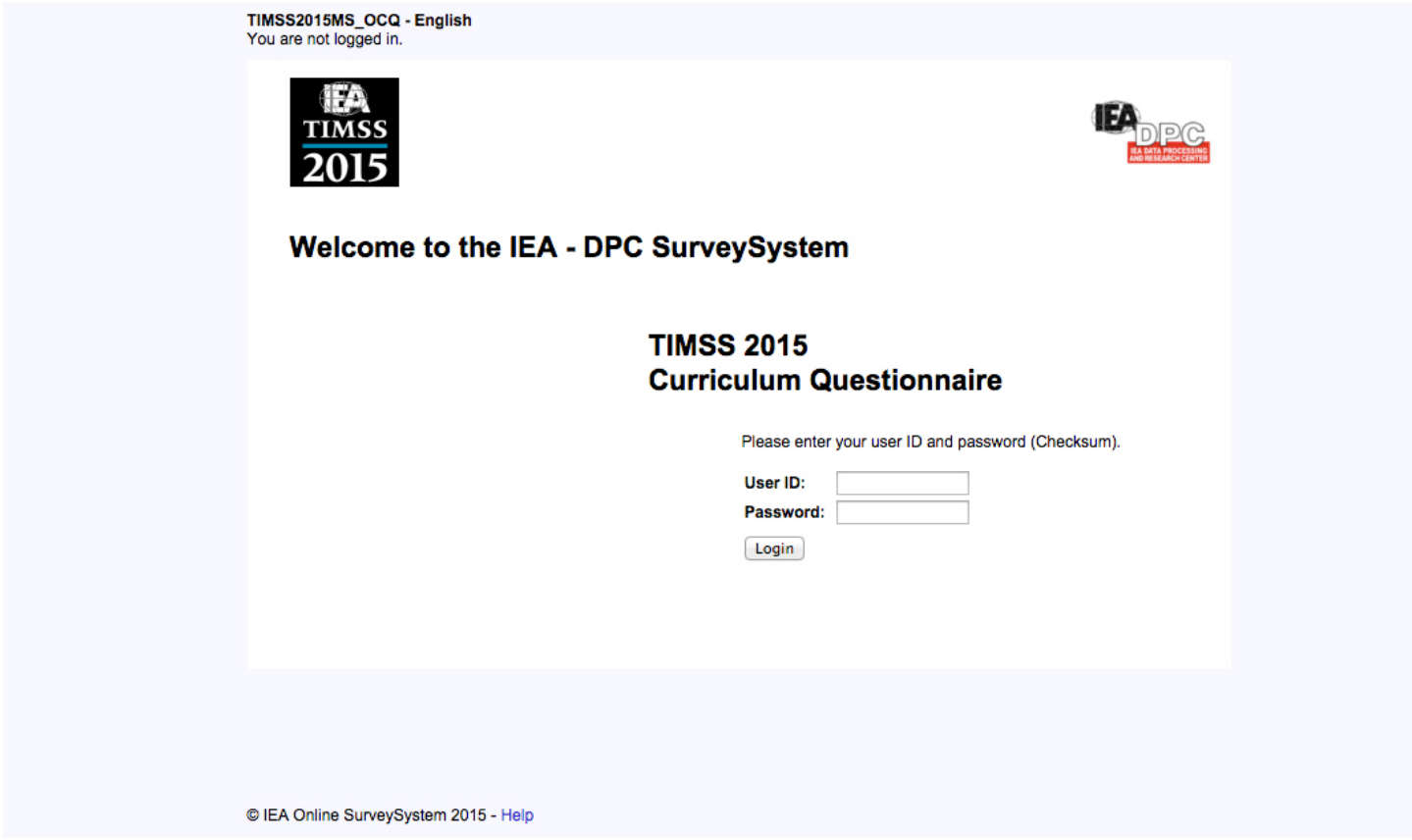
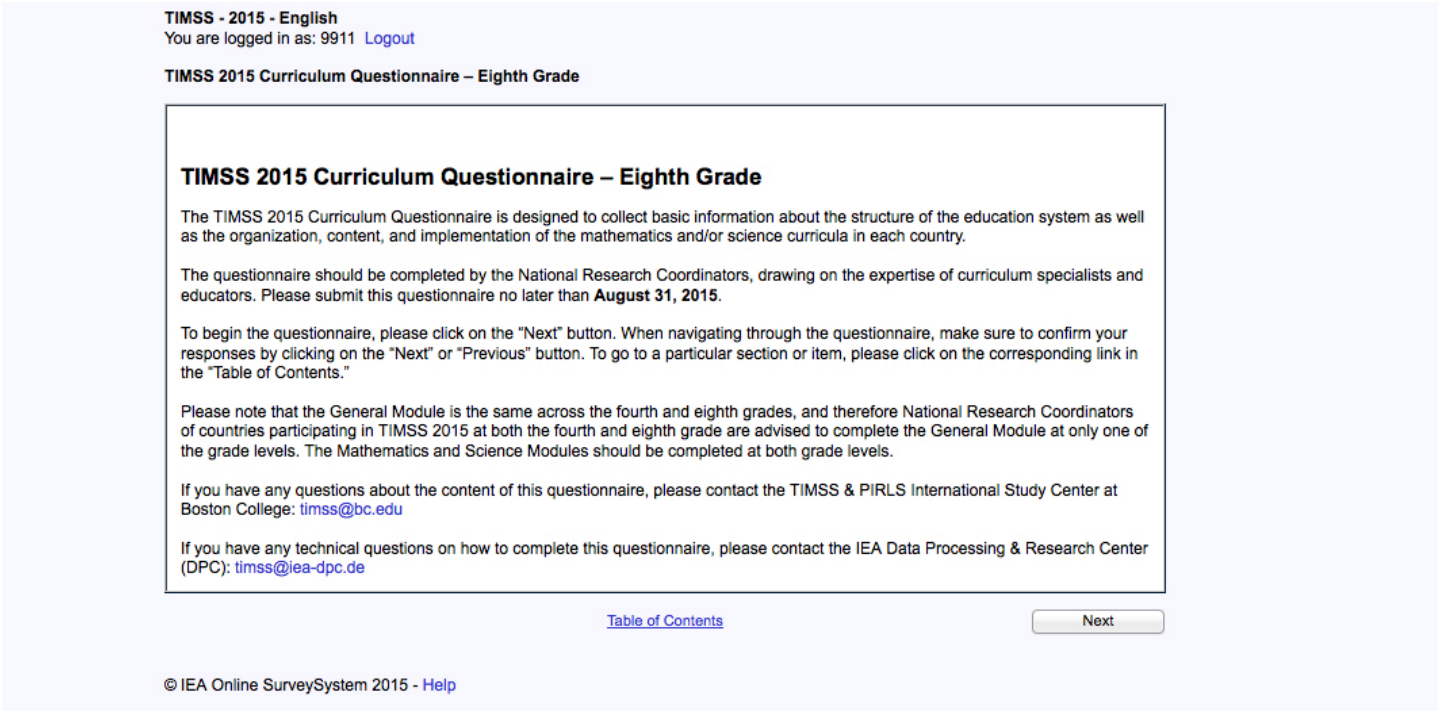
TIMSS 2015

TIMSS 2015 Curriculum Questionnaire—Eighth Grade

Grade 8

TIMSS & PIRLS International Study Center
Lynch School of Education, Boston College


TIMSS2015MS_OCQ - English
You are not logged in.
TIMSS 2015
IEA DPC
IEA DATA PROCESSING AND RESEARCH CENTER
Welcome to the IEA - DPC SurveySystem
TIMSS 2015
Curriculum Questionnaire
Please enter your user ID and password (Checksum).
User ID:
Password:
Login
© IEA Online SurveySystem 2015 - Help



TIMSS - 2015 - English
You are logged in as: 9911 Logout

TIMSS 2015 Curriculum Questionnaire – Eighth Grade

TIMSS 2015 Curriculum Questionnaire – Eighth Grade

The TIMSS 2015 Curriculum Questionnaire is designed to collect basic information about the structure of the education system as well as the organization, content, and implementation of the mathematics and/or science curricula in each country.

The questionnaire should be completed by the National Research Coordinators, drawing on the expertise of curriculum specialists and educators. Please submit this questionnaire no later than **August 31, 2015**.

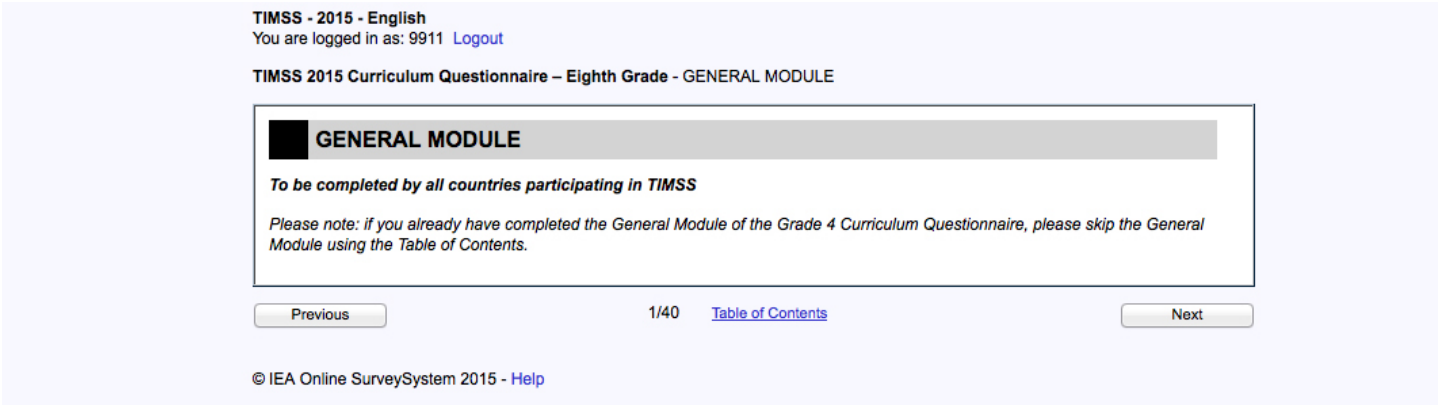
To begin the questionnaire, please click on the "Next" button. When navigating through the questionnaire, make sure to confirm your responses by clicking on the "Next" or "Previous" button. To go to a particular section or item, please click on the corresponding link in the "Table of Contents."

