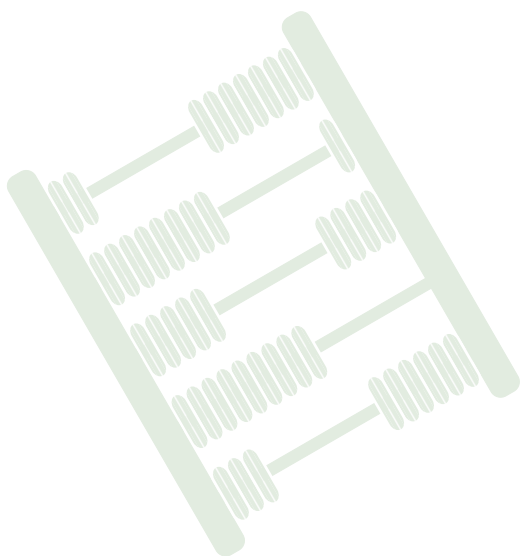


REFERENCE

2

The Mathematics Curriculum





	Percentage of Students Whose Schools Reported Various Organizational Approaches in Mathematics Instruction to Accommodate Students with Different Abilities or Interests in Mathematics				
	All Classes Study Similar Content but at Different Levels of Difficulty	Students Are Grouped by Ability within Classes	Enrichment Mathematics Is Offered	Remedial Mathematics Is Offered	Different Classes Study Different Content
Countries					
United States	r 49 (4.7)	r 49 (4.2)	r 79 (2.8)	r 64 (3.9)	r 37 (4.2)
Belgium (Flemish)	66 (5.1)	11 (3.2)	36 (5.0)	81 (4.7)	100 (0.0)
Canada	s 77 (3.4)	s 43 (4.3)	s 66 (3.8)	s 87 (2.5)	s 17 (3.0)
Chinese Taipei	50 (4.2)	25 (3.7)	88 (2.7)	81 (3.5)	18 (3.1)
Czech Republic	68 (4.3)	44 (5.0)	29 (3.9)	62 (4.3)	7 (3.0)
England	r 78 (3.6)	r 57 (4.7)	r 48 (5.0)	r 61 (4.8)	r 0 (0.0)
Hong Kong, SAR	r 62 (4.9)	17 (3.5)	63 (4.4)	59 (4.8)	r 3 (1.7)
Italy	0 (0.0)	0 (0.0)	51 (3.8)	81 (3.0)	0 (0.0)
Japan	31 (3.9)	13 (3.1)	32 (3.5)	67 (4.3)	13 (2.9)
Korea, Rep. of	66 (3.9)	41 (4.3)	27 (3.5)	26 (3.5)	38 (4.5)
Netherlands	r 55 (6.8)	r 39 (6.9)	r 90 (3.8)	r 64 (7.5)	r 60 (6.8)
Russian Federation	32 (3.8)	47 (4.0)	90 (3.0)	53 (3.8)	25 (3.5)
Singapore	0 (0.0)	0 (0.0)	80 (3.5)	99 (0.8)	82 (3.6)
States					
Connecticut	s 56 (9.5)	s 70 (8.4)	s 98 (2.1)	s 62 (9.5)	s 65 (9.7)
Idaho	r 46 (7.0)	r 57 (9.8)	r 73 (7.7)	r 80 (6.8)	r 66 (9.7)
Illinois	50 (6.2)	r 67 (5.6)	84 (3.7)	43 (7.2)	55 (5.9)
Indiana	51 (7.8)	52 (8.9)	85 (5.3)	43 (8.4)	43 (7.4)
Maryland	r 61 (8.0)	r 86 (4.2)	r 86 (5.1)	r 69 (7.7)	r 66 (7.0)
Massachusetts	s 54 (9.8)	s 37 (8.8)	s 84 (7.0)	s 63 (9.7)	s 41 (10.0)
Michigan	36 (7.5)	62 (6.2)	79 (6.2)	57 (8.1)	58 (6.9)
Missouri	36 (7.2)	48 (5.8)	64 (5.8)	38 (7.2)	41 (6.1)
North Carolina	r 81 (5.8)	r 73 (7.2)	r 94 (3.6)	r 71 (7.1)	r 40 (7.3)
Oregon	65 (8.3)	62 (8.4)	93 (4.2)	83 (6.0)	75 (7.5)
<i>Pennsylvania</i>	48 (8.5)	52 (8.2)	84 (6.1)	62 (6.5)	59 (5.5)
South Carolina	74 (6.5)	46 (8.1)	98 (2.5)	r 60 (7.4)	r 51 (6.7)
Texas	r 79 (7.5)	r 39 (6.8)	r 100 (0.0)	r 56 (9.4)	r 41 (8.6)
Districts and Consortia					
Academy School Dist. #20, CO	r 35 (0.4)	75 (0.3)	100 (0.0)	83 (0.4)	r 100 (0.0)
Chicago Public Schools, IL	r 78 (7.1)	s 54 (11.5)	r 28 (12.0)	r 70 (9.3)	r 15 (7.8)
Delaware Science Coalition, DE	r 54 (2.0)	r 58 (2.1)	r 96 (0.2)	r 53 (1.9)	r 64 (1.9)
First in the World Consort., IL	r 40 (1.3)	r 58 (1.1)	r 100 (0.0)	r 35 (1.6)	r 88 (0.4)
Fremont/Lincoln/WestSide PS, NE	r 80 (2.1)	s 68 (1.3)	s 100 (0.0)	r 76 (0.9)	s 84 (0.6)
Guilford County, NC	s 56 (1.2)	s 91 (0.2)	r 82 (0.8)	r 56 (1.2)	s 94 (0.6)
Jersey City Public Schools, NJ	58 (1.3)	16 (0.7)	11 (2.1)	52 (1.4)	0 (0.0)
Miami-Dade County PS, FL	s 83 (9.9)	s 74 (13.5)	s 100 (0.0)	s 40 (15.4)	x x
Michigan Invitational Group, MI	41 (1.4)	23 (1.2)	59 (1.5)	45 (1.5)	31 (1.1)
Montgomery County, MD	s 57 (10.7)	s 82 (8.8)	s 100 (0.0)	s 78 (11.2)	s 46 (15.5)
Naperville Sch. Dist. #203, IL	45 (1.5)	15 (2.1)	100 (0.0)	76 (1.5)	57 (1.5)
Project SMART Consortium, OH	r 37 (1.3)	46 (1.5)	96 (0.5)	41 (1.4)	r 63 (1.2)
Rochester City Sch. Dist., NY	r 100 (0.0)	r 0 (0.0)	r 100 (0.0)	r 46 (1.6)	r 27 (1.6)
SW Math/Sci. Collaborative, PA	50 (7.6)	46 (8.6)	90 (5.7)	53 (8.8)	57 (8.0)
International Avg. (All Countries)	58 (0.6)	35 (0.6)	58 (0.6)	72 (0.6)	17 (0.5)

SOURCE: IEA Third International Mathematics and Science Study (TIMSS), 1998-1999.

Background data provided by schools.

 States in *italics* did not fully satisfy guidelines for sample participation rates (see Appendix A for details).

() Standard errors appear in parentheses. Because results are rounded to the nearest whole number, some totals may appear inconsistent.

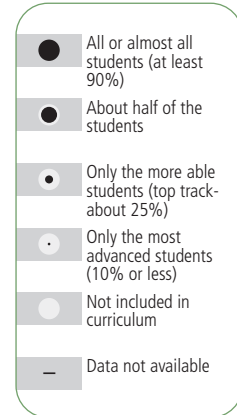
An "r" indicates school response data available for 70-84% of students. An "s" indicates school response data available for 50-69% of students. An "x" indicates school response data available for <50% of students.

