
	2007	562	3.3	19.6	10.7	0.6	9.9	7.8	38.3	9.1	0.8	34.1	37.1	31.5
Israel	2003	280	8.3	20.5	10.1	1.9	14.5	8.8	36.0	0.0	0.0	40.8	41.0	40.5
	2007	455	9.2	12.7	5.8	0.0	6.7	5.5	38.8	20.1	1.1	27.7	25.0	30.9
Italy	2003	212	15.1	26.5	10.5	2.6	6.1	6.6	32.6	0.0	0.0	54.7	47.6	62.0
	2007	622	9.6	11.5	8.6	0.8	2.4	9.3	18.7	38.7	0.4	30.5	30.5	30.4
Japan	2003	344	19.5	32.6	12.0	0.0	2.9	18.3	14.7	0.0	0.0	64.2	60.3	67.3
	2007	630	17.0	28.8	6.4	0.0	1.9	9.9	22.0	13.8	0.1	52.3	49.6	55.1
Jordan	2003	314	8.9	17.2	13.1	2.7	12.4	6.7	39.0	0.0	0.0	41.9	41.1	42.8
	2007	746	5.8	17.2	12.2	0.7	19.1	3.5	35.0	6.5	0.0	35.9	42.6	29.5
Korea, Rep. of	2003	395	11.9	22.7	13.6	0.0	3.6	4.7	43.5	0.0	0.0	48.2	50.6	46.1
	2007	608	11.6	19.7	4.8	0.0	5.4	8.6	36.7	13.2	0.0	36.2	34.6	37.7
Lebanon	2003	243	16.6	27.0	2.1	0.0	2.4	2.6	49.4	0.0	0.0	45.6	45.6	45.7
	2007	540	14.7	15.9	5.1	1.3	6.9	2.0	35.2	17.7	1.1	37.0	37.8	35.9

V1 = Percent scoring 1 or better V2 = Percent scoring 2 or better
 Percent right for boys and girls corresponds to the percent obtaining the maximum score on the item.
 Because of missing gender information, some totals may appear inconsistent.

Science: Chemistry / Applying (S032056 - S13_05)
 Label: Sodium bicarbonate mixed in vinegar
 Type: CR Key: -

COUNTRY	Year	N	10	11	12	19	70	71	79	OMIT TED	NOT REACH ED	V1	1.GIRL %Right	2.BOY %Right
Lithuania	2003	312	4.5	48.4	19.3	0.0	1.8	3.3	22.7	0.0	0.0	72.2	67.8	76.8
	2007	569	1.5	24.8	16.5	0.0	3.5	16.2	18.8	18.7	0.0	42.8	42.5	43.1
Malaysia	2003	367	5.6	21.2	10.1	0.6	7.9	12.4	42.2	0.0	0.0	37.5	38.7	36.3
	2007	641	5.7	15.9	2.2	0.5	8.1	11.7	41.8	13.3	0.7	24.3	23.9	24.8
Norway	2003	274	5.5	24.2	12.6	0.5	15.1	14.5	27.6	0.0	0.0	42.7	37.5	48.9
	2007	642	4.4	18.4	7.8	0.0	10.2	12.5	28.4	18.1	0.2	30.5	26.9	34.0
Palestinian Nat'l Auth.	2003	399	5.2	18.8	7.0	4.3	8.9	4.0	51.9	0.0	0.0	35.2	38.1	31.1
	2007	620	5.7	11.6	6.0	1.8	8.0	5.4	50.7	10.6	0.3	25.0	28.8	21.1
Romania	2003	261	18.1	21.1	5.0	0.2	3.6	12.2	39.9	0.0	0.0	44.4	41.1	47.2
	2007	597	14.3	11.5	8.2	2.5	5.3	2.7	33.0	22.0	0.5	36.5	38.0	35.2
Russian Federation	2003	291	14.8	45.7	7.9	0.8	4.4	14.0	12.5	0.0	0.0	69.1	67.5	70.1
	2007	636	14.8	32.4	3.5	0.0	1.5	12.0	17.5	18.0	0.3	50.8	45.8	56.7
Scotland	2003	260	1.9	37.2	12.4	0.4	10.5	10.0	27.6	0.0	0.0	51.8	49.1	54.8
	2007	582	2.5	27.1	12.8	0.0	5.6	11.8	26.3	13.6	0.2	42.5	42.9	42.0
Serbia	2003	211	7.0	5.8	8.3	5.3	13.3	20.1	40.3	0.0	0.0	26.3	23.7	28.9
	2007	576	3.9	6.8	8.9	0.1	5.5	12.4	25.1	37.2	0.0	19.7	17.7	21.6
Singapore	2003	463	21.2	37.8	8.6	0.0	4.3	11.5	16.5	0.0	0.0	67.6	67.3	68.0
	2007	653	21.8	21.2	11.4	0.0	6.8	13.7	20.7	4.4	0.0	54.4	53.7	55.1
Slovenia	2003	234	6.4	11.0	11.9	1.2	12.9	19.1	37.5	0.0	0.0	30.5	22.1	39.2
	2007	561	9.6	17.2	15.8	0.4	1.9	20.1	23.7	11.3	0.0	42.9	36.0	49.9
Sweden	2003	295	3.5	26.7	10.9	0.4	13.1	15.5	29.9	0.0	0.0	41.5	37.2	45.3
	2007	723	3.4	17.3	8.6	0.0	7.6	13.0	28.1	21.9	0.0	29.3	25.2	33.3
Tunisia	2003	300	4.3	13.9	2.8	0.0	17.6	6.1	55.2	0.0	0.0	21.1	17.3	24.2
	2007	586	2.6	13.8	1.2	0.4	6.7	16.0	44.9	13.7	0.8	17.9	11.6	24.7
United States	2003	712	4.9	28.5	17.6	0.7	9.2	10.5	28.7	0.0	0.0	51.6	49.6	53.8
	2007	1054	5.3	19.4	16.1	1.1	8.8	11.4	32.8	4.7	0.4	41.9	35.0	49.2
International Avg.	2003	316	9.6	26.3	9.7	1.4	7.8	10.1	35.0	0.0	0.0	47.0	45.1	48.9
	2007	626	8.8	18.1	8.5	0.5	6.5	9.6	30.2	17.3	0.4	36.0	35.5	36.6
Basque Country, Spain	2003	145	1.9	37.2	17.8	0.0	7.1	12.4	23.5	0.0	0.0	57.0	51.7	61.3
	2007	328	4.2	24.9	9.9	0.5	4.8	9.9	28.5	17.4	0.0	39.5	35.2	43.1
Ontario, Canada	2003	306	4.9	34.5	20.1	1.9	9.5	7.6	21.5	0.0	0.0	61.4	54.5	68.7
	2007	485	7.3	20.3	23.2	0.0	7.4	9.8	21.4	10.2	0.4	50.8	47.0	54.6
Quebec, Canada	2003	314	5.7	15.8	24.6	2.2	7.4	5.8	38.6	0.0	0.0	48.2	43.9	52.8
	2007	578	3.7	14.1	21.8	0.0	5.2	10.9	29.5	14.6	0.1	39.6	36.7	42.7

V1 = Percent scoring 1 or better V2 = Percent scoring 2 or better
 Percent right for boys and girls corresponds to the percent obtaining the maximum score on the item.
 Because of missing gender information, some totals may appear inconsistent.

Science: Biology / Knowing (S032087 - S13_06)
 Label: Long-term immunity against disease
 Type: MC Key: C

COUNTRY	Year	N	DIFF	A	B	C	D	OMIT TED	NOT REACH ED	1.GIRL %Right	2.BOY %Right
Armenia	2003	398	27.5	24.3	25.5	27.5	22.7	0.0	0.0	25.1	29.8
	2007	668	57.4	13.8	13.2	57.4	11.0	3.9	0.7	64.0	51.3
Australia	2003	379	61.2	7.8	14.3	61.2	16.7	0.0	0.0	62.9	59.5
	2007	573	54.8	10.0	15.3	54.8	18.0	1.6	0.2	57.6	52.0
Bahrain	2003	338	51.3	26.2	6.6	51.3	15.9	0.0	0.0	58.4	43.6
	2007	603	45.2	25.5	13.5	45.2	15.2	0.3	0.2	54.7	36.1
Botswana	2003	426	11.8	13.1	34.4	11.8	40.8	0.0	0.0	12.0	11.5
	2007	607	7.9	15.2	35.5	7.9	37.2	2.1	2.1	10.3	5.2
Bulgaria	2003	312	59.2	9.8	15.5	59.2	15.5	0.0	0.0	52.3	66.0
	2007	433	58.7	10.2	12.7	58.7	14.3	3.8	0.3	64.7	52.2
Chinese Taipei	2003	458	55.3	23.0	15.3	55.3	6.4	0.0	0.0	53.5	57.0
	2007	580	50.4	29.6	7.9	50.4	12.1	0.0	0.0	39.3	60.2
Cyprus	2003	339	55.1	6.6	19.3	55.1	19.0	0.0	0.0	59.8	50.9
	2007	630	51.6	7.4	19.6	51.6	20.9	0.3	0.1	52.2	51.0
Egypt	2003	576	24.5	25.7	25.4	24.5	24.3	0.0	0.0	21.7	26.9
	2007	937	11.1	13.3	41.2	11.1	33.9	0.6	0.0	10.8	11.4
England	2003	219	65.5	11.4	8.7	65.5	14.3	0.0	0.0	64.1	67.4
	2007	575	59.3	15.6	9.1	59.3	15.6	0.3	0.1	56.3	62.5
Ghana	2003	435	11.0	11.8	37.0	11.0	40.2	0.0	0.0	14.1	8.4
	2007	756	9.1	17.1	35.1	9.1	34.7	1.6	2.5	10.4	8.1
Hong Kong SAR	2003	404	51.9	21.0	4.1	51.9	23.1	0.0	0.0	47.5	56.4
	2007	495	48.0	19.8	6.6	48.0	24.2	0.7	0.7	42.5	53.4
Hungary	2003	258	35.6	13.6	33.3	35.6	17.4	0.0	0.0	34.1	37.4
	2007	591	37.3	12.0	33.5	37.3	16.0	1.2	0.0	40.2	33.9
Indonesia	2003	480	17.3	31.0	25.3	17.3	26.4	0.0	0.0	15.4	19.4
	2007	587	16.4	28.9	32.9	16.4	20.8	0.5	0.5	18.0	14.9
Iran, Islamic Rep. of	2003	404	64.0	10.8	9.2	64.0	16.0	0.0	0.0	70.9	59.3
	2007	562	64.8	8.0	10.2	64.8	15.9	0.5	0.8	68.0	62.0
Israel	2003	346	67.9	8.3	14.4	67.9	9.5	0.0	0.0	70.1	65.5
	2007	455	64.1	6.7	12.5	64.1	13.0	2.6	1.1	68.5	59.1
Italy	2003	348	78.5	8.6	7.7	78.5	5.2	0.0	0.0	75.5	82.1
	2007	620	76.3	7.2	7.3	76.3	8.2	0.6	0.4	76.4	76.2
Japan	2003	405	50.1	28.0	8.0	50.1	13.9	0.0	0.0	46.1	53.6
	2007	630	51.5	26.6	7.0	51.5	14.4	0.4	0.1	48.5	54.6
Jordan	2003	372	21.9	21.2	24.5	21.9	32.4	0.0	0.0	24.9	18.9
	2007	746	22.1	22.4	24.5	22.1	29.9	1.0	0.0	20.7	23.5
Korea, Rep. of	2003	443	32.6	39.4	6.4	32.6	21.7	0.0	0.0	29.7	35.2
	2007	608	36.0	38.9	7.9	36.0	17.0	0.2	0.0	36.0	35.9
Lebanon	2003	307	53.5	19.1	10.3	53.5	17.0	0.0	0.0	56.7	49.0
	2007	531	53.4	19.9	13.1	53.4	10.7	1.4	1.6	54.1	52.6

DIFF = Percent correct
 Because of missing gender information, some totals may appear inconsistent.