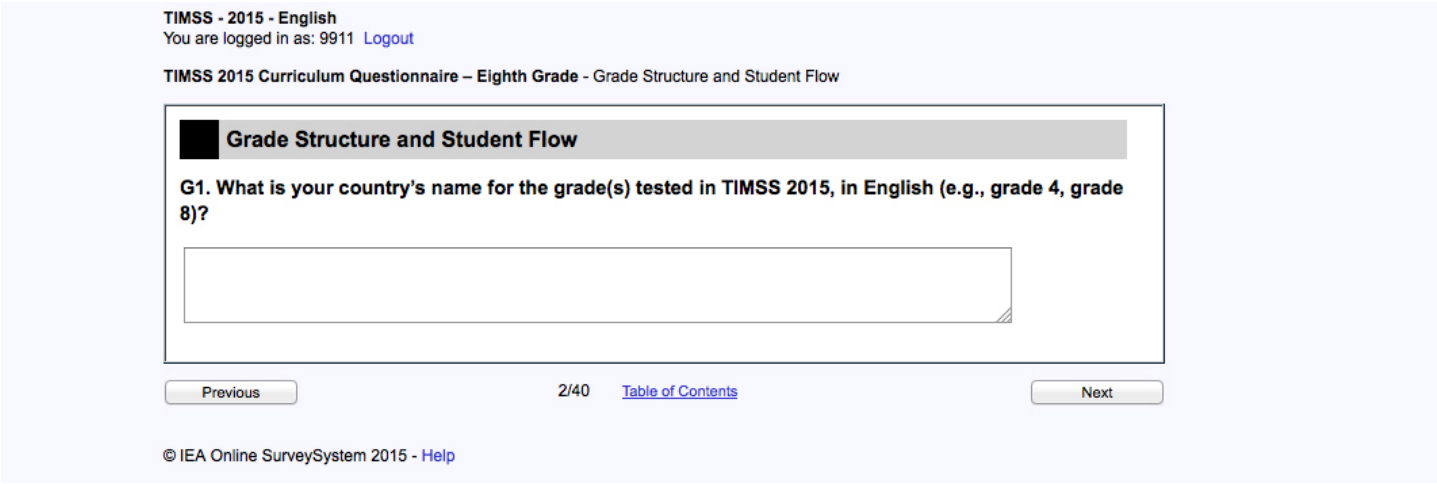
Please note that the General Module is the same across the fourth and eighth grades, and therefore National Research Coordinators of countries participating in TIMSS 2015 at both the fourth and eighth grade are advised to complete the General Module at only one of the grade levels. The Mathematics and Science Modules should be completed at both grade levels.

If you have any questions about the content of this questionnaire, please contact the TIMSS & PIRLS International Study Center at Boston College: timss@bc.edu

If you have any technical questions on how to complete this questionnaire, please contact the IEA Data Processing & Research Center (DPC): timss@iea-dpc.de

Table of Contents Next


TIMSS - 2015 - English
You are logged in as: 9911 Logout
TIMSS 2015 Curriculum Questionnaire – Eighth Grade - GENERAL MODULE
GENERAL MODULE
To be completed by all countries participating in TIMSS
Please note: if you already have completed the General Module of the Grade 4 Curriculum Questionnaire, please skip the General Module using the Table of Contents.
Previous
1/40
Table of Contents
Next
© IEA Online SurveySystem 2015 - Help



TIMSS - 2015 - English
You are logged in as: 9911 Logout

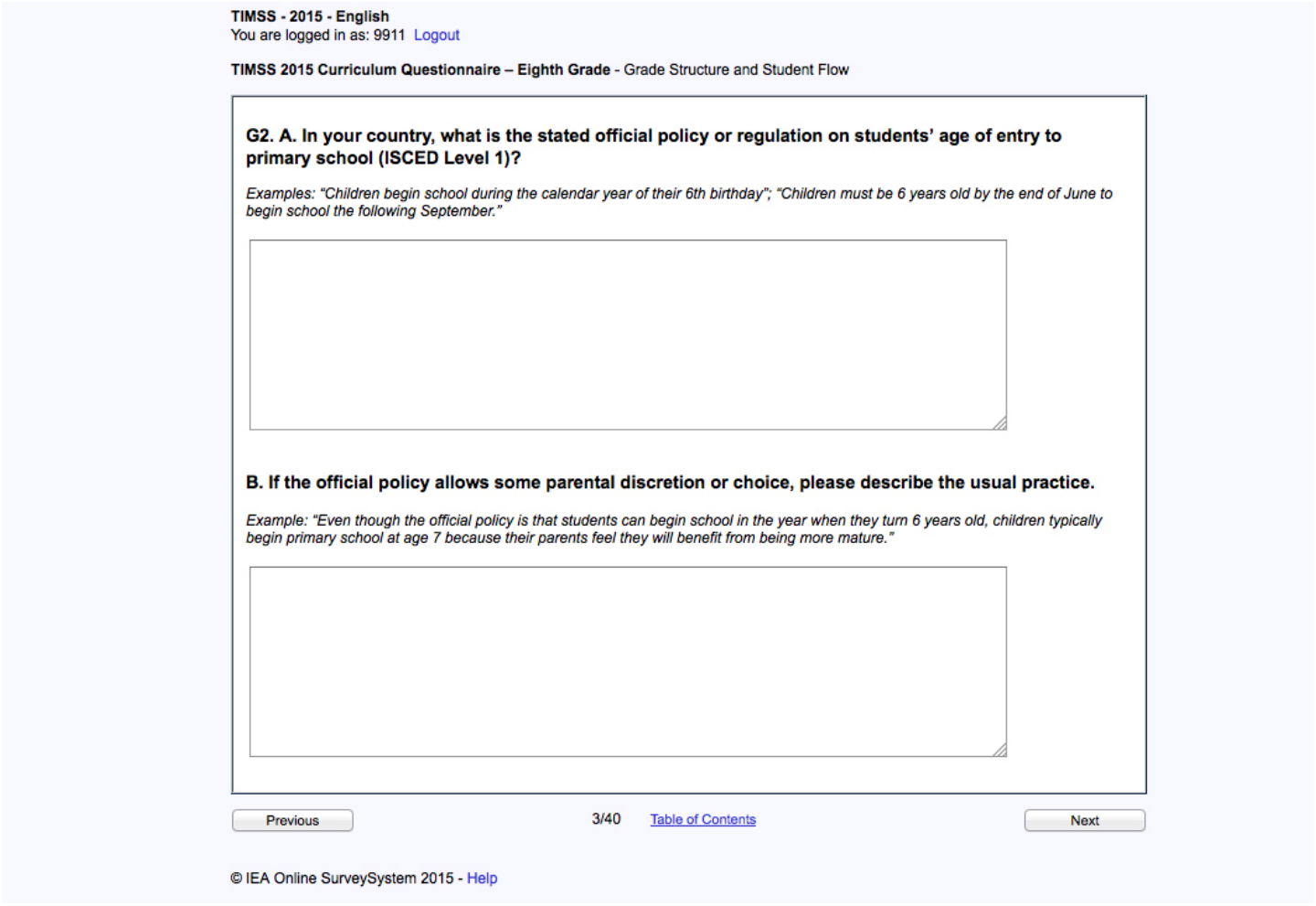
TIMSS 2015 Curriculum Questionnaire – Eighth Grade - Grade Structure and Student Flow

Grade Structure and Student Flow

G1. What is your country's name for the grade(s) tested in TIMSS 2015, in English (e.g., grade 4, grade 8)?

Previous 2/40 Table of Contents Next

© IEA Online SurveySystem 2015 - Help



TIMSS - 2015 - English
You are logged in as: 9911 Logout

TIMSS 2015 Curriculum Questionnaire – Eighth Grade - Grade Structure and Student Flow

G2. A. In your country, what is the stated official policy or regulation on students' age of entry to primary school (ISCED Level 1)?

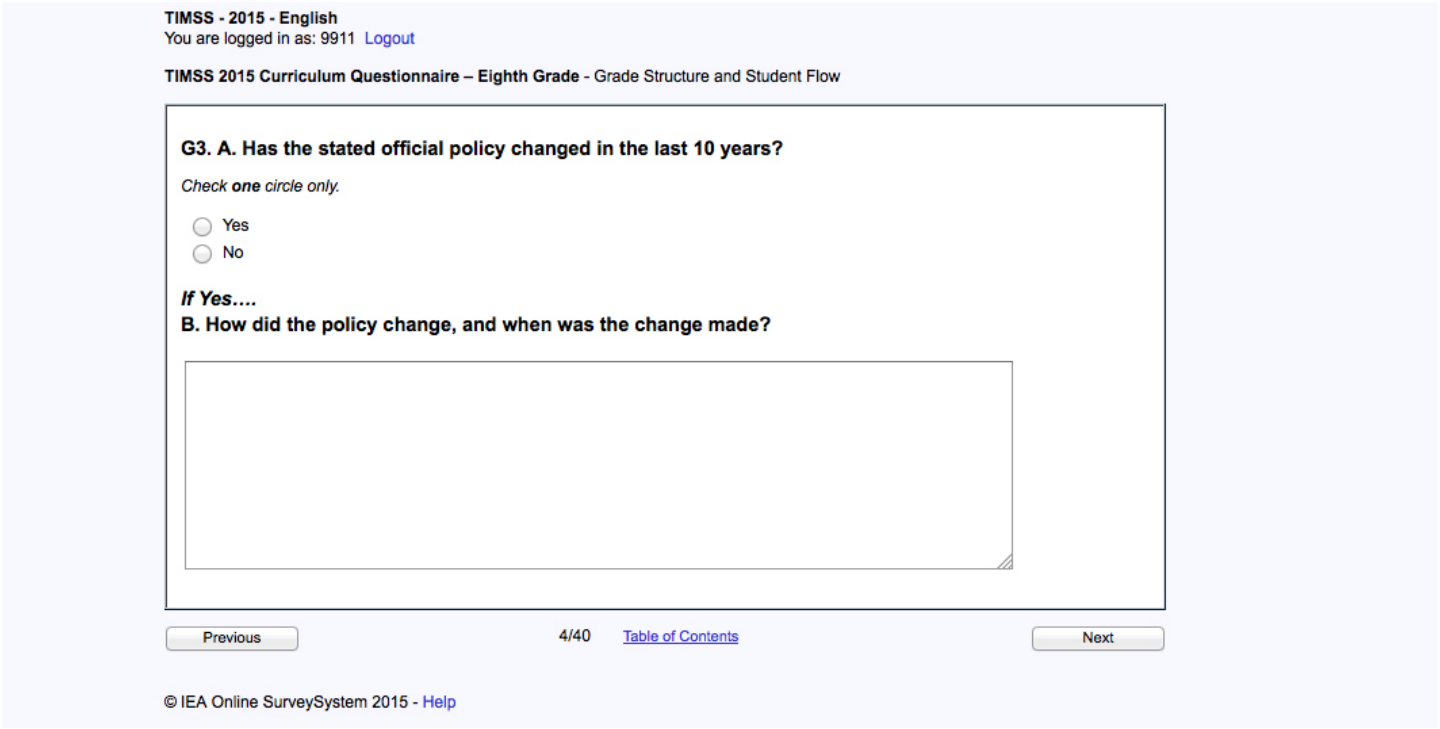
Examples: "Children begin school during the calendar year of their 6th birthday"; "Children must be 6 years old by the end of June to begin school the following September."