	Whole numbers – including place values, factorization and operations (+, −, ×, ÷)	Understanding and representing common fractions	Computations with common fractions	Understanding and representing decimal fractions	Computations with decimal fractions	Relationships between common and decimal fractions, ordering of fractions	Rounding whole numbers and decimal fractions	Estimating the results of computations	Number lines
Countries									
United States	●	●	●	●	●	●	●	●	●
Belgium (Flemish)	●	●	●	●	●	●	●	●	●
Canada	●	●	●	●	●	●	●	●	●
Chinese Taipei	●	●	●	●	●	●	●	●	●
Czech Republic	●	●	●	●	●	●	●	●	●
England	●	●	●	●	●	●	●	●	●
Hong Kong, SAR	●	●	●	●	●	●	●	●	●
Italy	●	●	●	●	●	●	●	●	●
Japan	●	●	●	●	●	●	●	●	●
Korea, Rep. of	●	●	●	●	●	●	●	●	●
Netherlands	●	●	●	●	●	●	●	●	●
Russian Federation	●	●	●	●	●	●	●	●	●
Singapore	●	●	●	●	●	●	●	●	●
States									
Connecticut	●	●	●	●	●	●	●	●	●
Idaho	●	●	●	●	●	●	●	●	●
Illinois	●	●	●	●	●	●	●	●	●
Indiana	●	●	●	●	●	●	●	●	●
Maryland	●	●	●	●	●	●	●	●	●
Massachusetts	●	●	●	●	●	●	●	●	●
Michigan	●	●	●	●	●	●	●	●	●
Missouri	●	●	●	●	●	●	●	●	●
North Carolina	●	●	●	●	●	●	●	●	●
Oregon	●	●	●	●	●	●	●	●	●
Pennsylvania	●	●	●	●	●	●	●	●	●
South Carolina	●	●	●	●	●	●	●	●	●
Texas	●	●	●	●	●	●	●	●	●
Districts and Consortia									
Academy School Dist. #20, CO	—	—	—	—	—	—	—	—	—
Chicago Public Schools, IL	●	●	●	●	●	●	●	●	●
Delaware Science Coalition, DE	●	●	●	●	●	●	●	●	●
First in the World Consort., IL	●	●	●	●	●	●	●	●	●
Fremont/Lincoln/WestSide PS, NE	●	●	●	●	●	●	●	●	●
Guilford County, NC	●	●	●	●	●	●	●	●	●
Jersey City Public Schools, NJ	●	●	●	●	●	●	●	●	●
Miami-Dade County PS, FL	●	●	●	●	●	●	●	●	●
Michigan Invitational Group, MI	●	●	●	●	●	●	●	●	●
Montgomery County, MD	●	●	●	●	●	●	●	●	●
Naperville Sch. Dist. #203, IL	●	●	●	●	●	●	●	●	●
Project SMART Consortium, OH	●	●	●	●	●	●	●	●	●
Rochester City Sch. Dist., NY	●	●	●	●	●	●	●	●	●
SW Math/Sci. Collaborative, PA	—	—	—	—	—	—	—	—	—

SOURCE: IEA Third International Mathematics and Science Study (TIMSS), 1998-1999.

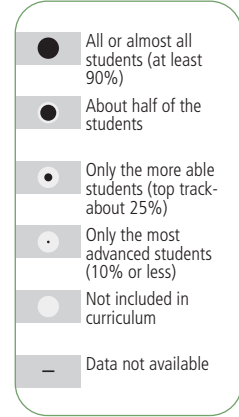
Background data provided by coordinators from participating jurisdictions.

Whole number powers of integers	Computations with percentages and problems involving percentages	Simple computations with negative numbers	Square roots (of perfect squares less than 144), small integer exponents	Prime factors, highest common factor, lowest common multiple, rules for divisibility	Sets, subsets union, intersection, venn diagrams	Rate problems	Concepts of ratio and proportion; ratio and proportion problems	
Countries								
●	●	●	●	●	●	●	●	United States
●	●	●	●	●	●	●	●	Belgium (Flemish)
●	●	●	●	●	●	●	●	Canada
●	●	●	●	●	●	●	●	Chinese Taipei
●	●	●	●	●	●	●	●	Czech Republic
●	●	●	●	●	●	●	●	England
●	●	●	●	●	●	●	●	Hong Kong, SAR
●	●	●	●	●	●	●	●	Italy
●	●	●	●	●	●	●	●	Japan
●	●	●	●	●	●	●	●	Korea, Rep. of
●	●	●	●	●	●	●	●	Netherlands
●	●	●	●	●	●	●	●	Russian Federation
●	●	●	●	●	●	●	●	Singapore
States								
●	●	●	●	●	●	●	●	Connecticut
●	●	●	●	●	●	●	●	Idaho
●	●	●	●	●	●	●	●	Illinois
●	●	●	●	●	●	●	●	Indiana
●	●	●	●	●	●	●	●	Maryland
●	●	●	●	●	●	●	●	Massachusetts
●	●	●	●	●	●	●	●	Michigan
●	●	●	●	●	●	●	●	Missouri
●	●	●	●	●	●	●	●	North Carolina
●	●	●	●	●	●	●	●	Oregon
●	●	●	●	●	●	●	●	Pennsylvania
●	●	●	●	●	●	●	●	South Carolina
●	●	●	●	●	●	●	●	Texas
Districts and Consortia								
—	—	—	—	—	—	—	—	Academy School Dist. #20, CO
●	●	●	●	●	●	●	●	Chicago Public Schools, IL
●	●	●	●	●	●	●	●	Delaware Science Coalition, DE
●	●	●	●	●	●	●	●	First in the World Consort., IL
●	●	●	●	●	●	●	●	Fremont/Lincoln/WestSide PS, NE
●	●	●	●	●	●	●	●	Guilford County, NC
●	●	●	●	●	●	●	●	Jersey City Public Schools, NJ
●	●	●	●	●	●	●	●	Miami-Dade County PS, FL
●	●	●	●	●	●	●	●	Michigan Invitational Group, MI
●	●	●	●	●	●	●	●	Montgomery County, MD
●	●	●	●	●	●	●	●	Naperville Sch. Dist. #203, IL
●	●	●	●	●	●	●	●	Project SMART Consortium, OH
●	●	●	●	●	●	●	●	Rochester City Sch. Dist., NY
—	—	—	—	—	—	—	—	SW Math/Sci. Collaborative, PA



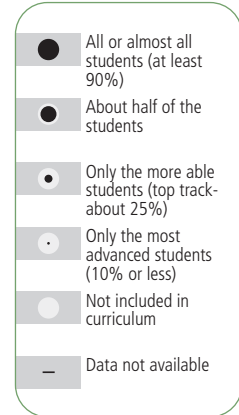
SOURCE: IEA Third International Mathematics and Science Study (TIMSS), 1998-1999.

