TIMSS & PIRLS 2011 Curriculum Questionnaire

GENERAL MODULE

To be completed by all countries participating in TIMSS and/or PIRLS

1. What is your country's name for the grade(s) tested in TIMSS and/or PIRLS 2011, in English (e.g., grade 4, grade 8)?

2. In your country, what is the stated official policy or regulation on students' age of entry to primary school (ISCED Level 1)?

   Examples: "Children begin school during the calendar year of their 6th birthday"; "Children must be 6 years old by the end of June to begin school the following September".

   A. If the official policy allows some parental discretion or choice, please describe the usual practice.

   Example: "Even though the official policy is that students can begin school in the year when they turn 6 years old, children typically begin primary school at age 7 because their parents feel they will benefit from being more mature".

B. Has the stated official policy changed in the last 10 years?

*Check **one** circle only.*

Yes--- ◯

No--- ◯

If Yes….

C. How did the policy change, and when was the change made?

Questions 3-5 ask about the years of schooling provided in your country, beginning with preprimary education.

3. Is preprimary education (ISCED Level 0) mandatory for children in your country?

*Check **one** circle only.*

Yes--- ◯
No--- ◯

If Yes….

A. How many years are students required to attend preprimary education?

1 year--------- ◯
2 years-------- ◯
3 years-------- ◯
More than 3 years---- ◯

If No….

B. What types of preprimary education are available, but not mandatory?

*Check **one** circle for each line.*

	Yes	**No**
a) Public preprimary education ----------	◯	◯
b) Licensed early childhood education providers------	◯	◯
c) Other---------- Please specify: _____	◯	◯

Any other comments about preprimary education:

4. What are the ages and/or grades of compulsory education in your country?

   Example: "Ages 6-16; Grades 1-9".

5. Beginning with ISCED Level 1, what grades of schooling are provided to students through ISCED Level 3 (upper secondary)?

   Example: "Grades 1-12".

6. Does your country have a national curriculum for preprimary education (ISCED Level 0)?

*Check **one** circle only.*

Yes--- ◯

No--- ◯

If Yes….

A. Are language, reading, and writing skills part of the preprimary curriculum?

*Check **one** circle only.*

Yes--- ◯

No--- ◯

Please describe:

B. Is mathematics (e.g., counting, learning shapes) part of the preprimary curriculum?

*Check **one** circle only.*

Yes--- ◯

No--- ◯

Please describe:

C. Is science (e.g., nature study, weather) part of the preprimary curriculum?

*Check **one** circle only.*

Yes--- ◯

No--- ◯

Please describe:

7. Does your country have a policy on the promotion and retention of students across grades 1-8?

Example: "Automatic promotion for grades 1-5, dependent on academic progress for grades 6-8".

*Check **one** circle only.*

Yes--- ◯

No--- ◯

Please describe:

8. Does your country have a nationally mandated number of school days per year?

*Check **one** circle only.*

Yes--- ◯

No--- ◯

Please describe:

9. What is the **main** preparation route(s) for teachers of students in the **fourth grade**?

   Example: "Most teachers receive their education through a university degree program. Some have attended a teacher college program, but that is becoming less common".

A. According to the **main** teacher preparation route, what are the current requirements for being a teacher of students in the **fourth grade**?

*Check **one** circle for each line.*

	Yes	**No**
a) Supervised practicum during the teacher education program---------- *If Yes…* How long is this period? _____	○	○
b) Passing a qualifying examination (e.g., licensing, certification)----------	○	○
c) Completion of a probationary teaching period------ *If Yes…* How long is this period? _____	○	○
d) Completion of a mentoring or induction program (e.g., experienced teachers work with novice teachers to provide instructional guidance) ---------	○	○
e) Other---------- Please specify: _____	○	○

B. If the main preparation route(s) for teachers of students in the **eighth grade** is different, what is their **main** preparation route?

C. If the requirements are different than the fourth grade, what are the current requirements for being a teacher of students in the **eighth grade**?