Science: Biology / Knowing (S032087 - S13_06)
 Label: Long-term immunity against disease
 Type: MC Key: C

COUNTRY	Year	N	DIFF	A	B	C	D	OMIT TED	NOT REACH ED	1.GIRL %Right	2.BOY %Right
Lithuania	2003	380	21.9	8.8	41.5	21.9	27.9	0.0	0.0	21.6	22.2
	2007	555	21.6	8.2	39.2	21.6	30.8	0.2	0.0	18.8	24.5
Malaysia	2003	440	11.1	47.5	21.1	11.1	20.2	0.0	0.0	11.2	11.0
	2007	641	13.2	38.7	26.5	13.2	20.0	0.6	0.8	12.7	13.8
Norway	2003	336	65.6	14.4	10.5	65.6	9.4	0.0	0.0	67.1	64.2
	2007	642	63.7	15.8	9.5	63.7	8.6	2.1	0.4	59.0	68.2
Palestinian Nat'l Auth.	2003	444	19.2	34.7	21.3	19.2	24.7	0.0	0.0	19.2	19.2
	2007	620	17.3	32.4	18.2	17.3	30.7	1.2	0.3	19.1	15.4
Romania	2003	341	42.3	13.2	8.5	42.3	36.0	0.0	0.0	48.4	36.8
	2007	597	33.9	10.4	13.1	33.9	40.0	2.1	0.5	31.9	35.7
Russian Federation	2003	380	34.5	6.4	47.6	34.5	11.5	0.0	0.0	32.4	36.2
	2007	636	35.4	4.6	50.2	35.4	7.6	1.9	0.3	35.9	34.9
Scotland	2003	294	50.6	11.8	18.4	50.6	19.2	0.0	0.0	50.0	51.2
	2007	582	39.7	11.2	21.7	39.7	25.6	1.5	0.4	42.7	36.4
Serbia	2003	360	57.2	6.9	18.1	57.2	17.9	0.0	0.0	61.5	53.0
	2007	571	60.7	4.3	15.9	60.7	18.1	1.0	0.0	65.2	56.5
Singapore	2003	495	48.3	25.4	12.9	48.3	13.4	0.0	0.0	46.6	50.0
	2007	653	44.8	20.5	20.7	44.8	13.9	0.2	0.0	38.3	51.2
Slovenia	2003	294	54.5	4.7	25.6	54.5	15.2	0.0	0.0	49.6	59.4
	2007	562	50.9	10.5	32.1	50.9	4.6	1.9	0.0	49.6	52.3
Sweden	2003	356	77.2	7.7	4.2	77.2	10.9	0.0	0.0	70.6	83.4
	2007	723	75.6	7.9	5.8	75.6	9.3	1.2	0.2	75.5	75.8
Tunisia	2003	389	76.0	3.5	11.1	76.0	9.5	0.0	0.0	75.5	76.3
	2007	586	67.0	4.1	12.0	67.0	11.4	4.7	0.8	66.4	67.7
United States	2003	746	51.7	13.8	15.6	51.7	18.8	0.0	0.0	49.6	54.1
	2007	1054	51.2	15.7	12.7	51.2	19.3	0.6	0.5	49.3	53.2
International Avg.	2003	391	45.6	17.0	18.2	45.6	19.2	0.0	0.0	45.4	45.9
	2007	625	44.0	16.1	19.3	44.0	18.9	1.3	0.5	44.2	43.7
Basque Country, Spain	2003	204	62.1	8.4	8.9	62.1	20.6	0.0	0.0	60.9	63.1
	2007	328	60.7	5.5	10.5	60.7	22.6	0.7	0.0	58.1	62.9
Ontario, Canada	2003	349	50.1	13.9	18.1	50.1	17.9	0.0	0.0	48.7	51.5
	2007	485	50.5	12.0	12.5	50.5	22.4	2.2	0.4	47.9	53.1
Quebec, Canada	2003	362	55.0	8.1	15.5	55.0	21.4	0.0	0.0	51.8	58.7
	2007	578	52.2	8.3	9.4	52.2	27.4	2.2	0.5	47.9	56.9

DIFF = Percent correct
 Because of missing gender information, some totals may appear inconsistent.

Science: Physics / Applying (S032279 - S13_07)
 Label: Why bottle collapses in the valley
 Type: MC Key: D

COUNTRY	Year	N	DIFF	A	B	C	D	OMIT TED	NOT REACH ED	1.GIRL %Right	2.BOY %Right
Armenia	2003	348	36.3	17.8	15.9	30.0	36.3	0.0	0.0	42.6	30.4
	2007	667	33.9	6.4	14.4	35.8	33.9	8.7	0.7	32.3	35.4
Australia	2003	381	33.8	4.0	9.8	52.4	33.8	0.0	0.0	34.0	33.6
	2007	574	30.8	6.0	9.1	52.4	30.8	1.5	0.2	30.1	31.4
Bahrain	2003	340	28.5	16.6	28.2	26.6	28.5	0.0	0.0	29.5	27.4
	2007	603	26.5	16.8	24.2	31.2	26.5	1.0	0.2	28.5	24.7
Botswana	2003	421	21.9	21.7	31.6	24.8	21.9	0.0	0.0	20.3	23.9
	2007	607	17.2	22.7	36.8	16.8	17.2	3.5	3.0	17.8	16.5
Bulgaria	2003	304	28.7	8.7	15.7	46.8	28.7	0.0	0.0	27.2	30.2
	2007	433	26.3	7.1	17.7	42.7	26.3	6.0	0.3	29.2	23.1
Chinese Taipei	2003	458	44.1	2.4	4.6	48.9	44.1	0.0	0.0	39.9	48.1
	2007	580	46.7	4.5	5.3	43.5	46.7	0.0	0.0	43.3	49.7
Cyprus	2003	336	29.7	8.7	16.9	44.8	29.7	0.0	0.0	34.3	25.6
	2007	630	25.6	12.3	14.7	45.5	25.6	1.8	0.1	26.2	25.0
Egypt	2003	576	22.5	17.1	33.1	27.3	22.5	0.0	0.0	24.9	20.5
	2007	939	20.4	19.9	33.9	23.9	20.4	1.8	0.0	20.6	20.2
England	2003	219	31.0	4.4	9.4	55.1	31.0	0.0	0.0	31.2	30.9
	2007	575	32.9	4.4	7.7	54.3	32.9	0.6	0.1	30.3	35.6
Ghana	2003	431	22.2	19.9	38.4	19.5	22.2	0.0	0.0	19.7	24.3
	2007	756	21.8	18.1	33.4	19.8	21.8	4.2	2.7	25.1	19.3
Hong Kong SAR	2003	403	53.2	3.7	4.0	39.1	53.2	0.0	0.0	50.9	55.6
	2007	495	53.1	4.5	5.1	36.0	53.1	0.6	0.7	51.5	54.6
Hungary	2003	262	35.4	1.7	9.5	53.4	35.4	0.0	0.0	29.8	41.5
	2007	591	33.5	5.2	13.8	46.5	33.5	1.0	0.0	28.6	38.9
Indonesia	2003	477	21.9	19.1	22.0	36.9	21.9	0.0	0.0	25.4	18.0
	2007	586	26.1	19.1	21.8	31.3	26.1	1.2	0.5	25.0	27.2
Iran, Islamic Rep. of	2003	400	35.0	16.1	16.3	32.5	35.0	0.0	0.0	34.6	35.2
	2007	562	32.0	18.2	17.5	29.6	32.0	1.8	0.8	32.1	32.0
Israel	2003	342	45.8	5.8	11.7	36.7	45.8	0.0	0.0	42.1	49.8
	2007	454	29.6	9.6	15.1	39.4	29.6	4.8	1.4	29.1	30.2
Italy	2003	344	34.3	6.1	7.9	51.6	34.3	0.0	0.0	29.7	39.9
	2007	621	35.4	7.7	9.4	45.3	35.4	1.8	0.4	37.0	34.0
Japan	2003	406	50.2	2.5	3.5	43.8	50.2	0.0	0.0	49.3	51.0
	2007	630	57.9	1.7	3.9	36.0	57.9	0.4	0.1	53.5	62.4
Jordan	2003	370	41.8	9.9	22.1	26.3	41.8	0.0	0.0	44.2	39.4
	2007	746	35.7	14.3	22.6	26.4	35.7	0.8	0.2	35.7	35.7
Korea, Rep. of	2003	444	39.2	4.1	4.1	52.5	39.2	0.0	0.0	38.3	40.0
	2007	608	43.2	4.2	4.3	48.4	43.2	0.0	0.0	40.7	45.6
Lebanon	2003	295	26.8	10.8	25.5	36.9	26.8	0.0	0.0	27.6	25.5
	2007	530	24.4	11.5	26.1	28.8	24.4	7.6	1.6	23.4	25.6

DIFF = Percent correct
 Because of missing gender information, some totals may appear inconsistent.

Science: Physics / Applying (S032279 - S13_07)
 Label: Why bottle collapses in the valley
 Type: MC Key: D

COUNTRY	Year	N	DIFF	A	B	C	D	OMIT TED	NOT REACH ED	1.GIRL %Right	2.BOY %Right
Lithuania	2003	385	40.6	2.8	6.5	50.1	40.6	0.0	0.0	41.8	39.4
	2007	566	32.1	5.6	8.6	52.8	32.1	0.9	0.0	31.0	33.2
Malaysia	2003	439	40.3	8.8	14.9	36.1	40.3	0.0	0.0	38.9	41.7
	2007	641	37.0	12.7	16.0	32.7	37.0	0.6	1.0	38.7	35.2
Norway	2003	335	35.0	3.7	9.5	51.8	35.0	0.0	0.0	29.6	40.7
	2007	642	36.8	5.1	5.8	49.6	36.8	2.3	0.4	34.2	39.3
Palestinian Nat'l Auth.	2003	445	27.1	19.8	27.7	25.4	27.1	0.0	0.0	27.3	26.9
	2007	620	27.1	18.8	27.1	25.3	27.1	1.2	0.5	29.9	24.1
Romania	2003	341	22.8	10.4	21.2	45.7	22.8	0.0	0.0	24.1	21.5
	2007	594	22.8	15.7	20.7	39.0	22.8	1.2	0.5	19.6	25.8
Russian Federation	2003	374	39.6	6.8	9.3	44.2	39.6	0.0	0.0	32.6	45.2
	2007	636	35.2	7.4	11.8	44.0	35.2	1.5	0.3	31.9	39.1
Scotland	2003	291	36.3	5.7	9.7	48.3	36.3	0.0	0.0	38.0	34.6
	2007	582	31.0	5.2	8.9	53.1	31.0	1.3	0.5	29.8	32.4
Serbia	2003	351	22.2	7.9	18.5	51.4	22.2	0.0	0.0	19.8	24.5
	2007	568	18.8	10.6	15.2	54.2	18.8	1.2	0.0	19.0	18.6
Singapore	2003	494	32.1	5.2	14.8	47.9	32.1	0.0	0.0	34.3	29.9
	2007	653	34.1	6.7	12.5	46.7	34.1	0.0	0.0	31.3	36.9
Slovenia	2003	302	45.9	4.5	9.9	39.7	45.9	0.0	0.0	40.5	51.3
	2007	562	50.2	3.2	8.0	36.7	50.2	1.8	0.2	46.0	54.5
Sweden	2003	355	45.8	3.3	4.8	46.1	45.8	0.0	0.0	38.0	53.2
	2007	723	42.4	2.6	5.2	48.0	42.4	1.7	0.2	38.9	45.7
Tunisia	2003	386	30.9	10.7	27.0	31.5	30.9	0.0	0.0	33.6	28.4
	2007	586	31.8	8.4	15.1	37.4	31.8	6.1	1.1	33.3	30.1
United States	2003	749	39.1	4.6	9.3	47.0	39.1	0.0	0.0	38.9	39.3
	2007	1054	34.9	5.1	9.1	49.4	34.9	1.0	0.5	30.4	39.6
International Avg.	2003	388	34.5	9.0	15.6	41.0	34.5	0.0	0.0	33.7	35.4
	2007	625	32.9	9.7	15.2	39.5	32.9	2.1	0.6	31.9	34.0
Basque Country, Spain	2003	203	26.7	10.6	13.0	49.6	26.7	0.0	0.0	25.0	28.2
	2007	328	29.8	12.1	14.4	42.7	29.8	1.0	0.0	31.6	28.2
Ontario, Canada	2003	349	36.1	5.1	8.8	49.9	36.1	0.0	0.0	29.1	43.2
	2007	485	35.8	3.7	7.0	49.7	35.8	2.8	1.0	29.2	42.4
Quebec, Canada	2003	363	41.9	4.5	10.8	42.8	41.9	0.0	0.0	38.5	45.9
	2007	578	29.8	5.6	10.4	51.6	29.8	2.0	0.6	24.3	35.7