B. 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."

Previous 3/40 Table of Contents Next

© IEA Online SurveySystem 2015 - Help



TIMSS - 2015 - English
You are logged in as: 9911 Logout

TIMSS 2015 Curriculum Questionnaire – Eighth Grade - Grade Structure and Student Flow

G3. A. Has the stated official policy changed in the last 10 years?

*Check **one** circle only.*

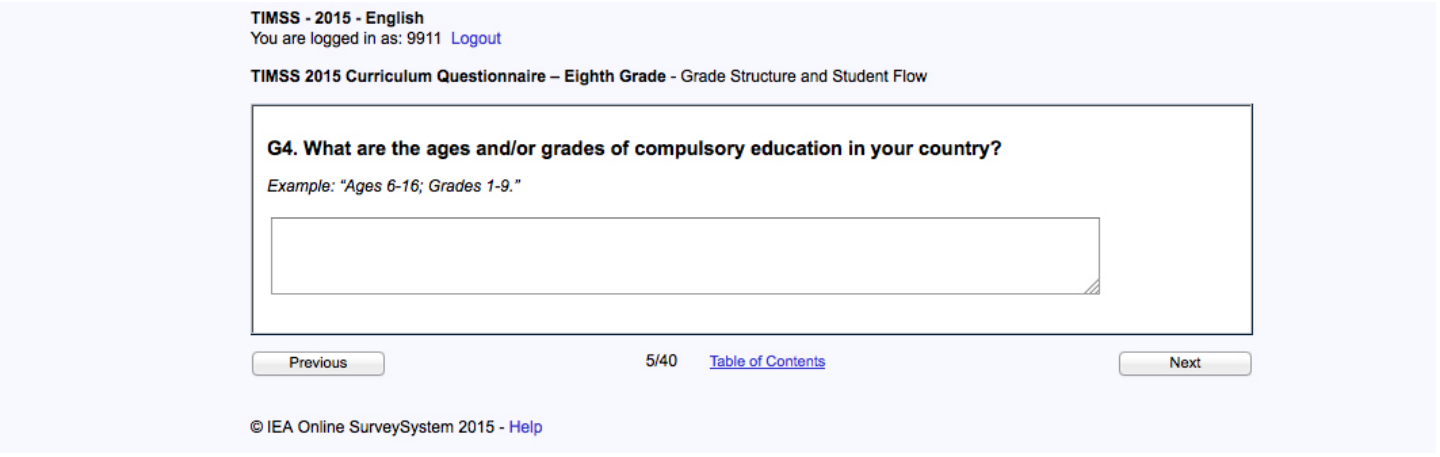
- ○ Yes
- ○ No

If Yes....

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

Previous 4/40 Table of Contents Next

© IEA Online SurveySystem 2015 - Help


TIMSS - 2015 - English
You are logged in as: 9911 Logout

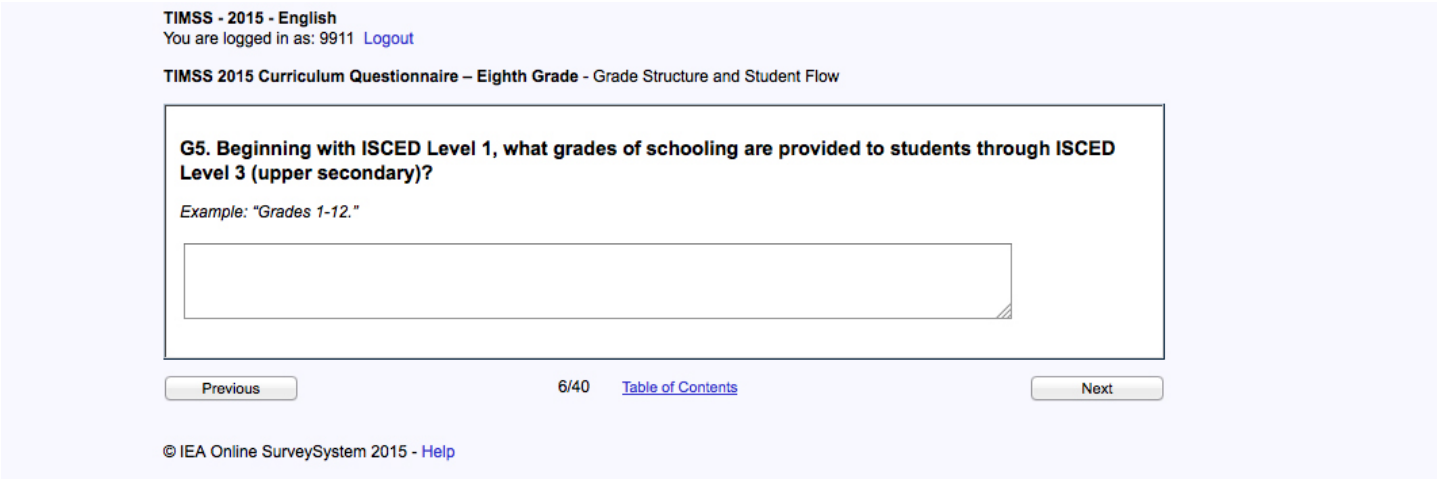
TIMSS 2015 Curriculum Questionnaire – Eighth Grade - Grade Structure and Student Flow

G4. What are the ages and/or grades of compulsory education in your country?

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

Previous 5/40 Table of Contents Next

© IEA Online SurveySystem 2015 - Help



TIMSS - 2015 - English
You are logged in as: 9911 Logout

TIMSS 2015 Curriculum Questionnaire – Eighth Grade - Grade Structure and Student Flow

G5. Beginning with ISCED Level 1, what grades of schooling are provided to students through ISCED Level 3 (upper secondary)?

Example: "Grades 1-12."

Previous 6/40 Table of Contents Next

© IEA Online SurveySystem 2015 - Help

TIMSS - 2015 - English
You are logged in as: 9911 Logout

TIMSS 2015 Curriculum Questionnaire – Eighth Grade - Grade Structure and Student Flow

G6. 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."

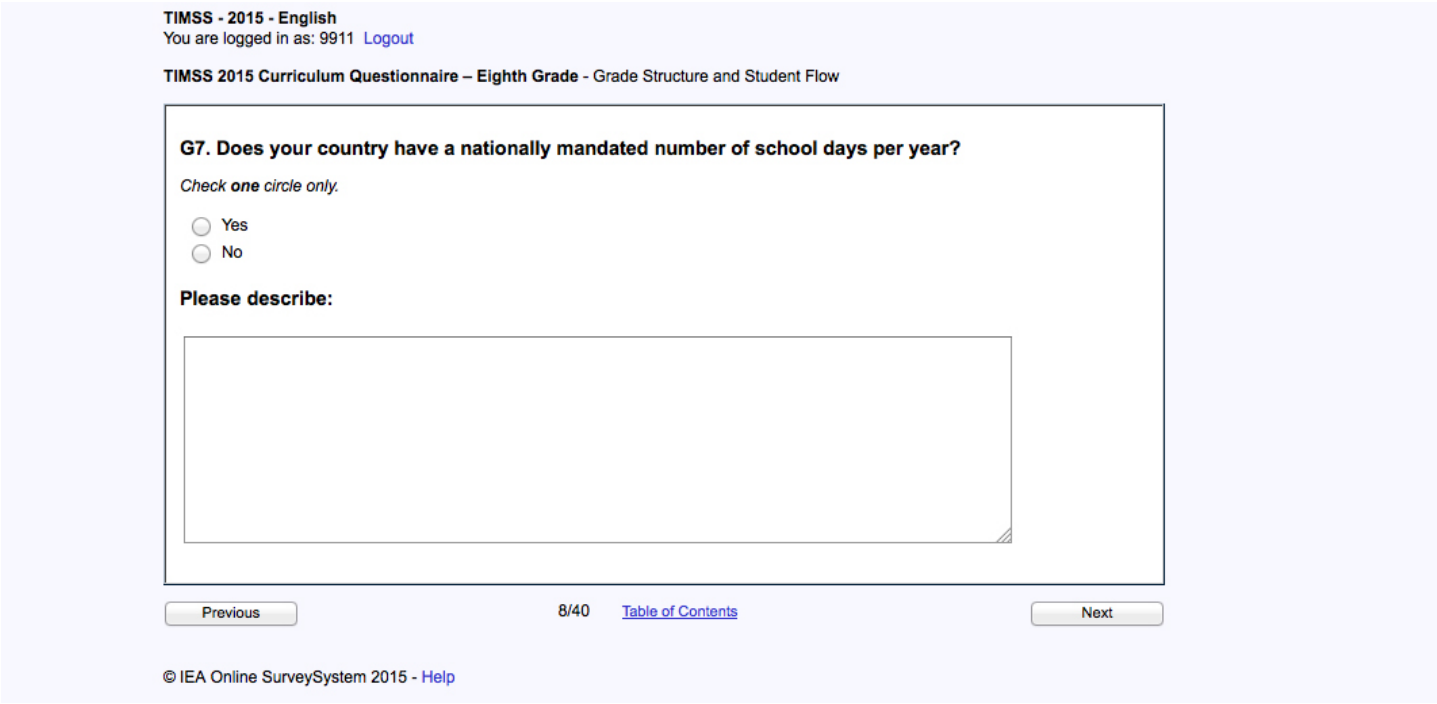
*Check **one** circle only.*

- ○ Yes
- ○ No

Please describe:

Previous 7/40 Table of Contents Next

© IEA Online SurveySystem 2015 - Help



TIMSS - 2015 - English
You are logged in as: 9911 Logout

TIMSS 2015 Curriculum Questionnaire – Eighth Grade - Grade Structure and Student Flow

G7. Does your country have a nationally mandated number of school days per year?