*Check **one** circle for each line.*

	Yes	**No**
a) Supervised practicum during the teacher education program---------- *If Yes…* How long is this period? _____	○	○
b) Passing a qualifying examination (e.g., licensing, certification)----------	○	○
c) Completion of a probationary teaching period------ *If Yes…* How long is this period? _____	○	○
d) Completion of a mentoring or induction program (e.g., experienced teachers work with novice teachers to provide instructional guidance) ---------	○	○
e) Other---------- Please specify: _____	○	○

10. A. Does an educational authority in your country (e.g., National Ministry of Education) administer examinations in the following subjects that have consequences for individual students, such as entry to a higher school system, entry to a university, and/or exiting or graduating from secondary school?

*Check **one** circle for each line.*

	Yes	**No**
a) Language(s) ----------	◯	◯
b) Mathematics----------	◯	◯
c) Science----------	◯	◯

B. Please describe the grades at which the exams are given and the purpose of each exam.

Example: "There is an exam including language and mathematics given at the end of grade 8 to determine placement for entry to secondary school."

C. Does your country have a national or regional policy to make accommodations for students with special needs taking national or regional tests?

Examples: "Providing materials in Braille for visually impaired students"; "Providing instructions in sign language for hearing impaired students".

*Check **one** circle only.*

Yes--- ◯

No--- ◯

If Yes…
What is the policy?

D. If there are not exams, is there a similar process that has consequences for individual students?

Example: "Teacher recommendations"

11. Is there a national/regional policy to encourage parental involvement in the schools attended by **fourth-grade** students?

    Example: "Parents must be included in school governing bodies".

    *Check **one** circle only.*

    Yes--- ◯

    No--- ◯

    If Yes…
    What is the policy?

    If No…
    Comments:

12. Is there a national/regional policy to encourage parental involvement in the schools attended by **eighth-grade** students?

*Check **one** circle only.*

Yes, same as fourth grade--- ◯

Yes, but different than fourth grade--- ◯

No--- ◯

If different from fourth grade…
What is the policy?

MATHEMATICS MODULE
GRADE 8
(TIMSS Grade 8 Module, Part 1)

To be completed by all countries participating in TIMSS at the eighth grade

1. Does your country have a national curriculum that covers mathematics instruction at the eighth grade of formal schooling?

*Check **one** circle only.*

Yes--- ◯

No--- ◯

If Yes…
Comments:

If No…
What is the highest level of decision-making authority (e.g., state or province) that provides a curriculum that covers mathematics instruction at the eighth grade of formal schooling?

Question 2 pertains to the mathematics curriculum that was in effect for the students assessed in TIMSS 2010/2011.

2. A. In what year was the current mathematics curriculum introduced?

Refers to the national curriculum that covers mathematics instruction at the eighth grade of formal schooling for the majority of students. If you do not have a national curriculum, please summarize for your state or provincial curricula.

Comments:

B. Is the mathematics curriculum currently being revised?

*Check **one** circle only.*

Yes---

No---

If Yes…
Please explain:

If No…
Comments:

3. For the middle/lower secondary school mathematics curriculum, what is the grade structure?

   Refers to the national curriculum that covers mathematics instruction at the eighth grade of formal schooling for the majority of students. If you do not have a national curriculum, please summarize for your state or provincial curricula.

   Examples: "Grades 1-8"; "Grades 4-8"; "Grades 6-8"; Grades 7-9"

4. What does the mathematics curriculum prescribe?

   Refers to the national curriculum that covers mathematics instruction at the eighth grade of formal schooling for the majority of students. If you do not have a national curriculum, please summarize for your state or provincial curricula.

   *Check **one** circle for each line.*

	Yes	No
a) Goals and objectives---------	○	○
b) Instructional processes or methods----------	○	○
c) Materials (e.g., textbooks, or instructional materials)------	○	○
d) Assessment methods/activities----------	○	○
e) Other---------- Please specify: _____	○	○

Comments:

5. Is there a process for approving the textbooks used for mathematics instruction?

*Check **one** circle only.*

Yes--- ◯

No--- ◯

If Yes…
Please describe the process:

6. A. Does the national curriculum contain statements/policies about the use of calculators in grade 8 mathematics?

   Refers to the national curriculum that covers mathematics instruction at the eighth grade of formal schooling for the majority of students. If you do not have a national curriculum, please summarize for your state or provincial curricula.