DIFF = Percent correct
 Because of missing gender information, some totals may appear inconsistent.

Science: Physics / Applying (S032238 - S13_08)

Label: Gaps between metal rail spans

Type: MC Key: A

COUNTRY	Year	N	DIFF	A	B	C	D	OMIT TED	NOT REACH ED	1.GIRL %Right	2.BOY %Right
Armenia	2003	375	29.9	29.9	11.2	15.2	43.7	0.0	0.0	33.9	26.0
	2007	669	47.5	47.5	11.4	5.5	27.7	7.0	0.8	48.4	46.7
Australia	2003	383	62.0	62.0	5.2	13.6	19.2	0.0	0.0	56.8	67.4
	2007	574	52.6	52.6	3.1	15.2	28.0	0.9	0.2	46.5	58.9
Bahrain	2003	336	30.2	30.2	5.1	30.1	34.5	0.0	0.0	26.4	34.3
	2007	603	42.1	42.1	14.8	33.0	9.5	0.5	0.2	45.3	39.0
Botswana	2003	423	19.3	19.3	10.4	32.8	37.5	0.0	0.0	19.2	19.5
	2007	607	21.9	21.9	7.7	29.0	33.9	3.2	4.3	20.8	23.2
Bulgaria	2003	304	40.5	40.5	7.9	16.5	35.0	0.0	0.0	34.2	46.5
	2007	433	47.4	47.4	8.4	13.0	27.9	3.2	0.3	43.1	52.1
Chinese Taipei	2003	459	77.5	77.5	2.1	15.6	4.7	0.0	0.0	76.9	78.1
	2007	580	82.4	82.4	2.4	11.7	3.5	0.0	0.0	81.0	83.6
Cyprus	2003	340	57.8	57.8	14.9	9.7	17.6	0.0	0.0	57.8	57.7
	2007	630	57.5	57.5	13.0	12.7	15.1	1.6	0.1	55.2	59.9
Egypt	2003	577	36.7	36.7	10.1	20.1	33.1	0.0	0.0	37.6	35.9
	2007	936	43.6	43.6	16.6	14.4	23.7	1.7	0.0	37.0	50.4
England	2003	221	48.8	48.8	6.9	14.1	30.1	0.0	0.0	43.0	55.9
	2007	575	51.0	51.0	6.4	16.2	25.6	0.6	0.1	41.7	61.0
Ghana	2003	436	13.7	13.7	14.6	42.2	29.5	0.0	0.0	11.5	15.7
	2007	756	16.9	16.9	14.5	30.0	32.8	3.0	2.8	10.3	21.8
Hong Kong SAR	2003	405	74.1	74.1	4.2	8.5	13.2	0.0	0.0	69.2	79.0
	2007	495	68.8	68.8	3.8	8.7	17.2	0.7	0.7	67.6	69.9
Hungary	2003	265	66.2	66.2	14.0	8.8	11.0	0.0	0.0	59.5	73.7
	2007	591	65.7	65.7	8.2	9.1	15.2	1.8	0.0	63.4	68.4
Indonesia	2003	483	53.1	53.1	4.6	24.1	18.2	0.0	0.0	48.5	58.3
	2007	586	51.4	51.4	8.5	26.4	12.4	0.7	0.6	50.2	52.6
Iran, Islamic Rep. of	2003	400	44.2	44.2	17.3	20.6	17.9	0.0	0.0	46.3	42.9
	2007	562	28.3	28.3	16.3	27.7	25.5	1.4	0.8	25.7	30.4
Israel	2003	341	28.0	28.0	4.9	43.0	24.2	0.0	0.0	19.8	36.7
	2007	454	28.6	28.6	4.1	34.7	28.3	2.4	2.0	25.8	31.8
Italy	2003	342	49.0	49.0	3.7	26.7	20.6	0.0	0.0	45.7	52.8
	2007	619	34.3	34.3	4.5	33.3	23.8	3.7	0.4	34.0	34.5
Japan	2003	406	53.3	53.3	8.2	16.5	22.0	0.0	0.0	51.0	55.3
	2007	630	56.0	56.0	10.4	11.6	21.3	0.4	0.1	47.4	65.0
Jordan	2003	368	23.0	23.0	9.3	34.1	33.6	0.0	0.0	26.5	19.6
	2007	746	47.6	47.6	9.6	17.7	23.3	1.5	0.2	53.1	42.3
Korea, Rep. of	2003	444	52.7	52.7	4.2	19.8	23.3	0.0	0.0	44.5	60.2
	2007	608	61.0	61.0	8.9	14.7	15.0	0.3	0.0	60.8	61.2
Lebanon	2003	290	31.8	31.8	13.9	24.1	30.1	0.0	0.0	29.6	34.8
	2007	533	26.9	26.9	13.7	19.3	30.5	7.8	1.8	23.8	30.7

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent.

Science: Physics / Applying (S032238 - S13_08)

Label: Gaps between metal rail spans

Type: MC Key: A

COUNTRY	Year	N	DIFF	A	B	C	D	OMIT TED	NOT REACH ED	1.GIRL %Right	2.BOY %Right
Lithuania	2003	386	51.2	51.2	7.8	25.9	15.1	0.0	0.0	51.5	50.9
	2007	567	66.3	66.3	8.9	18.0	6.8	0.0	0.0	62.8	69.9
Malaysia	2003	441	83.5	83.5	3.9	5.2	7.5	0.0	0.0	85.1	81.8
	2007	641	70.3	70.3	7.7	8.5	11.9	0.2	1.4	68.9	71.7
Norway	2003	335	51.1	51.1	5.0	30.8	13.0	0.0	0.0	49.6	52.7
	2007	642	47.0	47.0	9.7	26.2	15.2	1.5	0.4	44.8	49.1
Palestinian Nat'l Auth.	2003	444	48.6	48.6	14.8	19.2	17.5	0.0	0.0	50.6	45.9
	2007	620	39.6	39.6	13.6	24.3	21.5	0.6	0.5	41.3	37.9
Romania	2003	339	46.5	46.5	6.0	14.5	33.0	0.0	0.0	39.5	52.7
	2007	595	43.7	43.7	4.9	16.3	32.0	2.6	0.5	39.9	47.3
Russian Federation	2003	371	34.2	34.2	9.0	23.1	33.6	0.0	0.0	23.3	42.7
	2007	636	30.0	30.0	6.4	27.6	33.0	2.3	0.6	27.1	33.4
Scotland	2003	294	59.8	59.8	4.3	13.0	22.9	0.0	0.0	55.0	64.6
	2007	582	54.2	54.2	7.0	13.5	23.5	1.2	0.5	55.3	52.9
Serbia	2003	359	30.0	30.0	3.5	19.1	47.5	0.0	0.0	27.2	32.7
	2007	572	21.6	21.6	4.9	27.2	44.2	2.1	0.0	18.5	24.4
Singapore	2003	495	89.5	89.5	1.2	5.3	4.0	0.0	0.0	89.5	89.5
	2007	653	81.2	81.2	3.1	8.7	7.0	0.0	0.0	81.4	81.1
Slovenia	2003	302	34.2	34.2	5.3	22.0	38.6	0.0	0.0	27.8	40.4
	2007	562	25.1	25.1	5.2	27.8	40.2	1.5	0.2	21.4	28.8
Sweden	2003	353	53.9	53.9	5.6	15.3	25.1	0.0	0.0	42.0	65.2
	2007	723	44.5	44.5	6.5	19.7	26.7	2.3	0.4	42.6	46.4
Tunisia	2003	407	19.7	19.7	4.0	34.2	42.2	0.0	0.0	15.7	23.2
	2007	586	26.9	26.9	3.2	30.9	32.4	5.0	1.6	21.1	33.2
United States	2003	745	35.6	35.6	7.4	27.1	29.9	0.0	0.0	28.9	43.1
	2007	1054	27.7	27.7	11.3	26.6	33.0	0.7	0.7	21.3	34.5
International Avg.	2003	390	46.3	46.3	7.6	20.9	25.1	0.0	0.0	43.1	49.6
	2007	625	45.7	45.7	8.4	20.0	23.3	1.9	0.7	43.3	48.3
Basque Country, Spain	2003	206	58.9	58.9	8.0	11.4	21.7	0.0	0.0	57.7	59.9
	2007	328	58.0	58.0	8.0	15.1	17.7	1.2	0.0	58.5	57.6
Ontario, Canada	2003	348	43.6	43.6	11.2	16.6	28.6	0.0	0.0	35.1	52.1
	2007	485	37.7	37.7	11.3	23.4	24.5	1.8	1.3	34.0	41.4
Quebec, Canada	2003	363	40.3	40.3	15.4	21.5	22.8	0.0	0.0	36.4	44.9
	2007	578	25.5	25.5	10.6	19.9	40.9	2.5	0.6	21.7	29.6

DIFF = Percent correct
 Because of missing gender information, some totals may appear inconsistent.