*Check **one** circle only.*

- ○ Yes
- ○ No

Please describe:

Previous 8/40 Table of Contents Next

© IEA Online SurveySystem 2015 - Help

TIMSS - 2015 - English
You are logged in as: 9911 Logout

TIMSS 2015 Curriculum Questionnaire – Eighth Grade - Early Childhood Education

Early Childhood Education

Early childhood education (ISCED Level 0) is subdivided into:
- ***Early childhood educational development (ECED)** programs for children under 3; and*
- ***Pre-primary education (PPE)** programs including Kindergarten for children age 3 or older.*

G8. A. Does your country provide universal ECED or PPE coverage?

*Programs with **universal** coverage are accessible and available to all children, although in some cases parents may choose not to enroll their children.*

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

	Yes	No
a) ECED programs for children under 3	○	○
b) PPE programs for children age 3 or older	○	○

B. How many years can children attend these programs altogether?

*Check **one** circle only.*

- ○ 1 year
- ○ 2 years
- ○ 3 years
- ○ 4 or more years

Comments:

C. Does your country provide targeted ECED or PPE coverage?

*Programs with **targeted** coverage are only available for certain subgroups (e.g., for children from low-income families, for children where the language spoken at home is different from the national language).*

*Check **one** circle only.*

- ○ Yes
- ○ No

Please describe:

Comments:

Previous 9/40 Table of Contents Next

TIMSS - 2015 - English
You are logged in as: 9911 Logout

TIMSS 2015 Curriculum Questionnaire – Eighth Grade - Early Childhood Education

G9. A. Does your country have national curriculum guidance documents for early childhood education?

*Check **one** circle only.*

- ○ Yes
- ○ No

If Yes....

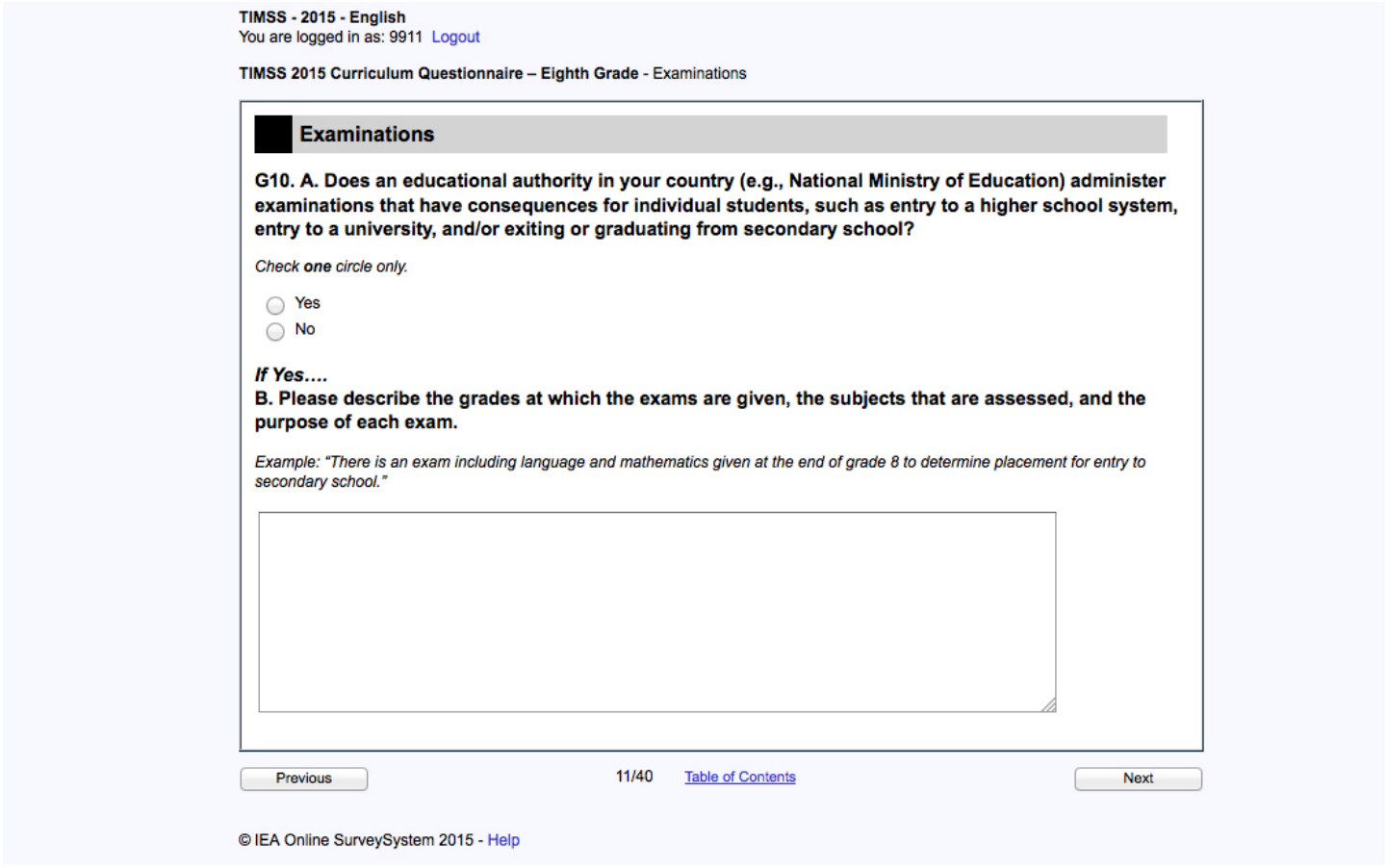
B. Do the curriculum guidance documents cover any of the following topic areas?

*Check **one** circle for **ECED** programs, AND **one** circle for **PPE** programs.*

	ECED programs		PPE programs	
	Yes	No	Yes	No
a) Socio-emotional development	○	○	○	○
b) Physical development and health education	○	○	○	○
c) Oral language development and communication skills	○	○	○	○
d) Reading and literacy skills	○	○	○	○
e) Mathematics and numeracy skills	○	○	○	○
f) Science including understanding the natural world (e.g., weather)	○	○	○	○
g) Other Please specify below:	○	○	○	○

Comments:

Previous 10/40 Table of Contents Next



TIMSS - 2015 - English
You are logged in as: 9911 Logout

TIMSS 2015 Curriculum Questionnaire – Eighth Grade - Examinations

Examinations

G10. A. Does an educational authority in your country (e.g., National Ministry of Education) administer examinations 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 only.*

- ○ Yes
- ○ No

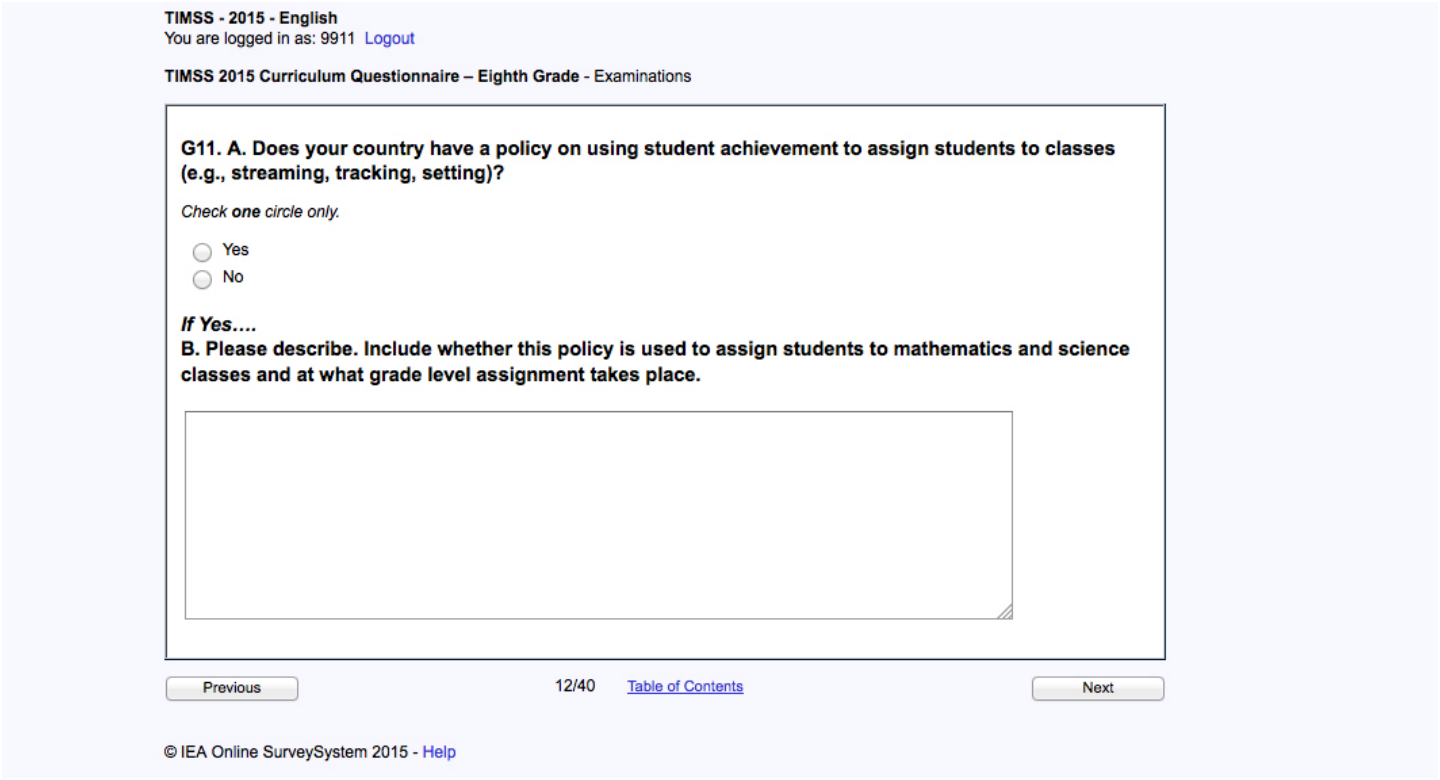
If Yes….