   *Check **one** circle only.*

   Yes--- ◯

   No--- ◯

   If Yes…
   What are the statements/policies?

   B. Does the national curriculum contain statements/policies about the use of calculators in grade 8 mathematics tests or examinations?

   Refers to the national curriculum that covers mathematics instruction at the eighth grade of formal schooling for the majority of students. If you do not have a national curriculum, please summarize for your state or provincial curricula.

   *Check **one** circle only.*

   Yes--- ◯

   No--- ◯

   If Yes…
   What are the statements/policies?

   Comments:

7. Does the national curriculum contain statements/policies about the use of computers in grade 8 mathematics?

   Refers to the national curriculum that covers mathematics instruction at the eighth grade of formal schooling for the majority of students. If you do not have a national curriculum, please summarize for your state or provincial curricula.

   *Check **one** circle only.*

   Yes--- ◯

   No--- ◯

   If Yes…
   What are the statements/policies?

   Comments:

8. How much emphasis does the national mathematics curriculum place on the following?

   Refers to the national curriculum that covers mathematics instruction at the eighth grade of formal schooling for the majority of students. If you do not have a national curriculum, please summarize for your state or provincial curricula.

*Check **one** circle for each line.*

	None	Very Little	Some	A lot
a) Mastering basic skills and procedures----------	○	○	○	○
b) Applying mathematics in real-life contexts----------	○	○	○	○
c) Reasoning mathematically-------	○	○	○	○

Comments:

9. (i) According to the national mathematics curriculum, what proportion of grade 8 students should have been taught each of the following topics or skills by the end of grade 8?

   Be sure to include curriculum expectations for all grades up to and including grade 8. Grades represent years of formal schooling. For example, if "Year 9" in your country corresponds to the eighth year of formal schooling, please choose grade 8.

   Across grades from preprimary through upper secondary education, at what grade(s) are the topics primarily intended to be taught?

   If there are not any specifications to this detail, please indicate national expectations to the best of your ability. If part of a topic does not apply (e.g., estimation in part A topic (a)), please explain in the comment field.

   Refers to the national curriculum that covers mathematics instruction at the eighth grade of formal schooling for the majority of students. If you do not have a national curriculum, please summarize for your state or provincial curricula.

	Proportion of grade 8 students expected to be taught topic *Check **one** circle for each line.*			**Grade(s) topic is expected to be taught** preprimary (PP) through the end of upper secondary (G12)
A. Number	**All or almost all students**	**Only the more able students**	**Not included in the curriculum through grade 8**	
a) Computing, estimating, or approximating with whole numbers----------	○	○	○	PP ☐ G1 ☐ G2 ☐ G3 ☐ G4 ☐ G5 ☐ G6 ☐ G7 ☐ G8 ☐ G9 ☐ G10 ☐ G11 ☐ G12 ☐
b) Concepts of fractions and computing with fractions----------	○	○	○	PP ☐ G1 ☐ G2 ☐ G3 ☐ G4 ☐ G5 ☐ G6 ☐ G7 ☐ G8 ☐ G9 ☐ G10 ☐ G11 ☐ G12 ☐

c) Concepts of decimals and computing with decimals----------		PP ☐	G1 ☐	G2 ☐	G3 ☐	G4 ☐	G5 ☐	G6 ☐
		G7 ☐	G8 ☐	G9 ☐	G10 ☐	G11 ☐	G12 ☐	
d) Representing, comparing, ordering, and computing with integers----------		PP ☐	G1 ☐	G2 ☐	G3 ☐	G4 ☐	G5 ☐	G6 ☐
		G7 ☐	G8 ☐	G9 ☐	G10 ☐	G11 ☐	G12 ☐	
e) Problem solving involving percents and proportions---		PP ☐	G1 ☐	G2 ☐	G3 ☐	G4 ☐	G5 ☐	G6 ☐
		G7 ☐	G8 ☐	G9 ☐	G10 ☐	G11 ☐	G12 ☐	

Comments:

	(i) Proportion of grade 8 students expected to be taught topic *Check **one** circle for each line.*			(ii) Grade(s) topic is expected to be taught preprimary (PP) through the end of upper secondary (G12)
	All or almost all students	**Only the more able students**	**Not included in the curriculum through grade 8**	
B. Algebra				
a) Numeric, algebraic, and geometric patterns or sequences (extension, missing terms, generalization of patterns)- ---------	○	○	○	PP ☐ G1 ☐ G2 ☐ G3 ☐ G4 ☐ G5 ☐ G6 ☐ G7 ☐ G8 ☐ G9 ☐ G10 ☐ G11 ☐ G12 ☐
b) Simplifying and evaluating algebraic expressions--------	○	○	○	PP ☐ G1 ☐ G2 ☐ G3 ☐ G4 ☐ G5 ☐ G6 ☐ G7 ☐ G8 ☐ G9 ☐ G10 ☐ G11 ☐ G12 ☐
c) Simple linear equations and inequalities--------	○	○	○	PP ☐ G1 ☐ G2 ☐ G3 ☐ G4 ☐ G5 ☐ G6 ☐ G7 ☐ G8 ☐ G9 ☐ G10 ☐ G11 ☐ G12 ☐
d) Simultaneous (two variables) equations----------	○	○	○	PP ☐ G1 ☐ G2 ☐ G3 ☐ G4 ☐ G5 ☐ G6 ☐ G7 ☐ G8 ☐ G9 ☐ G10 ☐ G11 ☐ G12 ☐
e) Representation of functions as ordered pairs, tables, graphs, words, or equations----------	○	○	○	PP ☐ G1 ☐ G2 ☐ G3 ☐ G4 ☐ G5 ☐ G6 ☐ G7 ☐ G8 ☐ G9 ☐ G10 ☐ G11 ☐ G12 ☐

Comments:

C. Geometry	(i) Proportion of grade 8 students expected to be taught topic *Check **one** circle for each line.* All or almost all students	Only the more able students	Not included in the curriculum through grade 8	(ii) Grade(s) topic is expected to be taught preprimary (PP) through the end of upper secondary (G12)
a) Geometric properties of angles and geometric shapes (triangles, quadrilaterals, and other common polygons)----------	○	○	○	PP ☐ G1 ☐ G2 ☐ G3 ☐ G4 ☐ G5 ☐ G6 ☐ G7 ☐ G8 ☐ G9 ☐ G10 ☐ G11 ☐ G12 ☐
b) Congruent figures and similar triangles----------	○	○	○	PP ☐ G1 ☐ G2 ☐ G3 ☐ G4 ☐ G5 ☐ G6 ☐ G7 ☐ G8 ☐ G9 ☐ G10 ☐ G11 ☐ G12 ☐
c) Relationship between three–dimensional shapes and their two-dimensional representations----	○	○	○	PP ☐ G1 ☐ G2 ☐ G3 ☐ G4 ☐ G5 ☐ G6 ☐ G7 ☐ G8 ☐ G9 ☐ G10 ☐ G11 ☐ G12 ☐
d) Using appropriate measurement formulas for perimeters, circumferences, areas, surface areas, and volumes----------	○	○	○	PP ☐ G1 ☐ G2 ☐ G3 ☐ G4 ☐ G5 ☐ G6 ☐ G7 ☐ G8 ☐ G9 ☐ G10 ☐ G11 ☐ G12 ☐
e) Points on the Cartesian plane--	○	○	○	PP ☐ G1 ☐ G2 ☐ G3 ☐ G4 ☐ G5 ☐ G6 ☐ G7 ☐ G8 ☐ G9 ☐ G10 ☐ G11 ☐ G12 ☐

f) Translation, reflection, and rotation----------

PP	G1	G2	G3	G4	G5	G6
☐	☐	☐	☐	☐	☐	☐
G7	G8	G9	G10	G11	G12	
☐	☐	☐	☐	☐	☐	

Comments:

	(i) Proportion of grade 8 students expected to be taught topic *Check **one** circle for each line.* **All or almost all students** / **Only the more able students** / **Not included in the curriculum through grade 8**	**(ii) Grade(s) topic is expected to be taught** preprimary (PP) through the end of upper secondary (G12)
D. Data and Chance		
a) Reading and displaying data using tables, pictographs, bar graphs, pie charts and line graphs---	○ ○ ○	PP ☐ G1 ☐ G2 ☐ G3 ☐ G4 ☐ G5 ☐ G6 ☐ G7 ☐ G8 ☐ G9 ☐ G10 ☐ G11 ☐ G12 ☐
b) Interpreting data sets (e.g., draw conclusions, make predictions, and estimate values between and beyond given data points) ----------	○ ○ ○	PP ☐ G1 ☐ G2 ☐ G3 ☐ G4 ☐ G5 ☐ G6 ☐ G7 ☐ G8 ☐ G9 ☐ G10 ☐ G11 ☐ G12 ☐
c) Judging, predicting, and determining the chances of possible outcomes----------	○ ○ ○	PP ☐ G1 ☐ G2 ☐ G3 ☐ G4 ☐ G5 ☐ G6 ☐ G7 ☐ G8 ☐ G9 ☐ G10 ☐ G11 ☐ G12 ☐

Comments:

10. In what form is the mathematics curriculum made available?

Refers to the national curriculum that covers mathematics instruction at the eighth grade of formal schooling for the majority of students. If you do not have a national curriculum, please summarize for your state or provincial curricula.

*Check **one** circle for each line.*

	Yes	No
a) Official publication containing the curriculum----------	○	○
b) Ministry notes and directives----------	○	○
c) Mandated or recommended textbooks----------	○	○
d) Instructional or pedagogical guide----------	○	○
e) Specifically developed or recommended instructional activities----	○	○
f) Other----------	○	○

Please specify: _____

Comments:

11. Does the curriculum prescribe the percentage of **total** instructional time to be devoted to **mathematics** instruction at the eighth grade of formal schooling?

    Refers to the national curriculum that covers mathematics instruction at the eighth grade of formal schooling for the majority of students. If you do not have a national curriculum, please summarize for your state or provincial curricula.

    *Check **one** circle only.*

    Yes--- ◯

    No--- ◯

    If Yes,…
    Please specify the percentage:

Comments:

12. How is the mathematics curriculum implementation evaluated?

Refers to the national curriculum that covers mathematics instruction at the eighth grade of formal schooling for the majority of students. If you do not have a national curriculum, please summarize for your state or provincial curricula.

*Check **one** circle for each line.*

	Yes	**No**
a) Visits by inspectors----------	◯	◯
b) Research programs----------	◯	◯
c) School self-evaluation----------	◯	◯
d) National or regional assessments----------	◯	◯
e) Other----------	◯	◯

Please specify: _____

_____

Comments:

13. For teachers of students in the **eighth grade**, does your country experience any difficulties recruiting or retaining teachers of mathematics?

*Check **one** circle only.*

Yes--- ◯

No--- ◯

If Yes…
Comments:

SCIENCE MODULE
GRADE 8
(TIMSS Grade 8 Module, Part 2)

To be completed by all countries participating in TIMSS at the eighth grade

1. Does your country have a national curriculum that covers science instruction at the eighth grade of formal schooling?

*Check **one** circle only.*

Yes--- ◯

No--- ◯

If Yes…
Comments:

If No…
What is the highest level of decision-making authority (e.g., state or province) that provides a curriculum that covers science instruction at the eighth grade of formal schooling?

Question 2 pertains to the science curriculum that was in effect for the students assessed in TIMSS 2010/2011.

2. A. In what year was the current science curriculum introduced?

Refers to the national curriculum that covers science instruction at the eighth grade of formal schooling for the majority of students. If you do not have a national curriculum, please summarize for your state or provincial curricula.

Comments:

B. Is the science curriculum currently being revised?

*Check **one** circle only.*

Yes---

No---

If Yes…
Please explain:

If No…
Comments:

3. For the middle/lower secondary school science curriculum, what is the grade structure?

   Refers to the national curriculum that covers science instruction at the eighth grade of formal schooling for the majority of students. If you do not have a national curriculum, please summarize for your state or provincial curricula.

   Examples: "Grades 1-8"; "Grades 4-8"; "Grades 6-8"; "Grades 7-9"

4. What does the science curriculum prescribe?

Refers to the national curriculum that covers science instruction at the eighth grade of formal schooling for the majority of students. If you do not have a national curriculum, please summarize for your state or provincial curricula.