Science: Physics / Applying (S032369 - S13_09)
 Label: Sound from electric bell inside jar
 Type: CR Key: -

COUNTRY	Year	N	20	29	10	11	19	70	71	79	OMIT TED	NOT REACH ED	V1	V2	1.GIRL %Right	2.BOY %Right
Armenia	2003	157	35.0	1.0	30.3	15.0	1.5	2.2	6.0	9.0	0.0	0.0	82.8	36.0	39.7	32.0
	2007	668	13.5	4.0	17.9	5.4	2.3	1.5	1.1	15.2	38.1	0.8	43.2	17.5	18.4	16.8
Australia	2003	325	26.4	0.5	7.5	8.5	2.0	14.7	17.6	22.7	0.0	0.0	44.9	26.9	15.7	38.0
	2007	574	15.8	0.0	8.2	10.7	0.1	8.7	20.4	24.1	11.9	0.2	34.8	15.8	10.2	21.5
Bahrain	2003	265	25.7	3.4	17.0	6.3	3.6	7.9	11.8	24.3	0.0	0.0	56.1	29.1	24.7	33.9
	2007	603	20.7	1.0	6.0	10.7	2.4	9.1	8.3	22.1	19.3	0.5	40.6	21.7	29.9	13.7
Botswana	2003	366	6.1	0.3	3.6	8.0	0.7	13.5	21.5	46.4	0.0	0.0	18.6	6.4	4.8	8.3
	2007	607	5.7	0.2	5.4	7.3	0.2	6.6	14.7	40.8	14.1	5.1	18.8	5.9	4.9	7.1
Bulgaria	2003	189	14.7	1.6	23.2	23.1	8.1	3.4	3.3	22.6	0.0	0.0	70.7	16.3	18.7	13.9
	2007	433	13.0	0.1	17.7	8.2	0.1	5.1	1.6	13.0	40.9	0.3	39.1	13.1	11.6	14.7
Chinese Taipei	2003	432	60.8	0.0	11.2	12.8	0.7	4.9	2.4	7.3	0.0	0.0	85.5	60.8	56.9	64.5
	2007	580	53.1	1.1	11.0	11.1	1.9	2.8	2.2	7.4	9.5	0.0	78.2	54.2	50.1	57.8
Cyprus	2003	200	6.0	1.8	13.4	8.3	0.3	15.7	10.1	44.5	0.0	0.0	29.8	7.8	6.2	9.8
	2007	630	5.8	0.0	4.9	5.3	7.6	7.1	10.4	22.9	35.7	0.2	23.6	5.8	4.9	6.7
Egypt	2003	544	34.9	2.5	17.0	7.7	4.5	2.6	2.0	28.7	0.0	0.0	66.6	37.4	40.0	35.3
	2007	943	13.2	0.0	9.1	12.1	0.0	11.8	3.9	33.6	16.3	0.0	34.4	13.2	13.4	13.0
England	2003	207	35.2	0.0	7.7	23.0	0.2	8.4	18.1	7.5	0.0	0.0	66.0	35.2	31.9	39.4
	2007	575	32.1	0.0	10.4	22.5	0.1	4.7	11.7	13.7	4.6	0.1	65.1	32.1	26.1	38.5
Ghana	2003	221	3.5	0.0	1.6	2.5	3.7	4.8	8.6	75.3	0.0	0.0	11.3	3.5	6.3	1.4
	2007	756	2.2	0.1	3.3	2.9	0.0	4.1	4.3	34.6	45.7	2.8	8.5	2.3	1.7	2.7
Hong Kong SAR	2003	363	51.7	0.0	12.5	13.2	1.4	7.8	4.6	8.8	0.0	0.0	78.8	51.7	46.1	57.6
	2007	495	44.9	0.2	4.8	20.1	0.4	4.4	2.0	12.5	10.0	0.7	70.4	45.1	43.4	46.8
Hungary	2003	216	42.3	0.0	7.8	14.8	1.0	9.7	7.5	16.9	0.0	0.0	65.9	42.3	39.8	45.0
	2007	591	31.8	0.0	11.4	5.8	0.1	5.5	7.8	16.2	21.4	0.0	49.1	31.8	32.0	31.6
Indonesia	2003	364	7.8	1.8	9.7	5.4	0.3	6.2	30.2	38.6	0.0	0.0	24.9	9.6	11.3	7.7
	2007	586	5.7	0.0	7.4	5.4	0.6	3.7	20.1	43.0	13.2	0.9	19.0	5.7	4.7	6.7
Iran, Islamic Rep. of	2003	276	12.9	10.6	11.7	16.3	2.1	6.8	11.5	28.0	0.0	0.0	53.7	23.5	21.0	25.2
	2007	562	8.4	0.2	8.5	16.8	0.5	8.5	7.7	22.3	26.4	0.8	34.4	8.6	10.7	6.8
Israel	2003	257	18.2	2.6	17.0	21.8	0.8	11.6	7.3	20.7	0.0	0.0	60.4	20.8	14.7	27.1
	2007	454	11.5	0.3	16.8	9.1	0.2	4.9	4.0	21.5	29.7	2.0	37.9	11.8	10.0	13.8
Italy	2003	179	26.5	2.3	10.2	13.3	1.6	6.1	10.4	29.5	0.0	0.0	54.0	28.9	25.1	33.3
	2007	622	13.2	0.8	7.9	6.4	0.2	3.7	7.7	18.1	41.6	0.4	28.4	13.9	12.8	15.0
Japan	2003	363	59.0	0.0	2.3	16.4	0.8	5.6	13.2	2.7	0.0	0.0	78.5	59.0	56.9	60.8
	2007	630	58.1	0.0	4.9	9.2	0.4	2.4	6.1	10.8	8.1	0.1	72.5	58.1	54.2	62.3
Jordan	2003	320	38.7	3.3	9.6	8.7	2.2	3.8	1.8	31.8	0.0	0.0	62.5	42.0	44.0	39.8
	2007	746	39.4	2.6	6.7	5.8	1.4	6.9	5.7	20.1	10.9	0.4	56.0	42.1	49.7	34.7
Korea, Rep. of	2003	405	40.1	0.2	15.2	22.5	0.0	0.5	3.0	18.5	0.0	0.0	78.0	40.3	35.5	44.8
	2007	608	42.4	0.0	4.1	14.5	0.0	7.9	3.4	18.4	9.3	0.0	61.0	42.4	35.8	49.0
Lebanon	2003	166	18.3	1.2	21.1	7.1	1.8	20.5	0.0	30.0	0.0	0.0	49.5	19.5	19.9	18.7
	2007	540	13.0	3.3	7.0	3.8	0.6	4.3	3.8	29.6	32.7	2.0	27.7	16.3	17.2	15.2

V1 = Percent scoring 1 or better V2 = Percent scoring 2 or better
 Percent right for boys and girls corresponds to the percent obtaining the maximum score on the item.
 Because of missing gender information, some totals may appear inconsistent.

Science: Physics / Applying (S032369 - S13_09)
 Label: Sound from electric bell inside jar
 Type: CR Key: -

COUNTRY	Year	N	20	29	10	11	19	70	71	79	OMIT TED	NOT REACH ED	V1	V2	1.GIRL %Right	2.BOY %Right
Lithuania	2003	325	35.8	0.0	16.7	27.9	0.0	2.2	5.1	12.3	0.0	0.0	80.4	35.8	34.4	37.2
	2007	569	34.1	0.3	18.9	15.6	0.5	6.8	2.4	8.3	13.1	0.0	69.3	34.4	31.9	36.9
Malaysia	2003	385	32.6	0.5	8.7	17.8	0.2	8.5	14.4	17.4	0.0	0.0	59.7	33.0	38.3	27.4
	2007	641	11.2	0.7	7.1	13.3	1.3	10.8	16.6	27.5	10.1	1.4	33.6	11.9	12.0	11.7
Norway	2003	251	18.1	0.0	14.6	10.2	0.3	17.7	12.5	26.6	0.0	0.0	43.2	18.1	16.2	20.3
	2007	642	12.9	0.0	11.6	12.7	0.0	10.3	9.3	23.0	19.7	0.5	37.3	12.9	10.3	15.4
Palestinian Nat'l Auth.	2003	399	32.4	3.2	7.1	11.2	2.6	7.3	8.4	27.9	0.0	0.0	56.5	35.5	38.4	31.6
	2007	621	26.9	1.6	6.2	10.0	1.7	3.3	6.9	32.6	10.3	0.5	46.4	28.5	37.4	19.2
Romania	2003	238	14.7	2.6	15.9	9.2	1.0	4.9	23.4	28.3	0.0	0.0	43.4	17.3	15.3	19.1
	2007	597	12.4	0.1	9.3	4.9	1.7	5.4	5.9	33.9	25.9	0.5	28.4	12.5	10.2	14.6
Russian Federation	2003	286	26.9	0.2	20.1	29.7	0.1	5.4	5.6	11.9	0.0	0.0	77.1	27.2	26.5	27.7
	2007	636	19.5	0.0	19.3	20.6	0.0	5.3	3.3	10.5	20.5	1.0	59.4	19.5	16.1	23.3
Scotland	2003	259	22.3	0.0	7.5	20.8	0.0	13.0	20.5	16.0	0.0	0.0	50.6	22.3	19.7	25.4
	2007	582	21.9	0.0	11.4	15.3	0.9	7.0	13.3	16.4	13.1	0.7	49.6	21.9	22.5	21.3
Serbia	2003	253	11.8	3.7	28.3	22.3	7.1	1.7	6.5	18.8	0.0	0.0	73.0	15.5	11.4	19.1
	2007	576	15.4	1.8	14.5	14.0	0.9	3.7	5.2	12.1	32.5	0.0	46.5	17.1	18.8	15.6
Singapore	2003	456	47.2	0.0	4.4	10.5	0.9	7.6	14.5	14.9	0.0	0.0	63.0	47.2	46.9	47.5
	2007	653	37.0	0.0	10.0	6.4	0.1	5.9	14.1	19.4	7.0	0.0	53.6	37.0	32.0	42.0
Slovenia	2003	231	10.3	0.8	18.5	26.3	0.6	12.7	9.8	21.0	0.0	0.0	56.4	11.1	5.5	16.9
	2007	562	29.4	0.1	21.1	18.1	1.1	1.4	5.4	13.9	9.2	0.2	69.9	29.5	27.9	31.0
Sweden	2003	292	23.2	0.0	10.6	19.1	0.0	10.4	12.8	23.8	0.0	0.0	53.0	23.2	24.8	21.8
	2007	723	14.3	0.2	6.7	8.1	0.6	6.8	12.9	24.8	25.1	0.6	29.9	14.5	11.7	17.2
Tunisia	2003	335	16.2	0.0	22.0	12.2	1.9	15.8	7.0	24.8	0.0	0.0	52.3	16.2	19.0	13.7
	2007	586	9.6	0.9	12.4	15.2	0.3	14.4	10.2	18.0	17.0	1.8	38.5	10.6	6.3	15.2
United States	2003	683	18.6	0.7	6.0	8.7	2.0	15.2	19.4	29.5	0.0	0.0	35.9	19.3	18.7	19.9
	2007	1054	13.0	0.8	11.2	10.4	0.1	10.0	17.7	28.7	7.4	0.8	35.4	13.7	9.1	18.7
International Avg.	2003	309	26.5	1.4	13.0	14.6	1.6	8.5	10.6	23.9	0.0	0.0	57.1	27.8	26.5	29.2
	2007	626	21.2	0.6	10.1	10.8	0.9	6.2	8.2	21.5	19.7	0.8	43.7	21.9	20.9	22.9
Basque Country, Spain	2003	142	28.5	2.0	9.3	2.7	0.0	5.8	10.4	41.2	0.0	0.0	42.5	30.5	23.6	36.1
	2007	328	17.1	0.3	7.3	9.6	1.3	4.1	13.2	22.2	24.9	0.0	35.6	17.3	14.8	19.5
Ontario, Canada	2003	289	21.9	0.7	7.2	19.2	0.5	10.1	20.8	19.6	0.0	0.0	49.5	22.7	14.4	31.2
	2007	485	16.3	0.0	6.9	9.7	0.3	10.8	18.5	21.0	15.2	1.3	33.1	16.3	14.5	18.1
Quebec, Canada	2003	298	23.4	1.1	11.3	16.8	1.0	13.7	7.5	25.3	0.0	0.0	53.6	24.5	21.4	28.0
	2007	578	11.1	0.5	7.6	11.7	0.0	8.5	11.5	29.5	18.9	0.6	30.9	11.6	8.3	15.1

V1 = Percent scoring 1 or better V2 = Percent scoring 2 or better
 Percent right for boys and girls corresponds to the percent obtaining the maximum score on the item.
 Because of missing gender information, some totals may appear inconsistent.