	Units of measurement; standard metric units	Reading measurement instruments	Estimates of measurement; accuracy of measurement	Conversions of units between measurement systems	Perimeter and area of simple shapes – triangles, rectangles, and circles	Perimeter and area of combined shapes	Volume of rectangular solids i.e., Volume = length x width x height	Volume of other solids (e.g., pyramids, cylinders; cones, spheres)	Computing with measurements (+, -, x, ÷)	Scales applied to maps and models
Countries										
United States	●	●	●	●	●	●	●	●	●	●
Belgium (Flemish)	●	●	●	●	●	●	●	●	●	●
Canada	●	●	●	●	●	●	●	●	●	●
Chinese Taipei	●	●	●	●	●	●	●	●	●	●
Czech Republic	●	●	●	●	●	●	●	●	●	●
England	●	●	●	●	●	●	●	●	●	●
Hong Kong, SAR	●	●	●	●	●	●	●	●	●	●
Italy	●	●	●	●	●	●	●	●	●	●
Japan	●	●	●	●	●	●	●	●	●	●
Korea, Rep. of	●	●	●	●	●	●	●	●	●	●
Netherlands	●	●	●	●	●	●	●	●	●	●
Russian Federation	●	●	●	●	●	●	●	●	●	●
Singapore	●	●	●	●	●	●	●	●	●	●
States										
Connecticut	●	●	●	●	●	●	●	●	●	●
Idaho	●	●	●	●	●	●	●	●	●	●
Illinois	●	●	●	●	●	●	●	●	●	●
Indiana	●	●	●	●	●	●	●	●	●	●
Maryland	●	●	●	●	●	●	●	●	●	●
Massachusetts	●	●	●	●	●	●	●	●	●	●
Michigan	●	●	●	●	●	●	●	●	●	●
Missouri	●	●	●	●	●	●	●	●	●	●
North Carolina	●	●	●	●	●	●	●	●	●	●
Oregon	●	●	●	●	●	●	●	●	●	●
Pennsylvania	●	●	●	●	●	●	●	●	●	●
South Carolina	●	●	●	●	●	●	●	●	●	●
Texas	●	●	●	●	●	●	●	●	●	●
Districts and Consortia										
Academy School Dist. #20, CO	–	–	–	–	–	–	–	–	–	–
Chicago Public Schools, IL	●	●	●	●	●	●	●	●	●	●
Delaware Science Coalition, DE	●	●	●	●	●	●	●	●	●	●
First in the World Consort., IL	●	●	●	●	●	●	●	●	●	●
Fremont/Lincoln/WestSide PS, NE	●	●	●	●	●	●	●	●	●	●
Guilford County, NC	●	●	●	●	●	●	●	●	●	●
Jersey City Public Schools, NJ	●	●	●	●	●	●	●	●	●	●
Miami-Dade County PS, FL	●	●	●	●	●	●	●	●	●	●
Michigan Invitational Group, MI	●	●	●	●	●	●	●	●	●	●
Montgomery County, MD	●	●	●	●	●	●	●	●	●	●
Naperville Sch. Dist. #203, IL	●	●	●	●	●	●	●	●	●	●
Project SMART Consortium, OH	●	●	●	●	●	●	●	●	●	●
Rochester City Sch. Dist., NY	●	●	●	●	●	●	●	●	●	●
SW Math/Sci. Collaborative, PA	–	–	–	–	–	–	–	–	–	–



SOURCE: IEA Third International Mathematics and Science Study (TIMSS), 1998-1999.

	Collecting and graphing data from a survey	Representation and interpretation of data in graphs, charts, and tables	Arithmetic mean	Median and mode	Simple probabilities – understanding and calculations
Countries					
United States	●	●	●	●	●
Belgium (Flemish)	●	●	●	◐	●
Canada	●	●	●	●	●
Chinese Taipei	●	●	◐	◐	●
Czech Republic	●	●	●	●	◐
England	●	●	◐	◐	◐
Hong Kong, SAR	●	●	◐	◐	◐
Italy	●	●	●	◐	●
Japan	●	●	●	●	◐
Korea, Rep. of	●	●	●	◐	●
Netherlands	●	●	●	◐	◐
Russian Federation	●	●	●	●	●
Singapore	●	●	●	●	◐
States					
Connecticut	●	●	●	●	●
Idaho	●	●	●	●	●
Illinois	●	●	●	●	●
Indiana	●	●	●	●	●
Maryland	●	●	●	●	●
Massachusetts	●	●	●	●	●
Michigan	●	●	●	●	●
Missouri	●	●	●	●	●
North Carolina	●	●	●	●	●
Oregon	●	●	●	●	●
Pennsylvania	●	●	●	●	●
South Carolina	●	●	●	●	●
Texas	●	●	●	●	●
Districts and Consortia					
Academy School Dist. #20, CO	–	–	–	–	–
Chicago Public Schools, IL	●	◐	●	●	●
Delaware Science Coalition, DE	●	●	●	●	●
First in the World Consort., IL	●	●	●	●	●
Fremont/Lincoln/WestSide PS, NE	●	●	●	●	●
Guilford County, NC	●	●	●	●	●
Jersey City Public Schools, NJ	●	●	●	●	●
Miami-Dade County PS, FL	●	●	●	●	●
Michigan Invitational Group, MI	●	●	●	●	●
Montgomery County, MD	●	●	●	●	●
Naperville Sch. Dist. #203, IL	●	●	●	●	●
Project SMART Consortium, OH	●	●	●	●	●
Rochester City Sch. Dist., NY	●	●	●	●	●
SW Math/Sci. Collaborative, PA	–	–	–	–	–



SOURCE: IEA Third International Mathematics and Science Study (TIMSS), 1998-1999.

Background data provided by coordinators from participating jurisdictions.

	Cartesian coordinates of points in a plane	Coordinates of points on a given straight line	Simple two dimensional geometry – angles on a straight line, parallel lines, triangles and quadrilaterals	Congruence and similarity	Angles – (acute, right, supplementary, etc.)	Pythagorean theorem (without proof)	Symmetry and transformations (reflection and rotation)	Visualization of three-dimensional shapes	Geometric constructions with straight-edge and compass	Regular polygons and their properties – names (e.g., hexagon and octagon), sum of angles, etc.	Proofs (formal deductive demonstrations of geometric relationships)	Sine, cosine, and tangent in right-angle triangles	Nets of solids
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Countries

United States	●	●	●	●	●	●	●	●	●	●	●	●	●
Belgium (Flemish)	●	●	●	●	●	●	●	●	●	●	●	●	●
Canada	●	●	●	●	●	●	●	●	●	●	●	●	●
Chinese Taipei	●	●	●	●	●	●	●	●	●	●	●	●	●
Czech Republic	●	●	●	●	●	●	●	●	●	●	●	●	●
England	●	●	●	●	●	●	●	●	●	●	●	●	●
Hong Kong, SAR	●	●	●	●	●	●	●	●	●	●	●	●	●
Italy	●	●	●	●	●	●	●	●	●	●	●	●	●
Japan	●	●	●	●	●	●	●	●	●	●	●	●	●
Korea, Rep. of	●	●	●	●	●	●	●	●	●	●	●	●	●
Netherlands	●	●	●	●	●	●	●	●	●	●	●	●	●
Russian Federation	●	●	●	●	●	●	●	●	●	●	●	●	●
Singapore	●	●	●	●	●	●	●	●	●	●	●	●	●

States

Connecticut	●	●	●	●	●	●	●	●	●	●	●	●	●
Idaho	●	●	●	●	●	●	●	●	●	●	●	●	●
Illinois	●	●	●	●	●	●	●	●	●	●	●	●	●
Indiana	●	●	●	●	●	●	●	●	●	●	●	●	●
Maryland	●	●	●	●	●	●	●	●	●	●	●	●	●
Massachusetts	●	●	●	●	●	●	●	●	●	●	●	●	●
Michigan	●	●	●	●	●	●	●	●	●	●	●	●	●
Missouri	●	●	●	●	●	●	●	●	●	●	●	●	●
North Carolina	●	●	●	●	●	●	●	●	●	●	●	●	●
Oregon	●	●	●	●	●	●	●	●	●	●	●	●	●
Pennsylvania	●	●	●	●	●	●	●	●	●	●	●	●	●
South Carolina	●	●	●	●	●	●	●	●	●	●	●	●	●
Texas	●	●	●	●	●	●	●	●	●	●	●	●	●

Districts and Consortia

Academy School Dist. #20, CO	—	—	—	—	—	—	—	—	—	—	—	—	—
Chicago Public Schools, IL	●	●	●	●	●	●	●	●	●	●	●	●	●
Delaware Science Coalition, DE	●	●	●	●	●	●	●	●	●	●	●	●	●
First in the World Consort., IL	●	●	●	●	●	●	●	●	●	●	●	●	●
Fremont/Lincoln/WestSide PS, NE	●	●	●	●	●	●	●	●	●	●	●	●	●
Guilford County, NC	●	●	●	●	●	●	●	●	●	●	●	●	●
Jersey City Public Schools, NJ	●	●	●	●	●	●	●	●	●	●	●	●	●
Miami-Dade County PS, FL	●	●	●	●	●	●	●	●	●	●	●	●	●
Michigan Invitational Group, MI	●	●	●	●	●	●	●	●	●	●	●	●	●
Montgomery County, MD	●	●	●	●	●	●	●	●	●	●	●	●	●
Naperville Sch. Dist. #203, IL	●	●	●	●	●	●	●	●	●	●	●	●	●
Project SMART Consortium, OH	●	●	●	●	●	●	●	●	●	●	●	●	●
Rochester City Sch. Dist., NY	●	●	●	●	●	●	●	●	●	●	●	●	●
SW Math/Sci. Collaborative, PA	—	—	—	—	—	—	—	—	—	—	—	—	—

- All or almost all students (at least 90%)
- About half of the students
- Only the more able students (top track-about 25%)
- Only the most advanced students (10% or less)
- Not included in curriculum
- Data not available

SOURCE: IEA Third International Mathematics and Science Study (TIMSS), 1998-1999.