*Check **one** circle for each line.*

	Yes	**No**
a) Goals and objectives---------	○	○
b) Instructional processes or methods----------	○	○
c) Materials (e.g., textbooks, or instructional materials)------	○	○
d) Assessment methods/activities----------	○	○
e) Other---------- Please specify: _____	○	○

Comments:

5. Is there a process for approving the textbooks used for science instruction?

*Check **one** circle only.*

Yes--- ◯

No--- ◯

If Yes…
Please describe the process:

6. Does the national curriculum contain statements/policies about the use of computers in grade 8 science?

   Refers to the national curriculum that covers science instruction at the eighth grade of formal schooling for the majority of students. If you do not have a national curriculum, please summarize for your state or provincial curricula.

   *Check **one** circle only.*

   Yes--- ◯

   No--- ◯

   If Yes…
   What are the statements/policies?

   Comments:

7. How much emphasis does the national science curriculum place on the following?

Refers to the national curriculum that covers science instruction at the eighth grade of formal schooling for the majority of students. If you do not have a national curriculum, please summarize for your state or provincial curricula.

*Check **one** circle for each line.*

	None	Very Little	Some	A lot
a) Knowing basic science facts and principles----------	○	○	○	○
b) Applying science in real-life contexts----------	○	○	○	○
c) Providing explanations or justifications about what is being studied----------	○	○	○	○
d) Designing and planning experiments or investigations----------	○	○	○	○
e) Conducting experiments or investigations----------	○	○	○	○

Comments:

8. According to the national science curriculum, what proportion of grade 8 students should have been taught each of the following topics or skills by the end of grade 8?

   Be sure to include curriculum expectations for all grades up to and including grade 8. Grades represent years of formal schooling. For example, if "Year 9" in your country corresponds to the eighth year of formal schooling, please choose grade 8.

   Across grades from preprimary through upper secondary education, at what grade(s) are the topics primarily intended to be taught?

   If there are not any specifications to this detail, please indicate national expectations to the best of your ability. If part of a topic does not apply (e.g., heredity in part A topic (c)), please explain in the comment field.

   Refers to the national curriculum that covers science instruction at the eighth grade of formal schooling for the majority of students. If you do not have a national curriculum, please summarize for your state or provincial curricula.

	(i) Proportion of grade 8 students expected to be taught topic *Check **one** circle for each line.*			**(ii) Grade(s) topic is expected to be taught** preprimary (PP) through the end of upper secondary (G12)
A. Biology	**All or almost all students**	**Only the more able students**	**Not included in the curriculum through grade 8**	
a) Major organs and organ systems in humans and other organisms (structure/function, life processes that maintain stable bodily conditions)-------	○	○	○	PP ☐ G1 ☐ G2 ☐ G3 ☐ G4 ☐ G5 ☐ G6 ☐ G7 ☐ G8 ☐ G9 ☐ G10 ☐ G11 ☐ G12 ☐

b) Cells and their functions, including respiration and photosynthesis as cellular processes-		PP G1 G2 G3 G4 G5 G6 ☐ ☐ ☐ ☐ ☐ ☐ ☐ G7 G8 G9 G10 G11 G12 ☐ ☐ ☐ ☐ ☐ ☐
c) Reproduction (sexual and asexual) and heredity (passing on of traits, inherited versus acquired/learned characteristics) ---		PP G1 G2 G3 G4 G5 G6 ☐ ☐ ☐ ☐ ☐ ☐ ☐ G7 G8 G9 G10 G11 G12 ☐ ☐ ☐ ☐ ☐ ☐
d) Role of variation and adaptation in survival/extinctio n of species in a changing environment-----		PP G1 G2 G3 G4 G5 G6 ☐ ☐ ☐ ☐ ☐ ☐ ☐ G7 G8 G9 G10 G11 G12 ☐ ☐ ☐ ☐ ☐ ☐
e) Interdependence of populations of organisms in an ecosystem (e.g., energy flow, food webs, competition, predation) and the impact of changes in the physical environment on populations (e.g., climate, water supply) ----------		PP G1 G2 G3 G4 G5 G6 ☐ ☐ ☐ ☐ ☐ ☐ ☐ G7 G8 G9 G10 G11 G12 ☐ ☐ ☐ ☐ ☐ ☐