Science: Earth Science / Knowing (S032160 - S13_10)
 Label: Difference between planets and moons
 Type: MC Key: C

COUNTRY	Year	N	DIFF	A	B	C	D	OMIT TED	NOT REACH ED	1.GIRL %Right	2.BOY %Right
Armenia	2003	351	56.9	17.1	11.8	56.9	14.2	0.0	0.0	58.2	55.6
	2007	668	60.5	6.0	11.3	60.5	10.6	10.5	1.2	57.7	63.0
Australia	2003	379	74.6	7.1	12.3	74.6	6.1	0.0	0.0	73.3	75.9
	2007	574	70.2	4.1	17.8	70.2	6.8	0.5	0.7	72.8	67.4
Bahrain	2003	338	54.0	5.9	20.1	54.0	20.1	0.0	0.0	55.8	52.0
	2007	603	61.4	6.2	11.8	61.4	18.6	1.3	0.8	63.8	59.0
Botswana	2003	423	32.6	21.3	22.3	32.6	23.8	0.0	0.0	27.7	38.3
	2007	604	28.1	16.9	25.7	28.1	20.4	2.0	6.8	27.6	28.8
Bulgaria	2003	307	61.8	4.1	9.1	61.8	24.9	0.0	0.0	65.0	58.8
	2007	433	61.8	7.5	7.7	61.8	17.6	5.0	0.4	66.6	56.6
Chinese Taipei	2003	457	76.1	5.7	10.5	76.1	7.8	0.0	0.0	78.3	74.0
	2007	580	69.2	7.6	13.6	69.2	9.2	0.3	0.0	70.8	67.9
Cyprus	2003	336	58.2	10.1	9.7	58.2	22.0	0.0	0.0	59.2	57.3
	2007	630	61.3	10.8	9.7	61.3	16.9	1.1	0.2	67.7	54.9
Egypt	2003	577	55.0	6.1	17.3	55.0	21.6	0.0	0.0	57.1	53.3
	2007	937	58.6	3.8	13.2	58.6	22.0	2.0	0.4	57.6	59.7
England	2003	225	72.7	6.5	18.1	72.7	2.8	0.0	0.0	76.6	67.7
	2007	575	77.0	4.9	12.2	77.0	4.6	1.2	0.1	75.4	78.7
Ghana	2003	428	35.2	22.6	24.6	35.2	17.5	0.0	0.0	32.2	37.9
	2007	756	36.5	20.4	18.8	36.5	16.7	4.3	3.4	37.0	36.2
Hong Kong SAR	2003	403	80.0	1.8	4.9	80.0	13.4	0.0	0.0	79.8	80.2
	2007	495	75.1	4.8	7.6	75.1	10.4	1.4	0.7	79.2	71.0
Hungary	2003	263	72.1	5.8	15.9	72.1	6.2	0.0	0.0	71.1	73.3
	2007	591	66.8	9.0	17.1	66.8	5.6	1.5	0.0	65.9	67.9
Indonesia	2003	474	44.8	5.2	30.7	44.8	19.3	0.0	0.0	47.1	42.2
	2007	587	41.7	5.7	34.4	41.7	16.1	1.1	1.1	43.7	39.8
Iran, Islamic Rep. of	2003	399	54.1	6.2	21.4	54.1	18.3	0.0	0.0	56.1	52.8
	2007	562	47.7	6.9	25.5	47.7	17.6	1.2	1.0	49.6	46.0
Israel	2003	336	64.2	7.8	15.8	64.2	12.2	0.0	0.0	62.3	66.2
	2007	454	55.6	6.9	18.9	55.6	12.7	3.7	2.2	56.5	54.6
Italy	2003	342	70.7	9.0	8.8	70.7	11.6	0.0	0.0	73.2	67.6
	2007	618	63.8	5.9	12.9	63.8	15.2	1.7	0.4	68.0	59.8
Japan	2003	403	49.8	10.2	23.3	49.8	16.8	0.0	0.0	48.0	51.3
	2007	630	52.4	9.8	21.6	52.4	15.8	0.3	0.1	49.4	55.5
Jordan	2003	368	50.5	6.0	19.4	50.5	24.1	0.0	0.0	60.3	40.7
	2007	746	56.6	5.0	13.8	56.6	23.2	0.8	0.6	57.0	56.3
Korea, Rep. of	2003	440	78.0	4.4	13.8	78.0	3.9	0.0	0.0	78.9	77.1
	2007	608	84.0	1.7	11.3	84.0	2.9	0.0	0.0	81.4	86.6
Lebanon	2003	303	45.5	9.6	22.3	45.5	22.6	0.0	0.0	44.9	46.5
	2007	527	41.8	10.7	20.1	41.8	18.8	6.1	2.5	41.6	42.1

DIFF = Percent correct
 Because of missing gender information, some totals may appear inconsistent.

Science: Earth Science / Knowing (S032160 - S13_10)
 Label: Difference between planets and moons
 Type: MC Key: C

COUNTRY	Year	N	DIFF	A	B	C	D	OMIT TED	NOT REACH ED	1.GIRL %Right	2.BOY %Right
Lithuania	2003	381	78.8	1.4	6.9	78.8	12.9	0.0	0.0	84.2	73.4
	2007	562	73.0	2.7	8.6	73.0	14.9	0.8	0.0	71.2	74.9
Malaysia	2003	440	58.2	13.1	17.5	58.2	11.2	0.0	0.0	57.1	59.4
	2007	641	57.8	11.0	20.8	57.8	8.2	0.7	1.4	57.2	58.5
Norway	2003	332	76.2	6.7	11.8	76.2	5.3	0.0	0.0	76.4	76.0
	2007	642	68.2	5.4	18.5	68.2	5.7	1.6	0.5	66.9	69.4
Palestinian Nat'l Auth.	2003	443	54.9	8.5	15.5	54.9	21.1	0.0	0.0	53.1	57.2
	2007	621	47.9	10.7	14.7	47.9	25.5	0.7	0.5	50.2	45.5
Romania	2003	339	59.0	7.8	12.2	59.0	21.0	0.0	0.0	58.5	59.5
	2007	597	57.2	13.1	12.2	57.2	15.3	1.6	0.5	62.1	52.6
Russian Federation	2003	368	69.8	4.3	2.9	69.8	23.1	0.0	0.0	72.1	68.0
	2007	636	68.7	7.5	6.5	68.7	13.3	2.7	1.3	66.1	71.7
Scotland	2003	293	68.5	5.7	16.4	68.5	9.4	0.0	0.0	64.5	72.5
	2007	582	68.9	5.6	18.4	68.9	6.1	0.3	0.7	68.5	69.4
Serbia	2003	357	52.9	10.3	9.5	52.9	27.3	0.0	0.0	57.3	48.5
	2007	574	55.6	13.0	9.6	55.6	19.7	2.1	0.0	58.2	53.2
Singapore	2003	494	60.9	8.4	21.2	60.9	9.5	0.0	0.0	58.2	63.6
	2007	653	70.8	7.9	11.3	70.8	9.7	0.2	0.0	71.3	70.3
Slovenia	2003	298	64.4	7.1	15.9	64.4	12.6	0.0	0.0	60.1	68.7
	2007	562	69.5	4.2	15.7	69.5	8.6	1.8	0.2	69.2	69.8
Sweden	2003	353	78.1	2.7	15.5	78.1	3.7	0.0	0.0	76.0	79.9
	2007	723	69.3	2.5	20.9	69.3	5.1	1.7	0.6	67.5	71.0
Tunisia	2003	393	50.3	6.2	26.2	50.3	17.3	0.0	0.0	50.6	49.9
	2007	586	46.2	6.0	19.5	46.2	20.5	5.7	2.1	45.5	47.0
United States	2003	746	72.0	4.9	16.1	72.0	7.0	0.0	0.0	73.1	70.8
	2007	1054	69.1	5.8	15.5	69.1	7.7	0.9	1.0	68.8	69.5
International Avg.	2003	388	61.5	7.9	15.7	61.5	14.9	0.0	0.0	62.0	61.1
	2007	625	60.4	7.6	15.7	60.4	13.4	2.0	0.9	61.0	59.8
Basque Country, Spain	2003	204	77.7	3.7	11.2	77.7	7.3	0.0	0.0	83.1	73.0
	2007	328	82.6	3.3	7.0	82.6	6.3	0.6	0.2	85.7	80.0
Ontario, Canada	2003	346	75.8	3.9	15.5	75.8	4.9	0.0	0.0	76.4	75.2
	2007	485	69.6	6.3	17.1	69.6	4.0	0.8	2.3	67.4	71.7
Quebec, Canada	2003	364	75.0	2.1	14.3	75.0	8.6	0.0	0.0	69.2	82.0
	2007	578	67.8	3.9	21.2	67.8	5.4	0.7	0.9	64.2	71.7

DIFF = Percent correct
 Because of missing gender information, some totals may appear inconsistent.

Science: Earth Science / Reasoning (S032654 - S13_11)
 Label: Location of jungle
 Type: MC Key: A

COUNTRY	Year	N	DIFF	A	B	C	D	OMIT TED	NOT REACH ED	1.GIRL %Right	2.BOY %Right
Armenia	2003	337	42.2	42.2	15.1	20.9	21.9	0.0	0.0	46.8	37.8
	2007	666	41.1	41.1	15.2	14.2	16.1	12.3	1.1	42.8	39.5
Australia	2003	380	50.5	50.5	4.1	20.2	25.3	0.0	0.0	41.8	59.3
	2007	574	52.5	52.5	3.5	21.1	21.2	1.0	0.7	47.6	57.6
Bahrain	2003	339	31.8	31.8	17.3	18.7	32.2	0.0	0.0	27.7	36.1
	2007	603	37.1	37.1	21.0	21.1	17.9	1.9	1.0	40.6	33.7
Botswana	2003	425	26.3	26.3	32.1	16.9	24.7	0.0	0.0	25.0	27.7
	2007	604	26.5	26.5	18.6	12.9	31.5	3.8	6.8	28.2	24.6
Bulgaria	2003	304	47.6	47.6	7.8	17.6	26.9	0.0	0.0	42.6	52.4
	2007	433	50.6	50.6	9.5	13.2	20.0	6.4	0.4	49.3	52.0
Chinese Taipei	2003	459	58.0	58.0	8.2	26.0	7.7	0.0	0.0	56.2	59.7
	2007	580	65.1	65.1	5.4	20.1	9.1	0.3	0.0	57.5	71.8
Cyprus	2003	336	37.3	37.3	10.7	26.9	25.1	0.0	0.0	32.5	41.6
	2007	630	38.8	38.8	9.0	28.4	22.7	1.0	0.2	34.0	43.7
Egypt	2003	572	23.2	23.2	25.1	20.9	30.7	0.0	0.0	23.3	23.1
	2007	939	25.7	25.7	22.9	22.8	26.6	1.6	0.4	22.7	28.8
England	2003	222	53.7	53.7	6.5	14.8	25.0	0.0	0.0	53.9	53.5
	2007	575	48.3	48.3	5.5	15.7	29.1	1.2	0.1	43.5	53.5
Ghana	2003	434	21.6	21.6	35.3	20.1	23.0	0.0	0.0	18.0	24.6
	2007	756	19.2	19.2	32.8	18.3	23.5	2.7	3.6	18.0	20.1
Hong Kong SAR	2003	403	72.1	72.1	3.7	14.7	9.5	0.0	0.0	66.8	77.6
	2007	495	61.4	61.4	6.8	18.9	12.0	0.2	0.7	61.8	60.9
Hungary	2003	267	71.2	71.2	2.1	11.8	14.9	0.0	0.0	67.7	75.1
	2007	591	70.9	70.9	3.8	10.8	13.4	1.1	0.0	71.7	69.9
Indonesia	2003	470	34.0	34.0	13.7	32.2	20.1	0.0	0.0	33.4	34.7
	2007	587	34.2	34.2	13.4	31.5	18.4	1.5	1.1	27.2	40.9
Iran, Islamic Rep. of	2003	400	54.0	54.0	12.3	17.1	16.5	0.0	0.0	52.1	55.3
	2007	562	50.6	50.6	12.0	16.0	18.2	2.2	1.0	52.1	49.3
Israel	2003	342	58.7	58.7	11.4	14.3	15.6	0.0	0.0	55.1	62.6
	2007	454	52.3	52.3	11.5	17.9	13.9	2.1	2.4	53.2	51.2
Italy	2003	340	47.8	47.8	6.7	21.4	24.1	0.0	0.0	44.3	52.0
	2007	621	48.0	48.0	5.7	22.4	21.1	2.3	0.4	45.7	50.3
Japan	2003	405	57.9	57.9	2.4	15.0	24.8	0.0	0.0	57.9	57.8
	2007	630	54.7	54.7	4.7	14.7	25.3	0.4	0.1	46.5	63.4
Jordan	2003	369	39.2	39.2	14.7	14.6	31.5	0.0	0.0	39.3	39.1
	2007	746	44.5	44.5	12.0	16.1	25.6	1.2	0.6	42.7	46.2
Korea, Rep. of	2003	439	54.2	54.2	6.3	21.9	17.6	0.0	0.0	48.3	59.6
	2007	608	58.2	58.2	5.4	17.8	18.7	0.0	0.0	51.2	65.2
Lebanon	2003	296	34.5	34.5	30.2	26.2	9.2	0.0	0.0	30.0	41.0
	2007	525	24.6	24.6	21.0	21.9	22.5	7.4	2.5	23.9	25.5

DIFF = Percent correct
 Because of missing gender information, some totals may appear inconsistent.

Science: Earth Science / Reasoning (S032654 - S13_11)
 Label: Location of jungle
 Type: MC Key: A

COUNTRY	Year	N	DIFF	A	B	C	D	OMIT TED	NOT REACH ED	1.GIRL %Right	2.BOY %Right
Lithuania	2003	383	58.9	58.9	5.0	14.2	21.9	0.0	0.0	55.0	62.7
	2007	568	57.0	57.0	3.5	15.0	23.4	1.0	0.0	51.3	63.1
Malaysia	2003	438	48.1	48.1	8.9	19.5	23.5	0.0	0.0	48.3	47.9
	2007	641	40.1	40.1	13.1	25.6	18.5	0.8	1.9	41.3	38.6
Norway	2003	330	54.7	54.7	3.5	12.1	29.7	0.0	0.0	48.0	61.6
	2007	642	52.0	52.0	3.5	11.1	31.1	1.7	0.6	47.6	56.2
Palestinian Nat'l Auth.	2003	442	32.6	32.6	21.1	20.9	25.3	0.0	0.0	31.9	33.6
	2007	621	28.8	28.8	17.7	22.3	30.0	0.8	0.5	29.5	28.1
Romania	2003	343	41.3	41.3	8.8	18.4	31.5	0.0	0.0	37.1	45.2
	2007	595	41.2	41.2	10.8	15.6	30.2	1.7	0.5	40.7	41.7
Russian Federation	2003	382	64.2	64.2	3.2	12.9	19.7	0.0	0.0	61.5	66.2
	2007	636	55.3	55.3	4.9	14.9	20.7	2.9	1.4	51.8	59.3
Scotland	2003	293	47.4	47.4	4.9	17.2	30.5	0.0	0.0	39.2	55.8
	2007	582	44.9	44.9	5.0	15.8	32.0	1.7	0.7	42.9	47.2
Serbia	2003	354	36.0	36.0	10.4	25.2	28.4	0.0	0.0	31.0	40.7
	2007	573	49.0	49.0	5.5	21.9	20.7	3.0	0.0	44.8	52.8
Singapore	2003	491	56.9	56.9	4.1	15.5	23.5	0.0	0.0	55.5	58.2
	2007	653	55.2	55.2	6.4	15.0	23.2	0.1	0.0	53.9	56.4
Slovenia	2003	304	59.5	59.5	3.9	13.8	22.9	0.0	0.0	58.2	60.7
	2007	562	64.2	64.2	3.2	11.5	20.5	0.4	0.2	59.6	68.7
Sweden	2003	352	63.6	63.6	2.5	12.9	21.0	0.0	0.0	55.1	71.4
	2007	723	58.1	58.1	5.7	11.7	21.9	2.1	0.6	58.1	58.1
Tunisia	2003	404	31.1	31.1	22.3	20.2	26.3	0.0	0.0	27.7	34.2
	2007	586	46.3	46.3	10.4	20.2	17.3	3.5	2.3	43.5	49.3
United States	2003	743	57.8	57.8	7.0	15.2	20.0	0.0	0.0	55.0	60.9
	2007	1054	57.1	57.1	5.7	15.1	20.1	1.0	1.1	55.6	58.8
International Avg.	2003	388	47.5	47.5	11.3	18.5	22.7	0.0	0.0	44.4	50.6
	2007	625	47.1	47.1	10.1	17.9	21.7	2.2	1.0	44.9	49.3
Basque Country, Spain	2003	204	57.2	57.2	4.6	17.5	20.7	0.0	0.0	53.4	60.6
	2007	328	60.0	60.0	5.0	15.2	18.9	0.7	0.2	51.2	67.4
Ontario, Canada	2003	346	64.2	64.2	1.8	9.9	24.1	0.0	0.0	63.7	64.6
	2007	485	50.7	50.7	4.8	14.0	26.3	1.7	2.4	44.7	56.8
Quebec, Canada	2003	360	54.6	54.6	4.0	9.2	32.1	0.0	0.0	52.0	57.7
	2007	578	43.1	43.1	5.8	12.7	36.4	1.1	0.9	40.9	45.4

DIFF = Percent correct
 Because of missing gender information, some totals may appear inconsistent.

Science: Biology / Knowing (S032126 - S13_12)
 Label: Volcanic eruption effects
 Type: CR Key: -

COUNTRY	Year	N	10	11	19	70	79	OMIT TED	NOT REACH ED	V1	1.GIRL %Right	2.BOY %Right
Armenia	2003	143	36.8	2.3	11.1	40.9	8.9	0.0	0.0	50.2	53.4	46.5
	2007	665	33.7	2.3	7.9	4.7	15.2	35.0	1.2	43.9	49.1	39.0
Australia	2003	360	71.0	3.0	0.9	18.4	6.8	0.0	0.0	74.9	71.9	78.0
	2007	574	72.0	2.6	1.8	12.2	7.0	3.5	0.9	76.5	76.0	77.0
Bahrain	2003	262	37.3	1.6	6.3	15.2	39.6	0.0	0.0	45.2	49.3	41.0
	2007	603	17.9	3.5	2.5	17.3	36.9	20.9	1.0	23.9	26.1	21.7
Botswana	2003	320	29.4	0.0	1.0	21.8	47.9	0.0	0.0	30.4	29.5	31.5
	2007	605	21.2	0.1	0.6	9.6	40.4	20.9	7.4	21.8	25.0	18.2
Bulgaria	2003	258	37.2	0.4	31.5	20.0	11.0	0.0	0.0	69.0	65.0	73.0
	2007	.	.	.	.	.	.	.	.	.	.	.
Chinese Taipei	2003	428	61.9	2.3	0.0	26.6	9.2	0.0	0.0	64.2	68.2	60.4
	2007	580	54.9	0.9	2.1	23.6	11.7	6.8	0.0	58.0	58.6	57.5
Cyprus	2003	263	52.5	2.6	4.6	28.5	11.8	0.0	0.0	59.7	56.6	63.0
	2007	630	36.8	1.9	8.6	20.9	13.8	17.9	0.2	47.2	44.8	49.6
Egypt	2003	500	19.1	9.0	4.3	17.1	50.5	0.0	0.0	32.4	35.0	30.5
	2007	944	4.8	11.3	0.2	18.1	44.9	20.5	0.4	16.2	17.4	15.0
England	2003	209	85.7	2.1	0.4	8.2	3.6	0.0	0.0	88.2	89.5	86.5
	2007	575	63.7	5.1	0.2	17.4	8.8	4.7	0.1	69.0	66.9	71.2
Ghana	2003	212	12.2	1.1	2.4	12.1	72.2	0.0	0.0	15.7	14.0	17.0
	2007	756	6.7	0.1	0.0	12.6	35.3	41.4	3.7	6.9	5.4	8.0
Hong Kong SAR	2003	383	57.9	1.8	0.5	29.3	10.4	0.0	0.0	60.3	60.2	60.4
	2007	495	55.6	1.6	0.6	18.2	17.1	6.1	0.7	57.9	56.1	59.7
Hungary	2003	202	65.0	4.2	1.0	24.8	5.0	0.0	0.0	70.1	72.4	67.9
	2007	591	50.0	2.1	0.6	18.5	10.5	18.3	0.0	52.7	54.0	51.2
Indonesia	2003	404	33.7	21.7	4.4	11.8	28.5	0.0	0.0	59.7	53.1	66.9
	2007	587	26.1	8.9	2.9	13.8	33.0	14.0	1.4	37.9	35.5	40.1
Iran, Islamic Rep. of	2003	316	27.7	2.9	29.5	10.0	29.9	0.0	0.0	60.1	61.6	59.0
	2007	562	32.4	3.7	3.2	7.4	28.7	23.1	1.5	39.3	40.8	38.1
Israel	2003	250	54.0	5.3	1.0	18.8	20.8	0.0	0.0	60.3	58.8	61.8
	2007	454	26.0	1.7	1.9	11.9	23.2	32.9	2.4	29.6	24.1	35.9
Italy	2003	281	45.1	3.8	7.7	25.4	18.0	0.0	0.0	56.6	65.3	46.2
	2007	622	36.1	5.8	2.7	18.3	13.6	23.0	0.4	44.7	42.6	46.7
Japan	2003	361	56.0	0.0	0.0	33.4	10.5	0.0	0.0	56.0	55.9	56.1
	2007	.	.	.	.	.	.	.	.	.	.	.
Jordan	2003	302	44.5	0.2	3.6	20.2	31.6	0.0	0.0	48.2	51.8	44.9
	2007	746	43.8	1.0	1.6	12.6	32.1	8.2	0.6	46.4	52.4	40.6
Korea, Rep. of	2003	413	37.9	0.6	8.5	39.4	13.7	0.0	0.0	46.9	47.9	46.1
	2007	608	31.9	3.1	3.0	45.9	10.8	5.2	0.0	38.0	34.5	41.5
Lebanon	2003	174	16.9	2.6	26.5	12.6	41.4	0.0	0.0	46.0	52.0	37.0
	2007	540	21.5	6.0	1.2	17.2	17.3	34.3	2.5	28.7	27.9	29.8

V1 = Percent scoring 1 or better V2 = Percent scoring 2 or better
 Percent right for boys and girls corresponds to the percent obtaining the maximum score on the item.
 Because of missing gender information, some totals may appear inconsistent.

Science: Biology / Knowing (S032126 - S13_12)
 Label: Volcanic eruption effects
 Type: CR Key: -

COUNTRY	Year	N	10	11	19	70	79	OMIT TED	NOT REACH ED	V1	1.GIRL %Right	2.BOY %Right
Lithuania	2003	373	69.0	1.6	0.8	16.2	12.4	0.0	0.0	71.4	75.7	67.0
	2007	569	64.5	5.2	0.0	20.6	4.1	5.3	0.1	69.7	70.7	68.8
Malaysia	2003	399	37.3	30.2	2.6	18.2	11.6	0.0	0.0	70.1	71.9	68.2
	2007	641	26.1	11.3	1.6	22.0	23.9	12.9	2.1	39.0	37.3	40.9
Norway	2003	295	53.9	1.8	6.0	31.2	7.1	0.0	0.0	61.6	57.4	66.3
	2007	642	48.1	7.2	0.0	27.4	6.7	10.0	0.6	55.3	57.3	53.3
Palestinian Nat'l Auth.	2003	378	35.1	1.0	6.2	13.0	44.7	0.0	0.0	42.3	47.8	35.5
	2007	620	19.1	0.3	1.9	20.0	45.0	13.1	0.5	21.4	25.5	17.0
Romania	2003	269	50.3	0.7	0.2	42.6	6.2	0.0	0.0	51.2	52.7	49.9
	2007	597	34.8	0.3	2.1	32.4	13.2	16.7	0.5	37.2	40.7	33.8
Russian Federation	2003	322	72.5	1.9	2.1	19.4	4.1	0.0	0.0	76.5	73.7	78.9
	2007	636	49.9	0.6	0.6	34.2	5.7	7.6	1.4	51.1	50.8	51.4
Scotland	2003	278	81.4	5.6	0.0	8.6	4.4	0.0	0.0	87.0	87.3	86.7
	2007	582	60.1	3.8	0.0	19.1	9.9	6.5	0.7	63.9	62.3	65.7
Serbia	2003	244	24.3	6.2	4.8	26.1	38.6	0.0	0.0	35.3	37.3	33.5
	2007	576	29.1	3.6	1.3	17.4	15.7	32.8	0.0	34.0	35.1	33.0
Singapore	2003	473	75.6	6.0	0.0	12.6	5.8	0.0	0.0	81.6	81.1	82.1
	2007	653	61.7	5.0	0.9	19.2	9.5	3.8	0.0	67.6	68.1	67.1
Slovenia	2003	270	43.8	9.2	2.4	35.5	9.1	0.0	0.0	55.4	52.4	58.5
	2007	562	57.9	9.7	1.0	23.8	4.0	3.4	0.2	68.6	65.6	71.5
Sweden	2003	307	58.4	4.5	3.0	21.9	12.2	0.0	0.0	65.9	69.6	62.7
	2007	723	39.9	5.4	1.1	28.9	10.1	14.0	0.6	46.4	49.6	43.2
Tunisia	2003	358	29.6	0.8	1.7	33.0	34.9	0.0	0.0	32.1	31.0	33.1
	2007	586	26.9	0.3	2.4	20.0	32.8	15.0	2.7	29.5	32.4	26.5
United States	2003	724	66.2	6.9	1.5	17.1	8.3	0.0	0.0	74.6	76.2	72.7
	2007	1054	49.5	8.8	0.0	33.1	4.5	3.0	1.2	58.3	60.5	55.8
International Avg.	2003	325	47.9	4.4	5.3	22.1	20.3	0.0	0.0	57.6	58.4	56.6
	2007	632	38.8	4.0	1.8	20.0	18.9	15.5	1.1	44.5	44.9	44.2
Basque Country, Spain	2003	171	67.4	0.3	2.4	25.0	4.8	0.0	0.0	70.1	74.6	66.1
	2007	328	59.3	2.0	2.3	12.6	9.8	13.9	0.2	63.5	62.7	64.2
Ontario, Canada	2003	325	72.8	5.0	1.1	15.3	5.8	0.0	0.0	78.9	80.7	77.0
	2007	485	67.5	4.5	0.1	15.8	4.2	5.6	2.4	72.0	67.0	77.0
Quebec, Canada	2003	328	49.2	14.1	0.8	21.9	14.0	0.0	0.0	64.1	68.7	58.9
	2007	578	53.6	9.9	0.7	15.6	12.1	7.0	1.1	64.2	64.8	63.5

V1 = Percent scoring 1 or better V2 = Percent scoring 2 or better
 Percent right for boys and girls corresponds to the percent obtaining the maximum score on the item.
 Because of missing gender information, some totals may appear inconsistent.

Science: Earth Science / Knowing (S032510 - S13_13)
 Label: Material that breaks down quickly
 Type: MC Key: D

COUNTRY	Year	N	DIFF	A	B	C	D	OMIT TED	NOT REACH ED	1.GIRL %Right	2.BOY %Right
Armenia	2003	429	75.9	14.5	7.1	2.6	75.9	0.0	0.0	79.7	72.1
	2007	669	76.4	12.5	6.3	2.5	76.4	0.8	1.5	76.4	76.3
Australia	2003	384	82.5	3.5	7.7	6.4	82.5	0.0	0.0	89.2	75.6
	2007	574	83.0	1.6	7.4	5.9	83.0	1.1	1.0	81.5	84.6
Bahrain	2003	344	54.7	14.0	22.7	8.5	54.7	0.0	0.0	53.2	56.3
	2007	603	47.6	18.5	23.7	8.7	47.6	0.2	1.2	47.8	47.4
Botswana	2003	423	35.3	8.8	16.3	39.6	35.3	0.0	0.0	36.1	34.3
	2007	606	27.7	9.2	17.3	34.8	27.7	1.6	9.4	31.8	23.0
Bulgaria	2003	313	77.7	5.4	12.5	4.4	77.7	0.0	0.0	72.2	83.0
	2007	433	82.0	3.5	10.5	2.2	82.0	1.1	0.7	80.9	83.2
Chinese Taipei	2003	459	91.4	3.2	3.9	1.5	91.4	0.0	0.0	91.3	91.4
	2007	580	84.8	5.0	8.5	1.5	84.8	0.0	0.2	80.0	89.0
Cyprus	2003	338	61.0	10.5	12.9	15.6	61.0	0.0	0.0	64.0	58.3
	2007	630	62.4	9.0	14.6	13.4	62.4	0.4	0.2	59.4	65.5
Egypt	2003	580	38.5	21.0	29.0	11.5	38.5	0.0	0.0	33.2	42.9
	2007	937	44.4	20.5	24.3	9.2	44.4	1.2	0.5	43.5	45.4
England	2003	222	72.1	4.3	8.7	14.8	72.1	0.0	0.0	73.8	70.0
	2007	575	75.7	2.9	8.5	12.1	75.7	0.5	0.4	69.3	82.5
Ghana	2003	435	34.0	11.6	17.4	36.9	34.0	0.0	0.0	34.7	33.5
	2007	756	35.3	11.6	16.4	31.7	35.3	0.5	4.6	34.1	36.1
Hong Kong SAR	2003	404	84.4	4.9	7.4	3.2	84.4	0.0	0.0	82.0	86.9
	2007	495	80.5	4.9	8.8	5.2	80.5	0.0	0.7	79.6	81.3
Hungary	2003	267	90.6	1.9	6.3	1.2	90.6	0.0	0.0	89.0	92.3
	2007	591	90.2	2.8	5.9	0.8	90.2	0.2	0.0	90.4	90.1
Indonesia	2003	484	86.5	4.0	6.2	3.3	86.5	0.0	0.0	82.3	91.2
	2007	587	80.8	4.5	6.5	6.2	80.8	0.4	1.7	78.6	83.0
Iran, Islamic Rep. of	2003	402	61.3	11.9	24.6	2.2	61.3	0.0	0.0	61.5	61.2
	2007	562	56.5	10.4	26.9	3.2	56.5	0.5	2.5	59.7	53.7
Israel	2003	344	69.5	8.0	13.3	9.1	69.5	0.0	0.0	66.0	73.3
	2007	454	59.4	8.8	17.6	10.2	59.4	1.3	2.6	56.7	62.4
Italy	2003	348	73.7	4.7	19.3	2.3	73.7	0.0	0.0	77.2	69.4
	2007	620	74.7	5.5	13.0	4.3	74.7	0.8	1.6	80.8	68.9
Japan	2003	406	77.7	5.1	13.5	3.6	77.7	0.0	0.0	78.4	77.1
	2007	630	78.0	5.5	13.9	2.2	78.0	0.1	0.4	79.8	76.1
Jordan	2003	372	55.9	19.4	18.9	5.8	55.9	0.0	0.0	56.9	55.0
	2007	746	61.0	16.6	19.5	2.0	61.0	0.2	0.7	59.7	62.2
Korea, Rep. of	2003	443	82.7	6.3	5.8	5.1	82.7	0.0	0.0	80.6	84.7
	2007	608	82.7	5.4	6.2	5.2	82.7	0.4	0.0	81.3	84.1
Lebanon	2003	307	50.5	11.0	17.1	21.5	50.5	0.0	0.0	49.0	52.6
	2007	537	43.3	13.6	15.9	22.3	43.3	2.1	2.9	45.7	40.1

DIFF = Percent correct
 Because of missing gender information, some totals may appear inconsistent.