	Number patterns and simple relations	Writing expressions for general terms in number pattern sequence	Translating from verbal descriptions to symbolic expressions	Simple algebraic expressions	Evaluating simple algebraic expressions by substitution of given value of variables	Representing situations algebraically; formulas	Solving simple equations	Solving simple inequalities	Solving simultaneous equations in two variables	Interpreting linear relations	Using the graph of a relationship to interpolate/extrapolate
Countries											
United States	●	●	●	●	●	●	●	●	●	●	●
Belgium (Flemish)	●	●	●	●	●	●	●	●	●	●	●
Canada	●	●	●	●	●	●	●	●	●	●	●
Chinese Taipei	●	●	●	●	●	●	●	●	●	●	●
Czech Republic	●	●	●	●	●	●	●	●	●	●	●
England	●	●	●	●	●	●	●	●	●	●	●
Hong Kong, SAR	●	●	●	●	●	●	●	●	●	●	●
Italy	●	●	●	●	●	●	●	●	●	●	●
Japan	●	●	●	●	●	●	●	●	●	●	●
Korea, Rep. of	●	●	●	●	●	●	●	●	●	●	●
Netherlands	●	●	●	●	●	●	●	●	●	●	●
Russian Federation	●	●	●	●	●	●	●	●	●	●	●
Singapore	●	●	●	●	●	●	●	●	●	●	●
States											
Connecticut	●	●	●	●	●	●	●	●	●	●	●
Idaho	●	●	●	●	●	●	●	●	●	●	●
Illinois	●	●	●	●	●	●	●	●	●	●	●
Indiana	●	●	●	●	●	●	●	●	●	●	●
Maryland	●	●	●	●	●	●	●	●	●	●	●
Massachusetts	●	●	●	●	●	●	●	●	●	●	●
Michigan	●	●	●	●	●	●	●	●	●	●	●
Missouri	●	●	●	●	●	●	●	●	●	●	●
North Carolina	●	●	●	●	●	●	●	●	●	●	●
Oregon	●	●	●	●	●	●	●	●	●	●	●
Pennsylvania	●	●	●	●	●	●	●	●	●	●	●
South Carolina	●	●	●	●	●	●	●	●	●	●	●
Texas	●	●	●	●	●	●	●	●	●	●	●
Districts and Consortia											
Academy School Dist. #20, CO	—	—	—	—	—	—	—	—	—	—	—
Chicago Public Schools, IL	●	●	●	●	●	●	●	●	●	●	●
Delaware Science Coalition, DE	●	●	●	●	●	●	●	●	●	●	●
First in the World Consort., IL	●	●	●	●	●	●	●	●	●	●	●
Fremont/Lincoln/WestSide PS, NE	●	●	●	●	●	●	●	●	●	●	●
Guilford County, NC	●	●	●	●	●	●	●	●	●	●	●
Jersey City Public Schools, NJ	●	●	●	●	●	●	●	●	●	●	●
Miami-Dade County PS, FL	●	●	●	●	●	●	●	●	●	●	●
Michigan Invitational Group, MI	●	●	●	●	●	●	●	●	●	●	●
Montgomery County, MD	●	●	●	●	●	●	●	●	●	●	●
Naperville Sch. Dist. #203, IL	●	●	●	●	●	●	●	●	●	●	●
Project SMART Consortium, OH	●	●	●	●	●	●	●	●	●	●	●
Rochester City Sch. Dist., NY	●	●	●	●	●	●	●	●	●	●	●
SW Math/Sci. Collaborative, PA	—	—	—	—	—	—	—	—	—	—	—

- All or almost all students (at least 90%)
- About half of the students
- Only the more able students (top track-about 25%)
- Only the most advanced students (10% or less)
- Not included in curriculum
- Data not available

SOURCE: IEA Third International Mathematics and Science Study (TIMSS), 1998-1999.

Background data provided by coordinators from participating jurisdictions.

	Percentage of Students					
	Taught Topics Before This Year Only		Taught Topics During This Year ¹			Not Yet Taught 50% or More of Topics
	More Than 80% of Topics	More Than 50% Up to and Including 80% of Topics	More Than 50% of Topics Each Taught More Than 5 Periods	More Than 50% of Topics Each Taught at Least 1-5 Periods	50% or Less of Topics Taught	
Countries						
United States	8 (1.4)	9 (1.4)	34 (2.8)	48 (3.2)	1 (0.7)	0 (0.1)
Belgium (Flemish)	21 (3.0)	19 (2.3)	2 (1.0)	42 (3.7)	10 (3.6)	6 (2.9)
Canada <i>r</i>	1 (0.6)	9 (2.0)	27 (2.7)	63 (3.3)	1 (0.4)	0 (0.3)
Chinese Taipei	90 (2.4)	8 (2.1)	0 (0.0)	2 (1.1)	0 (0.0)	0 (0.0)
Czech Republic	53 (5.7)	25 (4.3)	5 (2.2)	16 (3.3)	1 (0.8)	0 (0.0)
England <i>s</i>	8 (2.4)	19 (3.3)	3 (0.9)	63 (4.8)	6 (2.1)	1 (0.6)
Hong Kong, SAR	18 (3.0)	56 (4.5)	2 (1.2)	18 (3.6)	5 (2.0)	1 (0.8)
Italy	39 (3.9)	42 (4.1)	4 (1.3)	14 (2.9)	1 (0.5)	0 (0.0)
Japan	51 (4.9)	30 (4.3)	1 (0.0)	16 (3.3)	2 (1.2)	0 (0.0)
Korea, Rep. of	10 (2.4)	14 (2.8)	11 (2.5)	57 (4.0)	6 (2.0)	2 (1.3)
Netherlands	8 (2.3)	28 (5.8)	17 (6.3)	41 (5.8)	5 (2.7)	0 (0.0)
Russian Federation	--	--	--	--	--	--
Singapore	37 (4.2)	35 (4.3)	6 (2.0)	22 (3.7)	0 (0.0)	0 (0.0)
States						
Connecticut <i>r</i>	16 (5.4)	17 (5.4)	33 (6.0)	32 (5.4)	2 (1.5)	0 (0.0)
Idaho <i>r</i>	6 (4.0)	5 (2.4)	32 (5.2)	55 (6.0)	1 (0.1)	0 (0.3)
Illinois	6 (2.3)	16 (4.8)	31 (5.3)	44 (6.2)	3 (2.1)	0 (0.0)
Indiana	6 (3.0)	7 (2.5)	36 (7.0)	49 (7.2)	3 (1.8)	0 (0.0)
Maryland <i>r</i>	13 (3.6)	26 (6.1)	17 (4.7)	44 (5.9)	0 (0.0)	0 (0.0)
Massachusetts	9 (3.3)	17 (3.8)	28 (3.3)	41 (4.8)	5 (2.3)	0 (0.0)
Michigan	18 (3.3)	25 (3.9)	18 (3.9)	38 (5.2)	1 (1.3)	0 (0.0)
Missouri	5 (2.3)	10 (2.1)	26 (5.3)	58 (5.7)	1 (0.9)	0 (0.0)
North Carolina	3 (2.0)	6 (3.1)	26 (5.2)	64 (6.0)	1 (0.0)	0 (0.0)
Oregon	5 (2.2)	11 (3.5)	25 (3.9)	59 (5.0)	0 (0.0)	0 (0.0)
<i>Pennsylvania</i>	11 (6.2)	15 (2.9)	21 (3.4)	53 (7.0)	1 (0.6)	0 (0.0)
South Carolina	9 (3.6)	13 (4.0)	26 (5.3)	52 (5.7)	0 (0.0)	0 (0.0)
<i>Texas</i>	13 (4.8)	9 (3.0)	28 (5.2)	48 (7.3)	0 (0.0)	2 (1.3)
Districts and Consortia						
Academy School Dist. #20, CO	18 (0.3)	17 (0.3)	22 (0.4)	43 (0.4)	0 (0.0)	0 (0.0)
Chicago Public Schools, IL	0 (0.0)	2 (0.2)	55 (10.7)	41 (10.6)	2 (0.2)	0 (0.0)
Delaware Science Coalition, DE <i>r</i>	14 (4.9)	24 (6.0)	27 (6.5)	34 (5.5)	0 (0.0)	1 (0.5)
First in the World Consort., IL <i>r</i>	14 (4.1)	28 (3.7)	18 (4.7)	40 (3.0)	0 (0.0)	0 (0.0)
Fremont/Lincoln/WestSide PS, NE	3 (0.1)	0 (0.0)	33 (7.7)	64 (7.7)	0 (0.0)	0 (0.0)
Guilford County, NC	7 (2.2)	11 (3.7)	18 (5.9)	64 (6.6)	0 (0.0)	0 (0.0)
Jersey City Public Schools, NJ	6 (4.2)	6 (5.1)	42 (4.0)	46 (3.8)	0 (0.0)	0 (0.0)
Miami-Dade County PS, FL <i>s</i>	7 (4.5)	8 (5.8)	24 (6.8)	58 (11.3)	1 (0.1)	2 (0.3)
Michigan Invitational Group, MI	8 (5.6)	27 (7.1)	8 (2.1)	55 (7.8)	2 (0.1)	0 (0.0)
Montgomery County, MD <i>s</i>	30 (5.9)	20 (4.0)	14 (4.4)	35 (5.1)	0 (0.0)	0 (0.0)
Naperville Sch. Dist. #203, IL	6 (2.0)	22 (2.5)	6 (1.0)	66 (3.5)	0 (0.0)	0 (0.0)
Project SMART Consortium, OH	18 (5.3)	4 (2.0)	34 (6.9)	42 (6.7)	2 (2.5)	0 (0.2)
Rochester City Sch. Dist., NY	11 (4.2)	7 (2.6)	15 (2.0)	63 (4.5)	4 (1.0)	0 (0.0)
SW Math/Sci. Collaborative, PA	7 (3.4)	23 (4.3)	20 (4.9)	47 (6.1)	3 (0.2)	0 (0.0)
International Avg. (All Countries)	26 (0.5)	24 (0.6)	11 (0.5)	34 (0.6)	4 (0.3)	1 (0.2)