f) Reasons for increase in world's human population (e.g., advances in medicine, sanitation), and the effects of population growth on the environment-------		PP ☐ G1 ☐ G2 ☐ G3 ☐ G4 ☐ G5 ☐ G6 ☐ G7 ☐ G8 ☐ G9 ☐ G10 ☐ G11 ☐ G12 ☐
g) Human health (causes of infectious diseases, methods of infection, prevention, immunity) and the importance of diet and exercise in maintaining health----------		PP ☐ G1 ☐ G2 ☐ G3 ☐ G4 ☐ G5 ☐ G6 ☐ G7 ☐ G8 ☐ G9 ☐ G10 ☐ G11 ☐ G12 ☐

Comments:

	(i) Proportion of grade 8 students expected to be taught topic *Check **one** circle for each line.*			(ii) Grade(s) topic is expected to be taught preprimary (PP) through the end of upper secondary (G12)
	All or almost all students	**Only the more able students**	**Not included in the curriculum through grade 8**	
B. Chemistry				
a) Classification, composition, and particulate structure of matter (elements, compounds, mixtures, molecules, atoms, protons, neutrons, electrons)----------	○	○	○	PP ☐ G1 ☐ G2 ☐ G3 ☐ G4 ☐ G5 ☐ G6 ☐ G7 ☐ G8 ☐ G9 ☐ G10 ☐ G11 ☐ G12 ☐
b) Solutions (solvent, solute, concentration/dilution, effect of temperature on solubility) ---------	○	○	○	PP ☐ G1 ☐ G2 ☐ G3 ☐ G4 ☐ G5 ☐ G6 ☐ G7 ☐ G8 ☐ G9 ☐ G10 ☐ G11 ☐ G12 ☐
c) Properties and uses of common acids and bases---	○	○	○	PP ☐ G1 ☐ G2 ☐ G3 ☐ G4 ☐ G5 ☐ G6 ☐ G7 ☐ G8 ☐ G9 ☐ G10 ☐ G11 ☐ G12 ☐

d) Chemical change (transformation of reactants, evidence of chemical change, conservation of matter, common oxidation reactions- combustion, rusting, tarnishing) --------		PP G1 G2 G3 G4 G5 G6 ☐ ☐ ☐ ☐ ☐ ☐ ☐ G7 G8 G9 G10 G11 G12 ☐ ☐ ☐ ☐ ☐ ☐

Comments:

	(i) Proportion of grade 8 students expected to be taught topic *Check **one** circle for each line.*			(ii) Grade(s) topic is expected to be taught preprimary (PP) through upper secondary
C. Physics	**All or almost all students**	**Only the more able students**	**Not included in the curriculum through grade 8**	
a) Physical states and changes in matter (explanations of properties in terms of movement and distance between particles; phase change, thermal expansion, and changes in volume and/or pressure)----------	○	○	○	PP ☐ G1 ☐ G2 ☐ G3 ☐ G4 ☐ G5 ☐ G6 ☐ G7 ☐ G8 ☐ G9 ☐ G10 ☐ G11 ☐ G12 ☐
b) Energy forms, transformations, heat, and temperature------	○	○	○	PP ☐ G1 ☐ G2 ☐ G3 ☐ G4 ☐ G5 ☐ G6 ☐ G7 ☐ G8 ☐ G9 ☐ G10 ☐ G11 ☐ G12 ☐

c) Basic properties/behaviors of light (reflection, refraction, light and color, simple ray diagrams) and sound (transmission through media, loudness, pitch, amplitude, frequency, relative speed of light and sound)		PP ☐	G1 ☐	G2 ☐	G3 ☐	G4 ☐	G5 ☐	G6 ☐
		G7 ☐	G8 ☐	G9 ☐	G10 ☐	G11 ☐	G12 ☐	
d) Electric circuits (flow of current; types of circuits - parallel/series; current/voltage relationship) and properties and uses of permanent magnets and electromagnets--		PP ☐	G1 ☐	G2 ☐	G3 ☐	G4 ☐	G5 ☐	G6 ☐
		G7 ☐	G8 ☐	G9 ☐	G10 ☐	G11 ☐	G12 ☐	
e) Forces and motion (types of forces, basic description of motion, effects of density and pressure) ---------		PP ☐	G1 ☐	G2 ☐	G3 ☐	G4 ☐	G5 ☐	G6 ☐
		G7 ☐	G8 ☐	G9 ☐	G10 ☐	G11 ☐	G12 ☐	