Trends in International Mathematics and Science Study - TIMSS 2007 Assessment Results
 Percent of Responses by Item Category (Weighted) - Science Trend Items - 8th Grade

16:15 Monday, January 12, 2009 200

Science: Earth Science / Knowing (S032510 - S13_13)
 Label: Material that breaks down quickly
 Type: MC Key: D

COUNTRY	Year	N	DIFF	A	B	C	D	OMIT TED	NOT REACH ED	1.GIRL %Right	2.BOY %Right
Lithuania	2003	388	93.5	2.1	3.0	1.3	93.5	0.0	0.0	90.8	96.1
	2007	567	89.8	4.3	4.3	1.3	89.8	0.1	0.1	88.3	91.3
Malaysia	2003	442	81.8	7.1	9.0	2.1	81.8	0.0	0.0	78.5	85.3
	2007	641	66.5	7.5	15.6	8.0	66.5	0.2	2.3	64.9	68.4
Norway	2003	341	70.9	8.2	10.5	10.4	70.9	0.0	0.0	71.4	70.3
	2007	642	71.0	8.0	11.1	7.5	71.0	1.6	0.9	72.4	69.6
Palestinian Nat'l Auth.	2003	440	62.6	18.7	13.1	5.7	62.6	0.0	0.0	65.1	59.4
	2007	620	61.4	11.2	18.3	7.6	61.4	1.0	0.5	62.4	60.2
Romania	2003	346	84.7	4.0	8.0	3.2	84.7	0.0	0.0	84.2	85.2
	2007	597	79.4	6.2	9.7	2.7	79.4	1.4	0.5	78.6	80.2
Russian Federation	2003	382	84.1	7.6	5.4	2.9	84.1	0.0	0.0	84.0	84.2
	2007	636	81.1	8.5	5.3	2.8	81.1	0.8	1.4	81.8	80.2
Scotland	2003	291	71.6	4.8	5.2	18.4	71.6	0.0	0.0	71.4	71.7
	2007	582	70.2	5.5	6.8	15.7	70.2	0.8	1.0	69.5	70.9
Serbia	2003	365	85.6	3.5	6.0	4.9	85.6	0.0	0.0	85.7	85.4
	2007	576	85.5	5.1	5.8	3.5	85.5	0.0	0.0	84.7	86.2
Singapore	2003	495	82.5	3.6	6.8	7.2	82.5	0.0	0.0	85.3	79.8
	2007	653	75.8	4.1	11.3	8.9	75.8	0.0	0.0	77.5	74.2
Slovenia	2003	302	88.3	5.5	4.5	1.8	88.3	0.0	0.0	87.9	88.6
	2007	562	90.5	4.5	3.2	1.0	90.5	0.6	0.2	90.1	90.9
Sweden	2003	355	86.6	2.8	5.4	5.1	86.6	0.0	0.0	83.9	89.2
	2007	723	85.0	3.0	6.4	3.9	85.0	1.0	0.7	87.0	83.1
Tunisia	2003	401	56.1	7.3	15.0	21.5	56.1	0.0	0.0	50.9	60.8
	2007	586	55.7	4.9	16.2	17.5	55.7	2.9	2.9	55.5	56.0
United States	2003	745	75.6	4.0	10.6	9.8	75.6	0.0	0.0	74.1	77.4
	2007	1054	73.3	3.9	12.0	9.3	73.3	0.4	1.2	72.2	74.4
International Avg.	2003	394	72.1	7.7	11.3	8.9	72.1	0.0	0.0	71.6	72.6
	2007	625	70.0	7.5	12.0	8.3	70.0	0.7	1.3	69.8	70.3
Basque Country, Spain	2003	205	66.7	6.9	20.8	5.7	66.7	0.0	0.0	70.9	63.1
	2007	328	62.0	7.6	20.4	9.4	62.0	0.3	0.3	63.1	61.1
Ontario, Canada	2003	350	78.7	2.0	8.2	11.1	78.7	0.0	0.0	74.4	82.9
	2007	485	74.8	3.4	9.8	8.8	74.8	0.5	2.7	71.5	78.1
Quebec, Canada	2003	363	87.1	3.9	7.8	1.1	87.1	0.0	0.0	86.9	87.4
	2007	578	78.3	5.8	9.8	4.2	78.3	0.3	1.6	76.3	80.5

DIFF = Percent correct
 Because of missing gender information, some totals may appear inconsistent.

Science: Physics / Knowing (S032158 - S13_14)
 Label: Molecules of gas when heated
 Type: MC Key: B

COUNTRY	Year	N	DIFF	A	B	C	D	OMIT TED	NOT REACH ED	1.GIRL %Right	2.BOY %Right
Armenia	2003	406	77.2	12.4	77.2	3.6	6.8	0.0	0.0	75.9	78.5
	2007	669	77.8	6.1	77.8	2.7	6.9	5.1	1.5	82.9	73.1
Australia	2003	383	59.0	19.6	59.0	4.5	17.0	0.0	0.0	51.8	66.4
	2007	574	56.6	20.2	56.6	6.5	14.2	1.3	1.1	54.5	58.7
Bahrain	2003	341	49.5	12.2	49.5	7.8	30.5	0.0	0.0	54.1	44.6
	2007	603	42.3	19.1	42.3	7.6	29.0	0.8	1.2	46.6	38.3
Botswana	2003	425	47.1	17.9	47.1	8.9	26.1	0.0	0.0	46.5	47.8
	2007	605	41.4	13.8	41.4	11.6	20.8	2.5	9.9	41.7	41.0
Bulgaria	2003	306	54.8	18.4	54.8	5.8	20.9	0.0	0.0	47.9	61.5
	2007	433	56.1	14.5	56.1	9.3	15.9	3.5	0.7	50.9	61.7
Chinese Taipei	2003	458	59.1	21.7	59.1	9.0	10.3	0.0	0.0	61.7	56.6
	2007	580	67.1	19.8	67.1	5.7	7.1	0.1	0.2	64.9	69.1
Cyprus	2003	338	65.4	11.1	65.4	5.8	17.7	0.0	0.0	67.4	63.5
	2007	630	67.7	12.1	67.7	6.1	12.7	1.3	0.2	71.2	64.2
Egypt	2003	576	42.6	28.1	42.6	11.9	17.5	0.0	0.0	44.4	41.0
	2007	938	40.4	30.6	40.4	10.8	16.5	1.3	0.4	39.9	41.0
England	2003	221	70.9	10.3	70.9	4.2	14.5	0.0	0.0	64.5	78.7
	2007	575	65.8	14.2	65.8	4.6	14.2	0.8	0.4	63.3	68.5
Ghana	2003	434	41.5	13.1	41.5	9.2	36.3	0.0	0.0	34.8	47.3
	2007	756	41.8	7.7	41.8	11.2	33.4	1.0	4.8	41.7	42.0
Hong Kong SAR	2003	401	64.3	19.9	64.3	5.2	10.6	0.0	0.0	56.4	72.5
	2007	495	53.1	23.2	53.1	7.6	14.9	0.4	0.7	52.1	54.2
Hungary	2003	265	80.8	6.7	80.8	1.5	11.0	0.0	0.0	81.7	79.9
	2007	591	73.1	10.1	73.1	3.4	12.0	1.5	0.0	78.4	67.1
Indonesia	2003	479	39.3	29.6	39.3	3.9	27.2	0.0	0.0	41.6	36.7
	2007	587	31.9	38.4	31.9	5.1	21.1	1.5	1.9	34.3	29.7
Iran, Islamic Rep. of	2003	396	60.2	14.1	60.2	4.2	21.5	0.0	0.0	67.2	55.4
	2007	562	50.0	9.8	50.0	6.6	29.6	1.4	2.6	53.6	46.9
Israel	2003	347	75.7	10.7	75.7	5.2	8.4	0.0	0.0	73.8	77.8
	2007	454	75.9	7.4	75.9	5.8	7.1	1.0	2.9	78.0	73.4
Italy	2003	341	60.6	16.7	60.6	6.0	16.8	0.0	0.0	60.3	60.9
	2007	620	50.7	16.0	50.7	5.7	23.7	2.3	1.6	50.8	50.6
Japan	2003	402	41.2	18.9	41.2	11.2	28.6	0.0	0.0	39.3	42.9
	2007	630	42.5	20.4	42.5	12.0	24.5	0.2	0.4	40.0	45.1
Jordan	2003	369	56.3	16.6	56.3	6.0	21.2	0.0	0.0	58.6	54.0
	2007	746	60.8	12.2	60.8	7.8	17.7	0.6	0.8	64.6	57.2
Korea, Rep. of	2003	442	86.6	2.6	86.6	3.2	7.5	0.0	0.0	86.3	86.9
	2007	608	83.8	2.3	83.8	4.3	9.6	0.0	0.0	83.9	83.8
Lebanon	2003	302	44.0	12.9	44.0	8.5	34.6	0.0	0.0	42.0	47.0
	2007	531	41.4	14.4	41.4	8.2	28.9	4.3	2.9	39.1	44.3

DIFF = Percent correct
 Because of missing gender information, some totals may appear inconsistent.

Science: Physics / Knowing (S032158 - S13_14)
 Label: Molecules of gas when heated
 Type: MC Key: B

COUNTRY	Year	N	DIFF	A	B	C	D	OMIT TED	NOT REACH ED	1.GIRL %Right	2.BOY %Right
Lithuania	2003	389	74.4	7.2	74.4	3.1	15.3	0.0	0.0	74.2	74.5
	2007	566	59.7	16.7	59.7	3.1	19.9	0.3	0.1	56.3	63.3
Malaysia	2003	441	62.7	15.2	62.7	4.6	17.5	0.0	0.0	67.8	57.4
	2007	641	62.1	14.7	62.1	6.4	13.9	0.4	2.4	67.4	56.2
Norway	2003	340	66.8	17.2	66.8	3.7	12.3	0.0	0.0	70.1	63.3
	2007	642	67.4	15.5	67.4	3.5	11.7	0.2	1.7	71.6	63.4
Palestinian Nat'l Auth.	2003	438	46.3	21.3	46.3	8.6	23.8	0.0	0.0	47.6	44.5
	2007	620	44.1	18.9	44.1	9.0	27.0	0.6	0.5	46.7	41.3
Romania	2003	345	43.1	21.2	43.1	4.7	31.0	0.0	0.0	43.0	43.2
	2007	597	42.8	24.9	42.8	6.7	24.1	0.9	0.5	42.7	43.0
Russian Federation	2003	378	81.9	6.3	81.9	1.0	10.8	0.0	0.0	78.1	84.8
	2007	636	79.0	5.8	79.0	2.2	9.6	1.8	1.6	80.9	76.8
Scotland	2003	286	49.0	22.9	49.0	4.1	24.0	0.0	0.0	41.9	56.6
	2007	582	55.3	15.8	55.3	5.6	22.0	0.3	1.0	58.5	51.7
Serbia	2003	357	50.9	16.4	50.9	6.3	26.4	0.0	0.0	54.6	47.5
	2007	574	41.9	17.7	41.9	5.3	30.1	5.0	0.0	41.5	42.4
Singapore	2003	496	72.8	15.0	72.8	4.4	7.8	0.0	0.0	76.5	69.2
	2007	653	75.2	11.4	75.2	2.6	10.7	0.1	0.0	79.7	70.8
Slovenia	2003	297	64.5	11.8	64.5	7.6	16.1	0.0	0.0	63.9	65.1
	2007	562	68.1	9.4	68.1	5.1	16.1	1.2	0.2	62.6	73.6
Sweden	2003	355	78.4	13.8	78.4	4.3	3.5	0.0	0.0	78.4	78.5
	2007	723	69.4	9.6	69.4	4.3	14.5	1.4	0.7	65.9	72.9
Tunisia	2003	399	47.5	16.7	47.5	6.6	29.1	0.0	0.0	55.0	40.4
	2007	586	41.1	8.3	41.1	7.0	37.1	3.0	3.4	38.3	44.1
United States	2003	742	65.2	15.5	65.2	7.2	12.0	0.0	0.0	63.4	67.4
	2007	1054	70.1	11.9	70.1	6.6	9.5	0.4	1.4	68.3	72.0
International Avg.	2003	391	60.0	15.6	60.0	5.8	18.6	0.0	0.0	59.7	60.4
	2007	625	57.5	14.9	57.5	6.4	18.4	1.4	1.4	58.0	57.0
Basque Country, Spain	2003	206	62.3	13.7	62.3	5.7	18.3	0.0	0.0	56.6	67.3
	2007	328	52.9	25.3	52.9	8.0	13.2	0.3	0.3	48.4	56.6
Ontario, Canada	2003	349	84.7	8.3	84.7	2.7	4.3	0.0	0.0	85.7	83.6
	2007	485	74.7	11.7	74.7	4.3	6.3	0.3	2.7	73.1	76.4
Quebec, Canada	2003	361	61.8	21.0	61.8	4.6	12.7	0.0	0.0	58.7	65.4
	2007	578	44.8	20.0	44.8	7.9	25.0	0.6	1.6	42.7	47.1

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