SOURCE: IEA Third International Mathematics and Science Study (TIMSS), 1998-1999.

Background data provided by teachers.

* Categories of topic coverage for fractions and number sense are based on combined responses to questions about the individual mathematics subtopics in the content area described in Exhibit 5.20.

¹ For each topic in Exhibit 5.20, teachers were asked if the topic was taught before this year, taught 1-5 periods this year, taught more than 5 periods this year, or not yet taught. Topics taught during this year are included in this category regardless if taught before this year.

States in *italics* did not fully satisfy guidelines for sample participation rates (see Appendix A for details).

() Standard errors appear in parentheses. Because results are rounded to the nearest whole number, some totals may appear inconsistent.

A dash (-) indicates data are not available.

An "r" indicates teacher response data available for 70-84% of students. An "s" indicates teacher response data available for 50-69% of students.

	Percentage of Students					
	Taught Topics Before This Year Only		Taught Topics During This Year ¹			Not Yet Taught 50% or More of Topics
	More Than 80% of Topics	More Than 50% Up to and Including 80% of Topics	More Than 50% of Topics Each Taught More Than 5 Periods	More Than 50% of Topics Each Taught at Least 1-5 Periods	50% or Less of Topics Taught	
Countries						
United States	10 (2.2)	11 (1.9)	16 (2.9)	54 (3.6)	3 (0.9)	6 (1.4)
Belgium (Flemish)	33 (3.5)	27 (3.8)	4 (3.4)	19 (3.0)	13 (3.7)	3 (1.4)
Canada <i>r</i>	1 (0.5)	8 (1.6)	21 (2.9)	56 (3.4)	11 (1.4)	2 (0.8)
Chinese Taipei	20 (3.6)	53 (4.4)	3 (1.4)	5 (1.8)	17 (3.3)	2 (1.4)
Czech Republic	50 (5.9)	29 (5.0)	4 (2.0)	14 (3.4)	4 (1.7)	0 (0.0)
England <i>s</i>	8 (2.4)	18 (2.7)	5 (1.3)	58 (3.8)	8 (1.5)	3 (0.9)
Hong Kong, SAR	15 (3.1)	28 (4.2)	5 (1.8)	41 (4.4)	10 (2.8)	1 (1.1)
Italy	29 (3.8)	42 (4.0)	7 (2.3)	15 (2.9)	7 (1.8)	1 (0.6)
Japan	49 (4.6)	26 (4.3)	1 (0.8)	8 (2.1)	5 (2.0)	12 (2.9)
Korea, Rep. of	11 (2.5)	19 (3.3)	8 (2.4)	49 (4.1)	7 (2.0)	6 (1.7)
Netherlands <i>r</i>	6 (3.3)	8 (2.7)	15 (6.2)	51 (6.8)	15 (3.6)	7 (4.7)
Russian Federation	--	--	--	--	--	--
Singapore	39 (4.8)	32 (4.6)	8 (2.5)	19 (3.7)	2 (1.1)	0 (0.0)
States						
Connecticut <i>r</i>	15 (3.7)	17 (5.7)	28 (5.7)	30 (6.2)	6 (2.6)	4 (2.3)
Idaho <i>r</i>	12 (4.6)	4 (2.2)	13 (4.1)	55 (7.1)	3 (1.8)	13 (5.0)
Illinois	12 (4.0)	9 (2.3)	17 (4.4)	58 (5.7)	2 (1.4)	2 (1.5)
Indiana	5 (2.9)	14 (4.5)	15 (3.6)	44 (7.3)	20 (7.2)	2 (1.5)
Maryland <i>r</i>	21 (4.5)	18 (4.9)	9 (3.5)	44 (5.3)	4 (2.2)	4 (2.2)
Massachusetts <i>r</i>	15 (4.9)	17 (4.0)	20 (4.6)	37 (4.2)	6 (2.7)	5 (2.7)
Michigan	19 (4.4)	18 (3.9)	10 (3.8)	45 (6.3)	5 (2.5)	2 (1.3)
Missouri	5 (2.3)	11 (2.7)	12 (3.2)	61 (5.5)	5 (2.4)	5 (3.2)
North Carolina	8 (1.9)	7 (2.5)	12 (3.3)	64 (4.9)	5 (2.3)	5 (2.3)
Oregon	2 (1.6)	15 (4.3)	15 (4.4)	60 (6.8)	6 (3.3)	2 (0.9)
Pennsylvania	15 (6.6)	11 (3.2)	13 (3.6)	47 (4.1)	10 (5.5)	4 (1.7)
South Carolina	12 (4.5)	10 (3.6)	15 (3.8)	62 (5.3)	1 (0.3)	0 (0.0)
Texas	18 (5.2)	5 (2.5)	15 (3.3)	61 (6.3)	1 (0.1)	0 (0.0)
Districts and Consortia						
Academy School Dist. #20, CO	2 (0.1)	20 (0.4)	16 (0.3)	38 (0.3)	14 (0.2)	10 (0.3)
Chicago Public Schools, IL	7 (5.5)	0 (0.0)	35 (7.2)	58 (10.3)	0 (0.0)	0 (0.0)
Delaware Science Coalition, DE <i>r</i>	13 (6.2)	11 (5.2)	17 (6.1)	57 (7.5)	2 (0.1)	1 (0.1)
First in the World Consort., IL <i>r</i>	11 (3.6)	5 (2.6)	16 (7.8)	65 (7.8)	0 (0.0)	3 (0.2)
Fremont/Lincoln/WestSide PS, NE <i>r</i>	13 (1.2)	9 (0.2)	3 (0.1)	54 (6.7)	10 (0.5)	11 (6.7)
Guilford County, NC	15 (5.1)	17 (4.2)	12 (4.4)	46 (6.9)	8 (4.4)	3 (0.1)
Jersey City Public Schools, NJ <i>r</i>	9 (4.2)	0 (0.0)	38 (6.5)	53 (6.8)	0 (0.0)	0 (0.0)
Miami-Dade County PS, FL <i>s</i>	4 (3.6)	3 (2.6)	19 (5.0)	50 (6.9)	13 (8.3)	11 (5.3)
Michigan Invitational Group, MI	14 (5.4)	18 (6.8)	10 (4.6)	50 (10.3)	8 (3.0)	0 (0.0)
Montgomery County, MD <i>s</i>	36 (2.7)	13 (2.2)	10 (5.1)	34 (7.0)	7 (3.3)	0 (0.0)
Naperville Sch. Dist. #203, IL	6 (3.1)	27 (5.1)	8 (0.3)	53 (5.0)	6 (0.2)	0 (0.0)
Project SMART Consortium, OH	7 (3.7)	3 (2.3)	26 (6.4)	63 (6.2)	0 (0.0)	0 (0.0)
Rochester City Sch. Dist., NY	4 (1.8)	30 (5.7)	2 (0.0)	51 (5.0)	6 (2.5)	7 (2.0)
SW Math/Sci. Collaborative, PA	11 (3.5)	16 (4.1)	20 (6.0)	38 (4.8)	10 (4.6)	6 (4.3)
International Avg. (All Countries)	22 (0.6)	23 (0.6)	8 (0.4)	32 (0.7)	8 (0.4)	6 (0.4)

SOURCE: IEA Third International Mathematics and Science Study (TIMSS), 1998-1999.

Background data provided by teachers.

* Categories of topic coverage for measurement are based on combined responses to questions about the individual mathematics subtopics in the content area described in Exhibit 5.21.

¹ For each topic in Exhibit 5.21, teachers were asked if the topic was taught before this year, taught 1-5 periods this year, taught more than 5 periods this year, or not yet taught. Topics taught during this year are included in this category regardless if taught before this year.

States in *italics* did not fully satisfy guidelines for sample participation rates (see Appendix A for details).

() Standard errors appear in parentheses. Because results are rounded to the nearest whole number, some totals may appear inconsistent.

A dash (–) indicates data are not available.

An "r" indicates teacher response data available for 70-84% of students. An "s" indicates teacher response data available for 50-69% of students.

	Percentage of Students					
	Taught Topics Before This Year Only		Taught Topics During This Year ¹			Not Yet Taught 50% or More of Topics
	More Than 80% of Topics	More Than 50% Up to and Including 80% of Topics	More Than 50% of Topics Each Taught More Than 5 Periods	More Than 50% of Topics Each Taught at Least 1-5 Periods	50% or Less of Topics Taught	
Countries						
United States	6 (1.5)	7 (2.5)	26 (2.4)	53 (3.2)	2 (1.1)	6 (1.3)
Belgium (Flemish)	8 (1.6)	23 (3.0)	0 (0.0)	27 (4.2)	24 (3.0)	18 (4.2)
Canada	2 (0.8)	5 (1.6)	27 (3.2)	45 (3.4)	8 (0.8)	13 (3.0)
Chinese Taipei	2 (1.2)	3 (1.4)	1 (0.8)	1 (0.7)	1 (0.0)	92 (2.1)
Czech Republic	2 (1.7)	24 (5.1)	1 (1.0)	7 (2.1)	13 (3.8)	52 (5.3)
England	7 (1.7)	15 (3.2)	11 (2.2)	62 (3.9)	3 (1.3)	3 (0.7)
Hong Kong, SAR	3 (1.6)	13 (3.1)	1 (0.9)	7 (2.3)	6 (2.2)	70 (4.2)
Italy	2 (1.1)	17 (2.8)	10 (2.2)	33 (3.9)	4 (1.5)	34 (3.4)
Japan	2 (1.2)	8 (2.7)	1 (0.7)	12 (2.9)	10 (2.6)	68 (4.2)
Korea, Rep. of	3 (1.3)	23 (3.4)	21 (3.2)	38 (4.0)	10 (2.5)	4 (1.6)
Netherlands	0 (0.0)	7 (2.6)	17 (5.8)	48 (6.6)	6 (2.3)	22 (5.7)
Russian Federation	--	--	--	--	--	--
Singapore	2 (1.4)	2 (1.3)	28 (3.7)	54 (3.2)	1 (0.0)	13 (3.3)
States						
Connecticut	8 (2.7)	13 (5.3)	37 (6.7)	39 (5.9)	2 (1.5)	1 (0.1)
Idaho	6 (2.6)	12 (4.2)	18 (4.9)	53 (8.2)	1 (0.1)	10 (3.6)
Illinois	8 (3.2)	6 (2.5)	26 (5.0)	56 (6.1)	3 (2.0)	2 (1.0)
Indiana	3 (2.0)	6 (3.3)	28 (5.6)	48 (6.1)	5 (2.4)	10 (6.6)
Maryland	2 (1.4)	4 (1.7)	44 (5.1)	48 (4.6)	2 (1.7)	0 (0.0)
Massachusetts	8 (2.8)	5 (2.4)	34 (5.7)	42 (6.2)	7 (2.2)	5 (2.0)
Michigan	13 (4.1)	11 (3.1)	17 (3.8)	53 (4.3)	3 (1.4)	3 (1.5)
Missouri	7 (2.1)	6 (2.4)	19 (5.1)	65 (6.9)	1 (0.0)	3 (2.0)
North Carolina	1 (0.9)	7 (2.6)	21 (4.4)	56 (4.6)	4 (2.9)	10 (3.6)
Oregon	3 (1.8)	4 (2.5)	33 (5.3)	56 (5.3)	1 (0.1)	3 (1.0)
Pennsylvania	10 (3.2)	9 (4.7)	17 (3.7)	53 (7.5)	1 (0.6)	10 (2.8)
South Carolina	5 (2.1)	11 (4.5)	26 (6.2)	56 (7.4)	2 (0.1)	0 (0.0)
Texas	6 (3.0)	5 (3.1)	31 (4.7)	57 (4.7)	0 (0.0)	0 (0.3)
Districts and Consortia						
Academy School Dist. #20, CO	8 (0.3)	4 (0.1)	28 (0.3)	52 (0.4)	3 (0.0)	5 (0.3)
Chicago Public Schools, IL	0 (0.0)	0 (0.0)	36 (10.7)	63 (10.8)	0 (0.0)	1 (1.3)
Delaware Science Coalition, DE	8 (4.8)	5 (3.6)	44 (7.3)	37 (6.5)	0 (0.0)	6 (3.2)
First in the World Consort., IL	14 (4.5)	11 (5.6)	13 (4.0)	62 (8.2)	0 (0.0)	0 (0.0)
Fremont/Lincoln/WestSide PS, NE	5 (5.2)	12 (6.9)	17 (7.1)	55 (9.8)	5 (5.3)	5 (2.8)
Guilford County, NC	7 (2.5)	10 (5.1)	15 (4.4)	55 (6.0)	0 (0.0)	13 (3.7)
Jersey City Public Schools, NJ	6 (4.2)	0 (0.0)	49 (5.5)	45 (4.9)	0 (0.0)	0 (0.0)
Miami-Dade County PS, FL	6 (4.0)	8 (7.1)	20 (5.2)	59 (7.4)	0 (0.0)	6 (4.1)
Michigan Invitational Group, MI	12 (5.2)	5 (3.5)	31 (8.6)	47 (8.5)	5 (5.2)	0 (0.0)
Montgomery County, MD	6 (3.4)	12 (3.5)	26 (5.4)	48 (5.1)	7 (4.3)	2 (0.2)
Naperville Sch. Dist. #203, IL	2 (1.9)	0 (0.0)	18 (3.5)	80 (2.6)	0 (0.0)	0 (0.0)
Project SMART Consortium, OH	4 (2.7)	1 (0.7)	23 (5.5)	70 (6.5)	0 (0.0)	3 (2.6)
Rochester City Sch. Dist., NY	6 (3.7)	19 (4.3)	20 (3.3)	40 (4.3)	6 (0.2)	9 (1.8)
SW Math/Sci. Collaborative, PA	14 (5.5)	13 (3.8)	18 (5.9)	43 (6.9)	4 (2.7)	8 (4.5)
International Avg. (All Countries)	5 (0.3)	14 (0.5)	9 (0.4)	30 (0.6)	7 (0.4)	34 (0.6)

SOURCE: IEA Third International Mathematics and Science Study (TIMSS), 1998-1999.

Background data provided by teachers.

* Categories of topic coverage for data representation, analysis, and probability are based on combined responses to questions about the individual mathematics subtopics in the content area described in Exhibit 5.22.

¹ For each topic in Exhibit 5.22, teachers were asked if the topic was taught before this year, taught 1-5 periods this year, taught more than 5 periods this year, or not yet taught. Topics taught during this year are included in this category regardless if taught before this year.

States in *italics* did not fully satisfy guidelines for sample participation rates (see Appendix A for details).

() Standard errors appear in parentheses. Because results are rounded to the nearest whole number, some totals may appear inconsistent.

A dash (-) indicates data are not available.

An "r" indicates teacher response data available for 70-84% of students. An "s" indicates teacher response data available for 50-69% of students.

	Percentage of Students					
	Taught Topics Before This Year Only		Taught Topics During This Year ¹			Not Yet Taught 50% or More of Topics
	More Than 80% of Topics	More Than 50% Up to and Including 80% of Topics	More Than 50% of Topics Each Taught More Than 5 Periods	More Than 50% of Topics Each Taught at Least 1-5 Periods	50% or Less of Topics Taught	
Countries						
United States	3 (1.0)	7 (1.4)	14 (2.2)	42 (2.9)	10 (2.0)	25 (2.9)
Belgium (Flemish)	0 (0.0)	5 (1.4)	10 (1.9)	47 (3.5)	15 (2.1)	22 (2.4)
Canada <i>r</i>	2 (0.5)	3 (1.0)	14 (2.9)	52 (3.2)	12 (2.2)	18 (2.6)
Chinese Taipei	1 (0.0)	1 (0.5)	6 (2.1)	18 (3.3)	42 (4.1)	33 (4.1)
Czech Republic	35 (4.6)	23 (4.8)	4 (2.3)	17 (3.1)	17 (3.8)	4 (1.9)
England <i>s</i>	13 (2.4)	18 (3.1)	2 (0.8)	29 (2.5)	23 (3.4)	15 (2.7)
Hong Kong, SAR	13 (2.7)	21 (3.5)	5 (2.0)	16 (2.7)	30 (4.0)	14 (3.2)
Italy	2 (1.0)	10 (2.8)	9 (2.2)	29 (3.6)	41 (3.9)	9 (2.3)
Japan	2 (1.5)	21 (3.2)	8 (2.4)	35 (4.1)	32 (4.4)	1 (1.0)
Korea, Rep. of	5 (1.8)	6 (1.8)	12 (2.4)	57 (4.4)	19 (3.4)	1 (0.0)
Netherlands	3 (1.3)	17 (4.5)	15 (5.1)	24 (5.1)	25 (4.8)	17 (4.9)
Russian Federation	--	--	--	--	--	--
Singapore	1 (0.0)	1 (0.0)	24 (4.1)	62 (4.4)	5 (2.0)	7 (2.4)
States						
Connecticut <i>r</i>	1 (1.2)	10 (4.6)	8 (3.4)	34 (6.9)	8 (4.5)	39 (6.5)
Idaho <i>r</i>	3 (2.2)	6 (2.7)	7 (2.4)	43 (7.6)	8 (4.3)	32 (5.6)
Illinois	6 (2.2)	11 (4.2)	10 (3.1)	49 (6.3)	10 (3.9)	13 (3.7)
Indiana	2 (1.3)	8 (3.4)	8 (3.4)	37 (7.5)	19 (5.1)	27 (5.8)
Maryland <i>r</i>	4 (1.9)	11 (3.5)	10 (2.3)	31 (6.4)	13 (4.6)	32 (5.8)
Massachusetts <i>r</i>	2 (1.5)	9 (3.1)	13 (3.8)	31 (6.0)	7 (2.8)	38 (5.7)
Michigan <i>r</i>	8 (3.7)	17 (4.8)	16 (4.5)	41 (5.4)	5 (2.8)	14 (3.1)
Missouri	4 (1.9)	5 (2.5)	4 (2.0)	62 (6.1)	7 (2.2)	19 (5.3)
North Carolina	1 (1.1)	6 (2.3)	14 (3.2)	64 (4.7)	4 (1.8)	12 (3.5)
Oregon	0 (0.0)	2 (1.4)	14 (4.6)	64 (6.5)	5 (2.7)	15 (4.3)
Pennsylvania	7 (6.0)	7 (2.9)	6 (2.2)	43 (5.1)	9 (2.9)	28 (7.4)
South Carolina	1 (1.0)	8 (3.7)	15 (4.5)	59 (6.9)	6 (2.8)	10 (3.2)
Texas	4 (1.9)	9 (3.3)	11 (2.6)	63 (4.8)	9 (3.9)	4 (2.3)
Districts and Consortia						
Academy School Dist. #20, CO	2 (0.1)	0 (0.0)	21 (0.3)	22 (0.3)	6 (0.1)	49 (0.4)
Chicago Public Schools, IL	2 (2.4)	6 (0.6)	17 (7.3)	55 (8.4)	1 (0.7)	19 (5.1)
Delaware Science Coalition, DE <i>r</i>	0 (0.0)	10 (5.2)	21 (6.3)	38 (7.4)	11 (2.2)	20 (5.0)
First in the World Consort., IL	3 (1.0)	11 (3.5)	24 (9.2)	36 (9.1)	20 (4.9)	6 (3.0)
Fremont/Lincoln/WestSide PS, NE <i>r</i>	0 (0.0)	14 (1.4)	22 (1.3)	31 (8.6)	7 (3.6)	26 (9.7)
Guilford County, NC	0 (0.0)	19 (3.4)	18 (5.4)	41 (6.5)	9 (5.4)	13 (4.9)
Jersey City Public Schools, NJ	4 (3.8)	2 (1.9)	36 (6.3)	53 (6.1)	2 (0.1)	3 (0.3)
Miami-Dade County PS, FL <i>s</i>	0 (0.0)	3 (2.7)	0 (0.0)	41 (7.8)	13 (6.2)	44 (9.6)
Michigan Invitational Group, MI	0 (0.0)	19 (5.5)	19 (6.2)	28 (8.6)	25 (6.7)	9 (3.5)
Montgomery County, MD <i>s</i>	13 (3.9)	13 (3.7)	15 (3.1)	46 (4.3)	12 (3.7)	0 (0.0)
Naperville Sch. Dist. #203, IL	2 (1.9)	13 (2.7)	10 (0.9)	56 (3.8)	17 (2.5)	3 (2.6)
Project SMART Consortium, OH	1 (0.7)	3 (2.0)	6 (3.5)	69 (7.2)	4 (2.8)	17 (5.6)
Rochester City Sch. Dist., NY	2 (1.8)	8 (3.5)	4 (1.0)	39 (5.6)	17 (3.8)	30 (4.1)
SW Math/Sci. Collaborative, PA	6 (3.5)	5 (2.9)	11 (3.0)	42 (5.8)	18 (6.7)	19 (5.4)
International Avg. (All Countries)	6 (0.3)	10 (0.5)	9 (0.4)	33 (0.6)	20 (0.6)	22 (0.5)

SOURCE: IEA Third International Mathematics and Science Study (TIMSS), 1998-1999.

Background data provided by teachers.

 States in *italics* did not fully satisfy guidelines for sample participation rates (see Appendix A for details).

* Categories of topic coverage for geometry are based on combined responses to questions about the individual mathematics subtopics in the content area described in Exhibit 5.23.

() Standard errors appear in parentheses. Because results are rounded to the nearest whole number, some totals may appear inconsistent.

¹ For each topic in Exhibit 5.23, teachers were asked if the topic was taught before this year, taught 1-5 periods this year, taught more than 5 periods this year, or not yet taught. Topics taught during this year are included in this category regardless if taught before this year.

A dash (-) indicates data are not available.

An "r" indicates teacher response data available for 70-84% of students. An "s" indicates teacher response data available for 50-69% of students.

	Percentage of Students					
	Taught Topics Before This Year Only		Taught Topics During This Year ¹			Not Yet Taught 50% or More of Topics
	More Than 80% of Topics	More Than 50% Up to and Including 80% of Topics	More Than 50% of Topics Each Taught More Than 5 Periods	More Than 50% of Topics Each Taught at Least 1-5 Periods	50% or Less of Topics Taught	
Countries						
United States	3 (1.2)	0 (0.3)	62 (2.7)	32 (2.6)	0 (0.2)	2 (0.9)
Belgium (Flemish) <i>r</i>	1 (0.7)	9 (1.9)	20 (2.9)	43 (3.6)	11 (2.1)	16 (3.2)
Canada <i>r</i>	1 (0.5)	1 (0.4)	54 (3.0)	38 (2.6)	0 (0.0)	6 (2.3)
Chinese Taipei	28 (3.6)	57 (4.0)	4 (1.7)	8 (2.1)	2 (1.1)	1 (0.0)
Czech Republic	2 (1.2)	3 (1.5)	69 (5.0)	20 (4.4)	5 (2.4)	2 (1.7)
England <i>s</i>	0 (0.0)	8 (2.4)	21 (2.9)	60 (3.3)	4 (1.3)	7 (1.4)
Hong Kong, SAR	4 (1.6)	19 (3.3)	25 (4.0)	43 (3.9)	10 (2.7)	1 (0.0)
Italy	0 (0.0)	1 (0.0)	67 (3.7)	28 (3.3)	0 (0.0)	4 (1.5)
Japan	5 (2.3)	30 (4.2)	38 (3.9)	25 (4.0)	2 (1.1)	0 (0.0)
Korea, Rep. of	5 (1.7)	9 (2.5)	36 (4.0)	48 (4.0)	1 (0.0)	1 (0.7)
Netherlands	1 (0.1)	2 (1.1)	32 (6.4)	34 (6.2)	12 (3.9)	19 (6.0)
Russian Federation	--	--	--	--	--	--
Singapore	2 (1.1)	18 (3.4)	32 (3.9)	48 (4.8)	1 (1.0)	0 (0.0)
States						
Connecticut <i>r</i>	4 (2.8)	1 (0.1)	76 (6.2)	13 (4.3)	0 (0.0)	6 (2.7)
Idaho <i>r</i>	0 (0.0)	4 (0.2)	63 (6.3)	21 (5.3)	0 (0.0)	12 (5.3)
Illinois	1 (0.7)	2 (1.4)	69 (5.7)	28 (5.1)	0 (0.0)	1 (0.1)
Indiana	0 (0.0)	0 (0.0)	70 (5.7)	24 (5.3)	0 (0.0)	6 (2.4)
Maryland <i>r</i>	3 (1.4)	0 (0.0)	56 (5.1)	32 (4.4)	0 (0.0)	9 (3.4)
Massachusetts <i>r</i>	0 (0.5)	1 (1.3)	64 (6.1)	29 (5.2)	1 (0.9)	4 (2.4)
Michigan	2 (1.3)	4 (2.9)	69 (5.2)	24 (5.8)	0 (0.0)	2 (1.1)
Missouri	1 (1.4)	2 (1.2)	51 (6.5)	45 (6.9)	0 (0.0)	1 (1.0)
North Carolina	0 (0.0)	0 (0.2)	58 (6.4)	42 (6.4)	0 (0.0)	0 (0.0)
Oregon	1 (0.6)	0 (0.0)	58 (5.8)	41 (5.7)	0 (0.0)	1 (0.4)
Pennsylvania	1 (0.1)	5 (4.4)	70 (6.6)	22 (3.2)	0 (0.0)	1 (0.9)
South Carolina	1 (0.6)	1 (1.1)	65 (7.5)	29 (6.7)	0 (0.0)	3 (1.7)
Texas	1 (0.1)	3 (2.6)	51 (6.3)	43 (6.1)	0 (0.0)	2 (1.5)
Districts and Consortia						
Academy School Dist. #20, CO	6 (0.3)	0 (0.0)	72 (0.4)	20 (0.3)	0 (0.0)	2 (0.1)
Chicago Public Schools, IL	0 (0.0)	0 (0.0)	68 (10.4)	32 (10.4)	0 (0.0)	0 (0.0)
Delaware Science Coalition, DE <i>r</i>	0 (0.0)	0 (0.0)	80 (6.2)	15 (5.3)	0 (0.0)	5 (3.3)
First in the World Consort., IL <i>r</i>	4 (2.9)	5 (1.0)	75 (6.4)	16 (5.9)	0 (0.0)	0 (0.0)
Fremont/Lincoln/WestSide PS, NE	0 (0.0)	0 (0.0)	73 (8.2)	27 (8.2)	0 (0.0)	0 (0.0)
Guilford County, NC	0 (0.0)	2 (0.6)	63 (4.5)	35 (4.4)	0 (0.0)	0 (0.0)
Jersey City Public Schools, NJ <i>r</i>	6 (4.2)	0 (0.0)	54 (6.7)	39 (6.1)	0 (0.0)	0 (0.0)
Miami-Dade County PS, FL <i>s</i>	0 (0.0)	0 (0.0)	61 (10.7)	29 (9.7)	3 (0.5)	7 (4.1)
Michigan Invitational Group, MI	0 (0.0)	0 (0.0)	77 (5.6)	17 (5.1)	4 (0.6)	2 (2.2)
Montgomery County, MD <i>s</i>	8 (4.3)	1 (0.4)	56 (4.7)	31 (3.3)	0 (0.0)	5 (3.2)
Naperville Sch. Dist. #203, IL	2 (1.9)	2 (0.4)	69 (2.3)	27 (0.9)	0 (0.0)	0 (0.0)
Project SMART Consortium, OH	1 (1.1)	0 (0.0)	60 (6.6)	33 (7.6)	0 (0.0)	6 (4.4)
Rochester City Sch. Dist., NY	0 (0.0)	2 (1.7)	43 (4.9)	48 (4.8)	0 (0.0)	7 (2.0)
SW Math/Sci. Collaborative, PA	0 (0.0)	2 (1.8)	57 (6.9)	38 (7.0)	2 (1.8)	1 (0.1)
International Avg. (All Countries)	4 (0.3)	11 (0.4)	33 (0.7)	40 (0.7)	4 (0.3)	8 (0.4)

SOURCE: IEA Third International Mathematics and Science Study (TIMSS), 1998-1999.

Background data provided by teachers.

* Categories of topic coverage for algebra are based on combined responses to questions about the individual mathematics subtopics in the content area described in Exhibit 5.24.

¹ For each topic in Exhibit 5.24, teachers were asked if the topic was taught before this year, taught 1-5 periods this year, taught more than 5 periods this year, or not yet taught. Topics taught during this year are included in this category regardless if taught before this year.

States in *italics* did not fully satisfy guidelines for sample participation rates (see Appendix A for details).

() Standard errors appear in parentheses. Because results are rounded to the nearest whole number, some totals may appear inconsistent.

A dash (-) indicates data are not available.

An "r" indicates teacher response data available for 70-84% of students. An "s" indicates teacher response data available for 50-69% of students.