B. Please describe the grades at which the exams are given, the subjects that are assessed, 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."

Previous 11/40 Table of Contents Next

© IEA Online SurveySystem 2015 - Help



TIMSS - 2015 - English
You are logged in as: 9911 Logout

TIMSS 2015 Curriculum Questionnaire – Eighth Grade - Examinations

G11. A. Does your country have a policy on using student achievement to assign students to classes (e.g., streaming, tracking, setting)?

*Check **one** circle only.*

- ○ Yes
- ○ No

If Yes….

B. Please describe. Include whether this policy is used to assign students to mathematics and science classes and at what grade level assignment takes place.

Previous 12/40 Table of Contents Next

© IEA Online SurveySystem 2015 - Help

TIMSS - 2015 - English
You are logged in as: 9911 Logout

TIMSS 2015 Curriculum Questionnaire – Eighth Grade - Teacher Preparation

Teacher Preparation

G12. A. 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."

B. 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 below:	○	○

C. Has the stated official policy for fourth grade teachers changed in the last 10 years?

*Check **one** circle only.*

○ Yes
○ No

If Yes….
D. How did the policy change, and when was the change made?

Previous 13/40 Table of Contents Next

TIMSS - 2015 - English
You are logged in as: 9911 Logout

TIMSS 2015 Curriculum Questionnaire – Eighth Grade - Teacher Preparation

G13. A. Is the main preparation route(s) for teachers of students in the eighth grade different from the main preparation route(s) at the fourth grade?

*Check **one** circle only.*

- ○ Yes
- ○ No

If Yes….
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 below:	○	○

D. Has the stated official policy changed for eighth grade teachers in the last 10 years?

*Check **one** circle only.*

- ○ Yes
- ○ No

If Yes….
E. How did the policy change, and when was the change made?

Previous 14/40 Table of Contents Next

TIMSS - 2015 - English
You are logged in as: 9911 Logout

TIMSS 2015 Curriculum Questionnaire – Eighth Grade - Principal Preparation

Principal Preparation

G14. A. What is the main preparation route(s) for principals of schools with fourth grade students?

Example: "In addition to receiving their teaching qualifications, most principals have a degree in educational leadership."

B. According to the main principal preparation route, what are the current requirements for being a principal of a school with fourth grade students?

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

	Yes	No
a) Teaching experience	○	○
b) Completion of a specialized school leadership training program (including a school leadership degree program)	○	○
c) Other Please specify below:	○	○

C. Has the stated official policy changed in the last 10 years for principals of schools with fourth grade students?

*Check **one** circle only.*

- ○ Yes
- ○ No

If Yes....

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

Previous 15/40 Table of Contents Next

TIMSS - 2015 - English
You are logged in as: 9911 Logout

TIMSS 2015 Curriculum Questionnaire – Eighth Grade - Principal Preparation

G15. A. Is the main preparation route(s) for principals of schools with eighth grade students different from the main preparation route(s) for principals of schools with fourth grade students?

*Check **one** circle only.*

- ○ Yes
- ○ No

If Yes….

B. If the main preparation route(s) for principals of schools with eighth grade students is different, what is their main preparation route?

Example: "In addition to receiving their teaching qualifications, most principals have a degree in educational leadership."

C. According to the main principal preparation route, what are the current requirements for being a principal of a school with eighth grade students?

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

	Yes	No
a) Teaching experience	○	○
b) Completion of a specialized school leadership training program (including a school leadership degree program)	○	○
c) Other Please specify below:	○	○

D. Has the stated official policy changed in the last 10 years for principals of schools with eighth grade students?

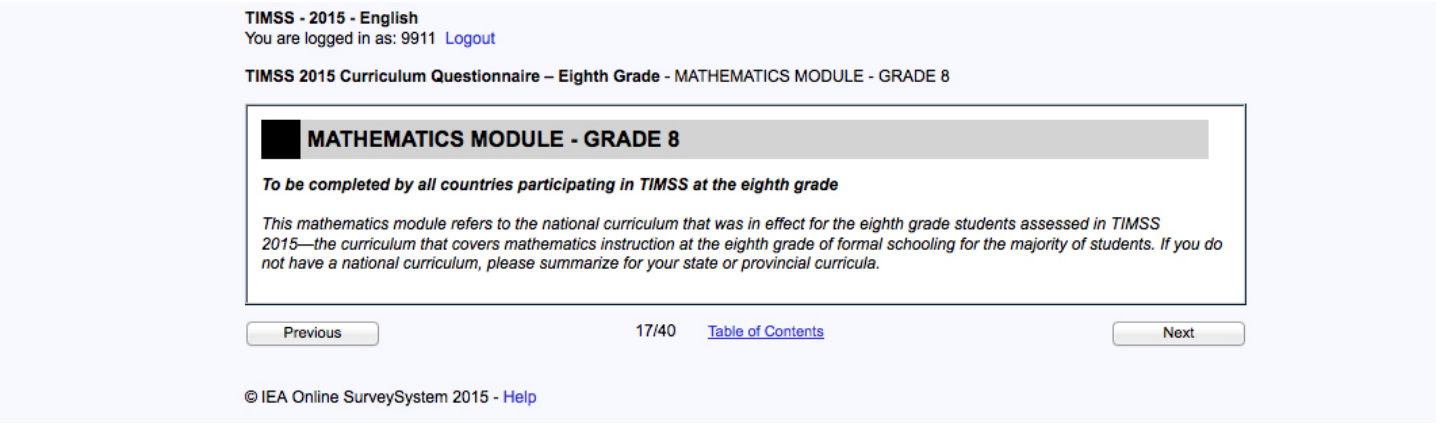
*Check **one** circle only.*

- ○ Yes
- ○ No

If Yes….

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

Previous 16/40 Table of Contents Next


TIMSS - 2015 - English
You are logged in as: 9911 Logout
TIMSS 2015 Curriculum Questionnaire – Eighth Grade - MATHEMATICS MODULE - GRADE 8
MATHEMATICS MODULE - GRADE 8
To be completed by all countries participating in TIMSS at the eighth grade
This mathematics module refers to the national curriculum that was in effect for the eighth grade students assessed in TIMSS 2015—the 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.
Previous
17/40
Table of Contents
Next
© IEA Online SurveySystem 2015 - Help

TIMSS - 2015 - English
You are logged in as: 9911 Logout

TIMSS 2015 Curriculum Questionnaire – Eighth Grade - About the Eighth Grade Mathematics Curriculum

About the Eighth Grade Mathematics Curriculum

This mathematics module refers to the national curriculum that was in effect for the eighth grade students assessed in TIMSS 2015—the 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.

M1. 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?

Previous 18/40 Table of Contents Next

TIMSS - 2015 - English
You are logged in as: 9911 Logout

TIMSS 2015 Curriculum Questionnaire – Eighth Grade - About the Eighth Grade Mathematics Curriculum

M2. A. In what year was the 2014/2015 mathematics curriculum introduced?

Comments:

B. Is the mathematics curriculum currently being revised?

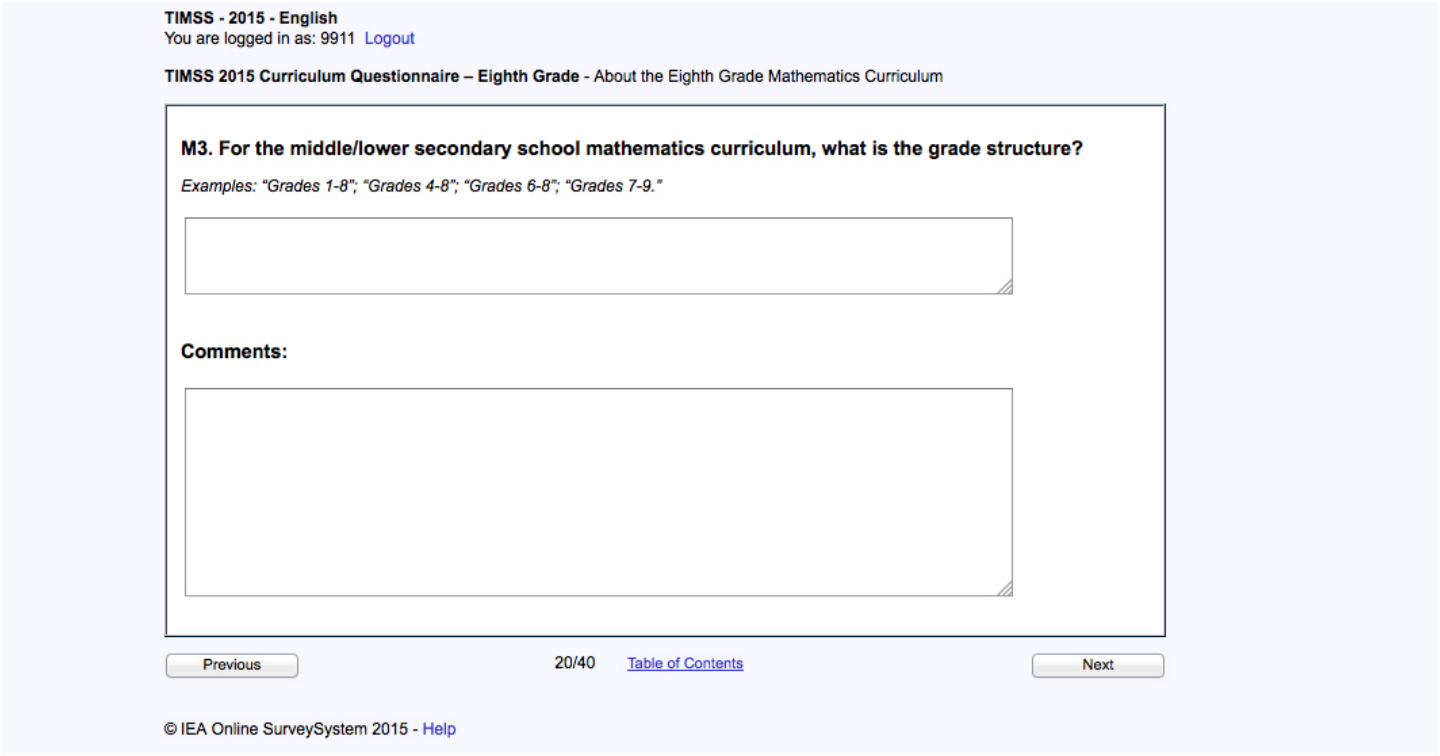
*Check **one** circle only.*

- ○ Yes
- ○ No

If Yes…
Please explain:

If No…
Comments:

Previous 19/40 Table of Contents Next



TIMSS - 2015 - English
You are logged in as: 9911 Logout

TIMSS 2015 Curriculum Questionnaire – Eighth Grade - About the Eighth Grade Mathematics Curriculum

M3. For the middle/lower secondary school mathematics curriculum, what is the grade structure?

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

Comments:

Previous 20/40 Table of Contents Next

© IEA Online SurveySystem 2015 - Help

TIMSS - 2015 - English
You are logged in as: 9911 Logout

TIMSS 2015 Curriculum Questionnaire – Eighth Grade - Curriculum Specifications

Curriculum Specifications

This mathematics module refers to the national curriculum that was in effect for the eighth grade students assessed in TIMSS 2015—the 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.

M4. What does the mathematics curriculum prescribe?

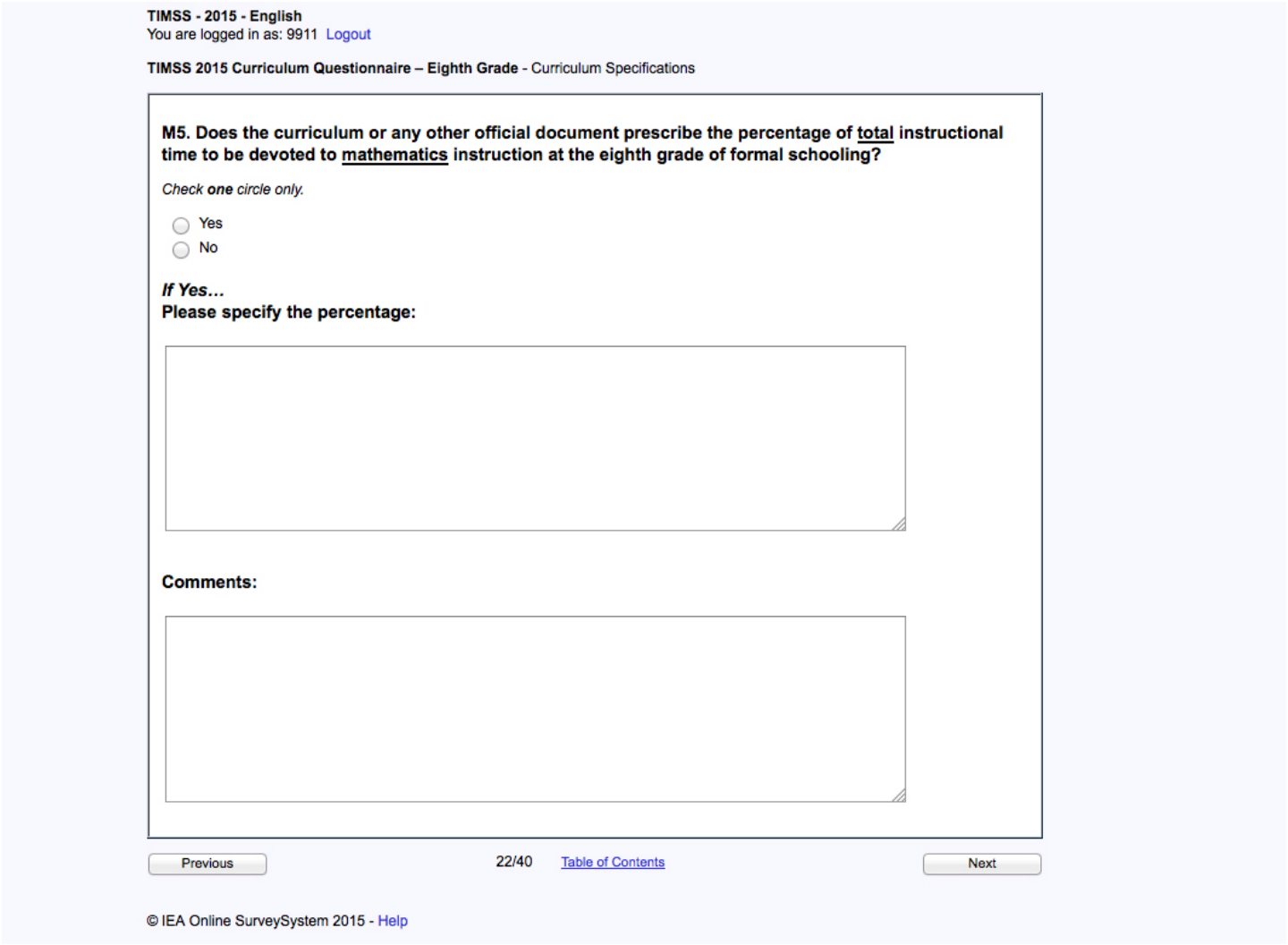
*Check **one** circle for each line.*

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

Comments:

Previous 21/40 Table of Contents Next

© IEA Online SurveySystem 2015 - Help



TIMSS - 2015 - English
You are logged in as: 9911 Logout

TIMSS 2015 Curriculum Questionnaire – Eighth Grade - Curriculum Specifications

M5. Does the curriculum or any other official document prescribe the percentage of total instructional time to be devoted to mathematics instruction at the eighth grade of formal schooling?

*Check **one** circle only.*

- ○ Yes
- ○ No

If Yes…
Please specify the percentage:

Comments:

Previous 22/40 Table of Contents Next

© IEA Online SurveySystem 2015 - Help

TIMSS - 2015 - English
You are logged in as: 9911 Logout

TIMSS 2015 Curriculum Questionnaire – Eighth Grade - Curriculum Specifications

M6. How is the mathematics curriculum implementation evaluated?

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

	Yes	No
a) Visits by inspectors	○	○
b) Research programs	○	○
c) School self-evaluation	○	○
d) National or regional examinations	○	○
e) Other Please specify below:	○	○

Comments:

Previous 23/40 Table of Contents Next

TIMSS - 2015 - English
You are logged in as: 9911 Logout

TIMSS 2015 Curriculum Questionnaire – Eighth Grade - Instructional Materials and Use of Technology

Instructional Materials and Use of Technology

This mathematics module refers to the national curriculum that was in effect for the eighth grade students assessed in TIMSS 2015—the 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.

M7. A. Is there a process for approving the mathematics instructional materials?

*Check **one** circle only.*

- ○ Yes
- ○ No

If Yes…
Please describe the process, and what materials (e.g., textbooks, workbooks, online materials) must be approved through this process:

B. Does the national curriculum contain statements/policies about the use of technology (e.g., computers, tablets, calculators) in grade 8 mathematics instruction?

*Check **one** circle only.*

- ○ Yes
- ○ No

If Yes…
What are the statements/policies?

(Continued on Next Page)

TIMSS - 2015 - English *(Continued)*
You are logged in as: 9911 Logout

TIMSS 2015 Curriculum Questionnaire – Eighth Grade - Instructional Materials and Use of Technology

C. Does the national curriculum contain statements/policies about student use of technological aids (e.g., computers, tablets, calculators) in grade 8 mathematics tests or examinations?

*Check **one** circle only.*

- ○ Yes
- ○ No

If Yes…
What are the statements/policies?

Comments:

Previous 24/40 Table of Contents Next

© IEA Online SurveySystem 2015 - Help

TIMSS - 2015 - English
You are logged in as: 9911 Logout

TIMSS 2015 Curriculum Questionnaire – Eighth Grade - Eighth Grade Mathematics Topics Covered

Eighth Grade Mathematics Topics Covered

This mathematics module refers to the national curriculum that was in effect for the eighth grade students assessed in TIMSS 2015—the 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.

M8. (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.

(ii) 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., fractions in part A topic (c)], please explain in the comment field.

	(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) *Check the corresponding grade(s) for each topic.*											
A. Number	**All or almost all students**	**Only the more able students**	**Not included in the curriculum through grade 8**	**PP**	**G1**	**G2**	**G3**	**G4**	**G5**	**G6**	**G7**	**G8**	**G9**	**G10**	**G11**	**G12**
a) Computing with whole numbers	○	○	○	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
b) Comparing and ordering rational numbers	○	○	○	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
c) Computing with rational numbers (fractions, decimals, and integers)	○	○	○	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
d) Concepts of irrational numbers	○	○	○	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
e) Problem solving involving percents or proportions	○	○	○	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

Comments:

Previous 25/40 Table of Contents Next

TIMSS - 2015 - English
You are logged in as: 9911 Logout

TIMSS 2015 Curriculum Questionnaire – Eighth Grade - Eighth Grade Mathematics Topics Covered

M8. (continued)

(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.

(ii) 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., fractions in part A topic (c)], please explain in the comment field.

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

Comments:

Previous 26/40 Table of Contents Next

TIMSS - 2015 - English
You are logged in as: 9911 Logout

TIMSS 2015 Curriculum Questionnaire – Eighth Grade - Eighth Grade Mathematics Topics Covered

M8. (continued)

(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.

(ii) 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., fractions in part A topic (c)], please explain in the comment field.

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

Comments:

Previous 27/40 Table of Contents Next

TIMSS - 2015 - English
You are logged in as: 9911 Logout

TIMSS 2015 Curriculum Questionnaire – Eighth Grade - Eighth Grade Mathematics Topics Covered

M8. (continued)

(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.

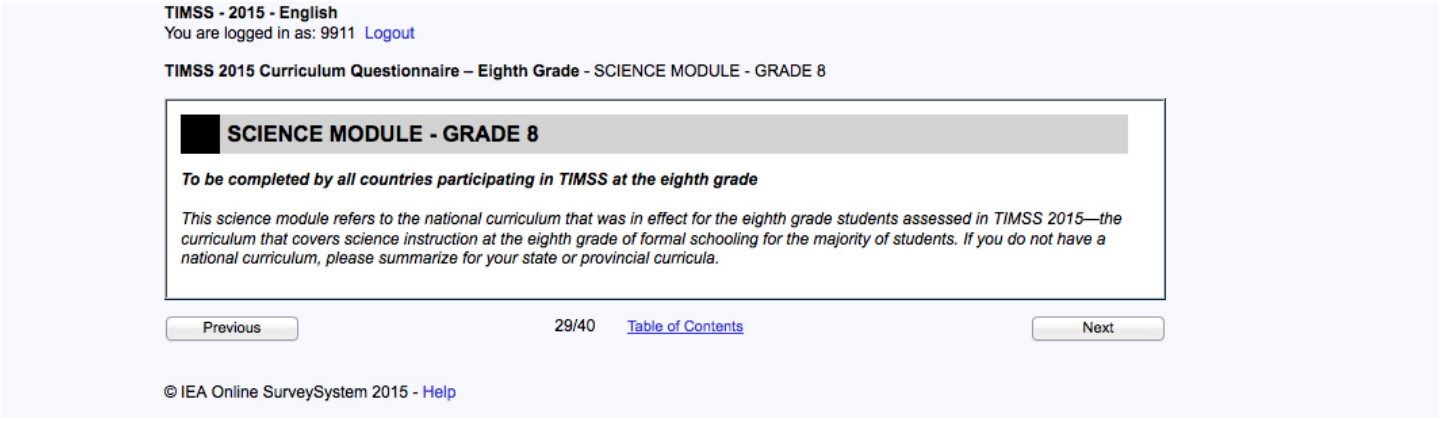
(ii) Across grades from preprimary through upper secondary education, at what grade(s) are the topics primarily intended to be taught?

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., fractions in part A topic (c)], please explain in the comment field.

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

Comments:

Previous 28/40 Table of Contents Next


TIMSS - 2015 - English
You are logged in as: 9911 Logout

TIMSS 2015 Curriculum Questionnaire – Eighth Grade - SCIENCE MODULE - GRADE 8

SCIENCE MODULE - GRADE 8

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

This science module refers to the national curriculum that was in effect for the eighth grade students assessed in TIMSS 2015—the 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.

Previous 29/40 Table of Contents Next

© IEA Online SurveySystem 2015 - Help

TIMSS - 2015 - English
You are logged in as: 9911 Logout

TIMSS 2015 Curriculum Questionnaire – Eighth Grade - About the Eighth Grade Science Curriculum

About the Eighth Grade Science Curriculum

This science module refers to the national curriculum that was in effect for the eighth grade students assessed in TIMSS 2015—the 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.

S1. 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?

Previous 30/40 Table of Contents Next

TIMSS - 2015 - English
You are logged in as: 9911 Logout

TIMSS 2015 Curriculum Questionnaire – Eighth Grade - About the Eighth Grade Science Curriculum

S2. A. In what year was the 2014/2015 science curriculum introduced?

Comments:

B. Is the science curriculum currently being revised?

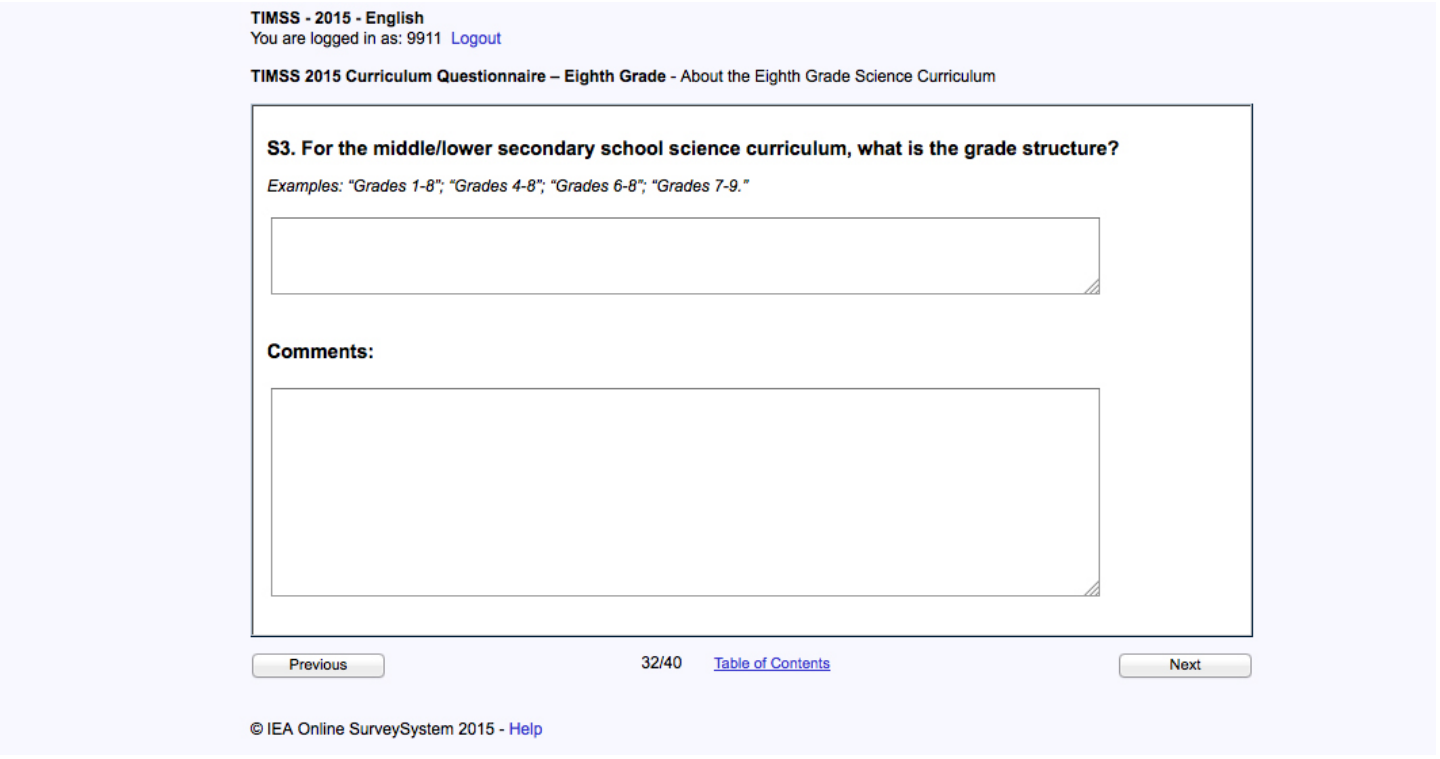
*Check **one** circle only.*

- ○ Yes
- ○ No

If Yes…
Please explain:

If No…
Comments:

Previous 31/40 Table of Contents Next



TIMSS - 2015 - English
You are logged in as: 9911 Logout

TIMSS 2015 Curriculum Questionnaire – Eighth Grade - About the Eighth Grade Science Curriculum

S3. For the middle/lower secondary school science curriculum, what is the grade structure?

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

Comments:

Previous 32/40 Table of Contents Next

© IEA Online SurveySystem 2015 - Help

TIMSS - 2015 - English
You are logged in as: 9911 Logout

TIMSS 2015 Curriculum Questionnaire – Eighth Grade - Curriculum Specifications

Curriculum Specifications

This science module refers to the national curriculum that was in effect for the eighth grade students assessed in TIMSS 2015—the 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.

S4. What does the science curriculum prescribe?

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

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

Comments:

Previous 33/40 Table of Contents Next

© IEA Online SurveySystem 2015 - Help

TIMSS - 2015 - English
You are logged in as: 9911 Logout

TIMSS 2015 Curriculum Questionnaire – Eighth Grade - Curriculum Specifications

S5. Does the curriculum or any other official document prescribe the percentage of total instructional time to be devoted to science instruction at the eighth grade of formal schooling?

*Check **one** circle only.*

- ○ Yes
- ○ No

If Yes…
Please specify the percentage:

Comments:

Previous 34/40 Table of Contents Next

TIMSS - 2015 - English
You are logged in as: 9911 Logout

TIMSS 2015 Curriculum Questionnaire – Eighth Grade - Curriculum Specifications

S6. How is the science curriculum implementation evaluated?

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

	Yes	No
a) Visits by inspectors	○	○
b) Research programs	○	○
c) School self-evaluation	○	○
d) National or regional examinations	○	○
e) Other Please specify below:	○	○

Comments:

Previous 35/40 Table of Contents Next

TIMSS - 2015 - English
You are logged in as: 9911 Logout

TIMSS 2015 Curriculum Questionnaire – Eighth Grade - Instructional Materials and Use of Technology

Instructional Materials and Use of Technology

This science module refers to the national curriculum that was in effect for the eighth grade students assessed in TIMSS 2015—the 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.

S7. A. Is there a process for approving the science instructional materials?

*Check **one** circle only.*

- ○ Yes
- ○ No

If Yes…
Please describe the process, and what materials (e.g., textbooks, workbooks, online materials) must be approved through this process:

B. Does the national curriculum contain statements/policies about the use of technology (e.g., computers, tablets, calculators) in grade 8 science instruction?

*Check **one** circle only.*

- ○ Yes
- ○ No

If Yes…
What are the statements/policies?

Previous 36/40 Table of Contents Next

© IEA Online SurveySystem 2015 - Help

TIMSS - 2015 - English
You are logged in as: 9911 Logout

TIMSS 2015 Curriculum Questionnaire – Eighth Grade - Eighth Grade Science Topics Covered

Eighth Grade Science Topics Covered

This science module refers to the national curriculum that was in effect for the eighth grade students assessed in TIMSS 2015—the 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.

S8. (i) 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?

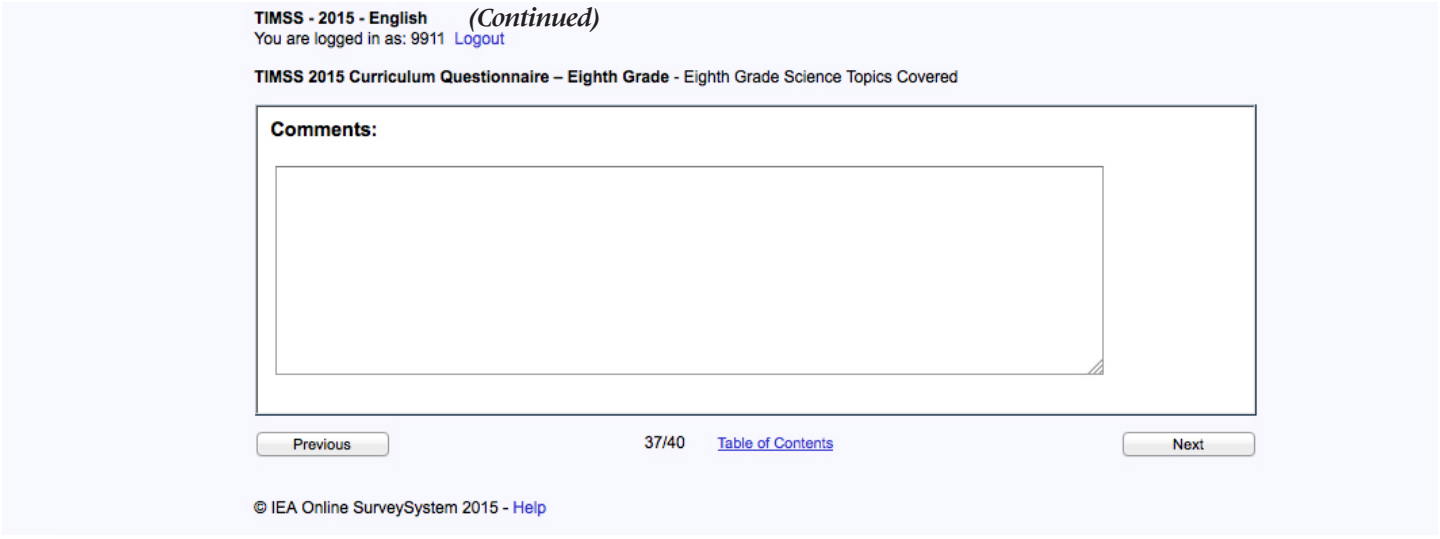
Be sure to include curriculum expectations for all grades up to and including grade 8. Grades represent years of formal schooling. For example, if "Year 9" in your country corresponds to the eighth year of formal schooling, please choose grade 8.

(ii) 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., energy flow in part A topic (f)], please explain in the comment field.

	(i) Proportion of grade 8 students expected to be taught topic			(ii) Grade(s) topic is expected to be taught preprimary (PP) through the end of upper secondary (G12)												
	*Check **one** circle for each line.*			*Check the corresponding grade(s) for each topic*												
A. Biology	**All or almost all students**	**Only the more able students**	**Not included in the curriculum through grade 8**	**PP**	**G1**	**G2**	**G3**	**G4**	**G5**	**G6**	**G7**	**G8**	**G9**	**G10**	**G11**	**G12**
a) Differences among major taxonomic groups of organisms (plants, animals, fungi, mammals, birds, reptiles, fish, amphibians)	○	○	○	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
b) Major organs and organ systems in humans and other organisms (structure/function, life processes that maintain stable bodily conditions)	○	○	○	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
c) Cells, their structure and functions, including respiration and photosynthesis as cellular processes	○	○	○	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
d) Life cycles, sexual reproduction, and heredity (passing on of traits, inherited versus acquired/learned characteristics)	○	○	○	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
e) Role of variation and adaptation in survival/extinction of species in a changing environment (including fossil evidence for changes in life on Earth over time)	○	○	○	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
f) Interdependence of populations of organisms in an ecosystem (e.g., energy flow, food webs, competition, predation) and factors affecting population size in an ecosystem	○	○	○	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
g) Human health (causes of infectious diseases, methods of infection, prevention, immunity) and the importance of diet and exercise in maintaining health	○	○	○	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

(Continued on Next Page)


TIMSS - 2015 - English (Continued)
You are logged in as: 9911 Logout
TIMSS 2015 Curriculum Questionnaire – Eighth Grade - Eighth Grade Science Topics Covered
Comments:
Previous
37/40
Table of Contents
Next
© IEA Online SurveySystem 2015 - Help

TIMSS - 2015 - English
You are logged in as: 9911 Logout

TIMSS 2015 Curriculum Questionnaire – Eighth Grade - Eighth Grade Science Topics Covered

S8. (continued)

(i) 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.

(ii) 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., energy flow in part A topic (f)], please explain in the comment field.

	(i) Proportion of grade 8 students expected to be taught topic			(ii) Grade(s) topic is expected to be taught preprimary (PP) through the end of upper secondary (G12)												
	*Check **one** circle for each line.*			*Check the corresponding grade(s) for each topic*												
B. Chemistry	**All or almost all students**	**Only the more able students**	**Not included in the curriculum through grade 8**	**PP**	**G1**	**G2**	**G3**	**G4**	**G5**	**G6**	**G7**	**G8**	**G9**	**G10**	**G11**	**G12**
a) Classification, composition, and particulate structure of matter (elements, compounds, mixtures, molecules, atoms, protons, neutrons, electrons)	○	○	○	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
b) Physical and chemical properties of matter	○	○	○	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
c) Mixtures and solutions (solvent, solute, concentration/dilution, effect of temperature on solubility)	○	○	○	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
d) Properties and uses of common acids and bases	○	○	○	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
e) Chemical change (transformation of reactants, evidence of chemical change, conservation of matter, common oxidation reactions – combustion, rusting, tarnishing)	○	○	○	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
f) The role of electrons in chemical bonds	○	○	○	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

Comments:

Previous 38/40 Table of Contents Next

S8. (continued)

(i) 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.

(ii) 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., energy flow in part A topic (f)], please explain in the comment field.

	(i) Proportion of grade 8 students expected to be taught topic			(ii) Grade(s) topic is expected to be taught preprimary (PP) through the end of upper secondary (G12)												
	*Check **one** circle for each line.*			*Check the corresponding grade(s) for each topic*												
C. Physics	**All or almost all students**	**Only the more able students**	**Not included in the curriculum through grade 8**	**PP**	**G1**	**G2**	**G3**	**G4**	**G5**	**G6**	**G7**	**G8**	**G9**	**G10**	**G11**	**G12**
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)	○	○	○	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
b) Energy forms, transformations, heat, and temperature	○	○	○	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
c) Basic properties/ behaviors of light (reflection, refraction, light and color, simple ray diagrams) and sound (transmission through media, loudness, pitch, amplitude, frequency)	○	○	○	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
d) Electric circuits (flow of current; types of circuits - parallel/ series) and properties and uses of permanent magnets and electromagnets	○	○	○	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
e) Forces and motion (types of forces, basic description of motion, effects of density and pressure)	○	○	○	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

Comments:

TIMSS - 2015 - English
You are logged in as: 9911 Logout

TIMSS 2015 Curriculum Questionnaire – Eighth Grade - Eighth Grade Science Topics Covered

S8. (continued)

(i) 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.

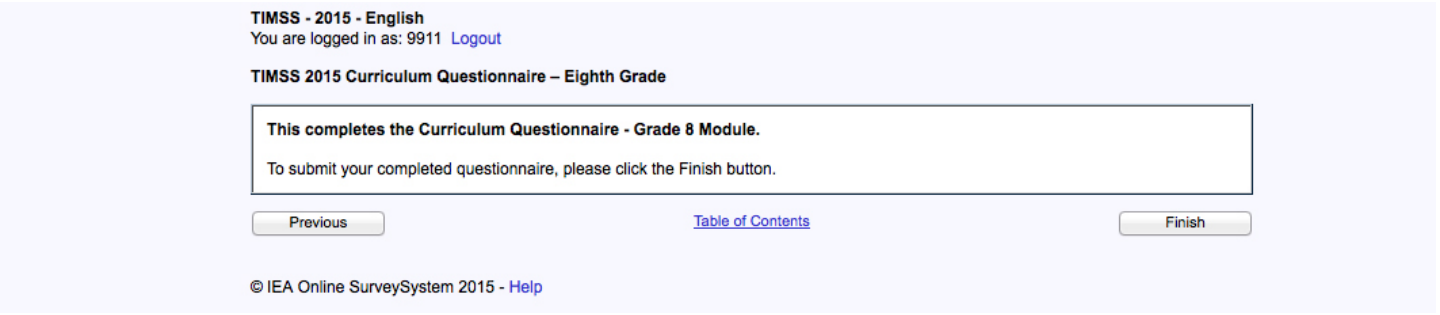
(ii) Across grades from preprimary through upper secondary education, at what grade(s) are the topics primarily intended to be taught?

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., energy flow in part A topic (f)], please explain in the comment field.

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

Comments:

Previous 40/40 Table of Contents Next


TIMSS - 2015 - English
You are logged in as: 9911 Logout

TIMSS 2015 Curriculum Questionnaire – Eighth Grade

This completes the Curriculum Questionnaire - Grade 8 Module.

To submit your completed questionnaire, please click the Finish button.

Previous | Table of Contents | Finish

© IEA Online SurveySystem 2015 - Help

BOSTON
COLLEGE

timss.bc.edu

TIMSS 2015

Grade 8

International Association
for the Evaluation of
Educational Achievement