Comments:

	Proportion of grade 8 students expected to be taught topic *Check **one** circle for each line.*			Grade(s) topic is expected to be taught preprimary (PP) through the end of upper secondary (G12)
	All or almost all students	**Only the more able students**	**Not included in the curriculum through grade 8**	
D. Earth Science				
a) Earth's structure and physical features (Earth's crust, mantle and core; composition and relative distribution of water, and composition of air)----------	○	○	○	PP ☐ G1 ☐ G2 ☐ G3 ☐ G4 ☐ G5 ☐ G6 ☐ G7 ☐ G8 ☐ G9 ☐ G10 ☐ G11 ☐ G12 ☐
b) Earth's processes, cycles and history (rock cycle; water cycle; weather patterns; major geological events; formation of fossils and fossil fuels) ----------	○	○	○	PP ☐ G1 ☐ G2 ☐ G3 ☐ G4 ☐ G5 ☐ G6 ☐ G7 ☐ G8 ☐ G9 ☐ G10 ☐ G11 ☐ G12 ☐
c) Earth's resources, their use and conservation (e.g., renewable/nonrenewable resources, human use of land/soil, water resources) ---------	○	○	○	PP ☐ G1 ☐ G2 ☐ G3 ☐ G4 ☐ G5 ☐ G6 ☐ G7 ☐ G8 ☐ G9 ☐ G10 ☐ G11 ☐ G12 ☐

d) Earth in the solar system and the universe (phenomena on Earth - day/night, tides, phases of moon, eclipses, seasons; physical features of Earth compared to other bodies; the Sun as a star) ----------		PP ☐	G1 ☐	G2 ☐	G3 ☐	G4 ☐	G5 ☐	G6 ☐	G7 ☐	G8 ☐	G9 ☐	G10 ☐	G11 ☐	G12 ☐

Comments:

9. In what form is the science curriculum made available?

Refers to the national curriculum that covers science instruction at the eighth grade of formal schooling for the majority of students. If you do not have a national curriculum, please summarize for your state or provincial curricula.

*Check **one** circle for each line.*

	Yes	No
a) Official publication containing the curriculum----------	○	○
b) Ministry notes and directives----------	○	○
c) Mandated or recommended textbooks----------	○	○
d) Instructional or pedagogical guide----------	○	○
e) Specifically developed or recommended instructional activities----	○	○
f) Other----------	○	○

Please specify:

_____

Comments:

10. Does the curriculum prescribe the percentage of **total** instructional time to be devoted to **science** instruction at the eighth grade of formal schooling?

    Refers to the national curriculum that covers science instruction at the eighth grade of formal schooling for the majority of students. If you do not have a national curriculum, please summarize for your state or provincial curricula.

    *Check **one** circle only.*

    Yes--- ◯

    No--- ◯

    If Yes…
    Please specify the percentage:

    ☐

    Comments:

    ☐

11. How is the science curriculum implementation evaluated?

Refers to the national curriculum that covers science instruction at the eighth grade of formal schooling for the majority of students. If you do not have a national curriculum, please summarize for your state or provincial curricula.

*Check **one** circle for each line.*

	Yes	**No**
a) Visits by inspectors----------	◯	◯
b) Research programs----------	◯	◯
c) School self-evaluation----------	◯	◯
d) National or regional assessments----------	◯	◯
e) Other----------	◯	◯
Please specify: _____		

Comments:

12. For teachers of students in the **eighth grade**, does your country experience any difficulties recruiting or retaining teachers of science(s)?

*Check **one** circle only.*

Yes--- ◯

No--- ◯

If Yes…
Comments: