

**U.S. Technical Report and User Guide for the
2019 Trends in International Mathematics and
Science Study (TIMSS) (continued)**

Appendix D
TIMSS 2019 Questionnaires

Appendix D: TIMSS 2019 Questionnaires

TABLE OF CONTENTS

<u>Exhibit</u>		<u>Page</u>
D-1.	TIMSS 2019 Grade 4 School Questionnaire.....	D-2
D-2.	TIMSS 2019 Grade 4 Teacher Questionnaire.....	D-14
D-3.	TIMSS 2019 Grade 4 Student Questionnaire	D-34
D-4.	TIMSS 2019 Grade 4 Curriculum Questionnaire	D-62
D-5.	TIMSS 2019 Grade 8 School Questionnaire.....	D-118
D-6.	TIMSS 2019 Grade 8 Math Teacher Questionnaire	D-130
D-7.	TIMSS 2019 Grade 8 Science Teacher Questionnaire	D-146
D-8.	TIMSS 2019 Grade 8 Student Questionnaire	D-162
D-9.	TIMSS 2019 Grade 8 Curriculum Questionnaire	D-194



Place Label Here

School ID _____

Checksum _____

TRENDS IN INTERNATIONAL MATHEMATICS AND SCIENCE STUDY

School Questionnaire

Grade 4

National Center for Education Statistics
U.S. Department of Education
Potomac Center Plaza (PCP), 550 12th St., SW, 4th floor
Washington, DC 20202
USA

The National Center for Education Statistics (NCES), within the U.S. Department of Education, conducts TIMSS in the United States as authorized by the Education Sciences Reform Act of 2002 (ESRA 2002, 20 U.S.C. §9543). All of the information you provide may be used only for statistical purposes and may not be disclosed, or used, in identifiable form for any other purpose except as required by law (20 U.S.C. §9573 and 6 U.S.C. §151).

According to the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless such collection displays a valid OMB control number. The valid OMB control number for this voluntary information collection is 1850-0695. The time required to complete this information collection is estimated to average 30 minutes per principal, including the time to review instructions, search existing data resources, gather the data needed, and complete and review the information collection. If you have any comments or concerns regarding the accuracy of the time estimate(s), suggestions for improving the form, or questions about the status of your individual submission of this form, write directly to: Trends in International Mathematics and Science Study (TIMSS), National Center for Education Statistics, Potomac Center Plaza (PCP), 550 12th St., SW, 4th floor, Washington, DC 20202.

OMB No. 1850-0695, Approval Expires 01/31/2021.

© IEA, 2018
1117377 Printed in the USA ISD19889

TIMSS & PIRLS
International Study Center
Lynch School of Education
BOSTON COLLEGE

School Questionnaire

Your school has agreed to participate in TIMSS 2019 (Trends in International Mathematics and Science Study), an educational research project sponsored by the International Association for the Evaluation of Educational Achievement (IEA). TIMSS measures trends in student achievement in mathematics and science and studies differences in national education systems in almost 60 countries in order to help improve teaching and learning worldwide.

This questionnaire is addressed to school principals and department heads who are asked to supply information about their schools. Since your school has been selected as part of a nationwide sample, your responses are very important in helping to describe fourth-grade education in the United States.

It is important that you answer each question carefully so that the information provided reflects the situation in your school as accurately as possible. Some of the questions will require that you look up school records, so you may wish to arrange for the assistance of another staff member to help provide this information.

Since TIMSS is an international study and all countries are using the same questionnaire, you may find that some of the questions seem unusual or are not entirely relevant to you or schools in the United States. Nevertheless, it is important that you do your best to answer all of the questions so comparisons can be made across countries in the study.

It is estimated that you will need about 30 minutes to complete the questionnaire. We appreciate the time and effort this takes and thank you for your cooperation and contribution.

When you have completed the questionnaire, please place it in the accompanying envelope and return it to the TIMSS school coordinator.

NCES is authorized to collect information from the questionnaire under the Education Sciences Reform Act of 2002 (ESRA 2002, 20 U.S.C. §9543). You do not have to provide the information requested. However, the information you provide will help the U.S. Department of Education's ongoing efforts to understand better how the educational system in the United States compares to that in other countries. There are no penalties should you choose not to participate in this study. All of the information you provide may be used only for statistical purposes and may not be disclosed, or used, in identifiable form for any other purpose except as required by law (20 U.S.C. §9573 and 6 U.S.C. §151). Your responses will be combined with those from other participants to produce summary statistics and reports.

This survey is estimated to take an average of 30 minutes, including time for reviewing instructions, and completing and reviewing the collection of information. An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing burden to: Trends in International Mathematics and Science Study (TIMSS), National Center for Education Statistics, Potomac Center Plaza (PCP), 550 12th St., SW, 4th floor, Washington, DC 20202.

Thank you.

TIMSS 2019

School Enrollment and Characteristics

1 _____

What is the total enrollment of students in your school as of April 1, 2019?

_____ students
Write in the number.

2 _____

What is the total enrollment of fourth-grade students in your school as of April 1, 2019?

_____ students
Write in the number.

3 _____

Approximately what percentage of students in your school have the following backgrounds?

Fill in only **one** circle for each row.

	0 to 10%	11 to 25%	26 to 50%	More than 50%
a) Come from economically disadvantaged homes -----	①	②	③	④
b) Come from economically affluent homes -----	①	②	③	④

4 _____

Around the 1st of October 2018, what percentage of students at this school were eligible to receive free or reduced-price lunches through the National School Lunch Program?

_____ percentage of students
Write in the number.

5 _____

Approximately what percentage of students in your school have English as their native language?

Fill in **one** circle only.

- More than 90% -- ①
- 76 to 90% -- ②
- 51 to 75% -- ③
- 26 to 50% -- ④
- 25% or less -- ⑤

6 _____

Of the students currently enrolled in your school, what percentage has been identified as limited-English proficient (LEP)/English language learners (ELL)?

Fill in **one** circle only.

- 0% -- ①
- 1 - 5% -- ②
- 6 - 10% -- ③
- 11 - 25% -- ④
- 26 - 50% -- ⑤
- 51 - 75% -- ⑥
- 76 - 90% -- ⑦
- Over 90% -- ⑧

7

What type of school is this?

Fill in **one** circle only.

- Regular public school - ①
- A regular public school with a magnet program - ②
- A magnet school or school with a special program emphasis (e.g., Montessori, science/math school, performing arts school, talented/gifted school, foreign language immersion school) - ③
- Special education: a school that primarily serves students with disabilities - ④
- Alternative: a school designed to address the needs of students, typically at risk of educational failure, which cannot be met in regular schools - ⑤
- Vocational - ⑥
- Charter School - ⑦
- Private (independent) - ⑧
- Private (religiously affiliated) - ⑨
- Other - ⑩

9

Which best characterizes the average income level of the school's immediate area?

Fill in **one** circle only.

- High --- ①
- Medium --- ②
- Low --- ③

8

A. How many people live in the city, town, or area where your school is located?

Fill in **one** circle only.

- More than 500,000 people -- ①
- 100,001 to 500,000 people -- ②
- 50,001 to 100,000 people -- ③
- 30,001 to 50,000 people -- ④
- 15,001 to 30,000 people -- ⑤
- 3,001 to 15,000 people -- ⑥
- 3,000 people or fewer -- ⑦

B. Which best describes the immediate area in which your school is located?

Fill in **one** circle only.

- Urban—Densely populated -- ①
- Suburban—On fringe or outskirts of urban area -- ②
- Medium size city or large town -- ③
- Small town or village -- ④
- Remote rural -- ⑤

Instructional Time

10

For the fourth-grade students in your school:

A. How many days per year is your school open for instruction?

_____ days
Write in the number.

B. What is the total instructional time, excluding breaks, in a typical day?

_____ hours _____ minutes
Write in the number of hours and minutes per day.

C. In one calendar week, how many days is the school open for instruction?

Fill in **one** circle only.

- 6 days -- ①
- 5 1/2 days -- ②
- 5 days -- ③
- 4 1/2 days -- ④
- 4 days -- ⑤
- Other -- ⑥

Resources and Technology

11

How many computers (including tablets) does your school have for use by fourth-grade students?

_____ computers
Write in the number.

12

A. Does your school have a science laboratory that can be used by fourth-grade students?

Fill in **one** circle only.

Yes -- ①

No -- ②

B. Do teachers usually have assistance available when students are conducting science experiments?

Fill in **one** circle only.

Yes -- ①

No -- ②

13

Does your school use an online learning management system to support learning (e.g., teacher-student communication, management of grades, student access to course materials)?

Fill in **one** circle only.

Yes -- ①

No -- ②

14

A. Does your school have a school library?

Fill in **one** circle only.

Yes -- ①

No -- ②

(If No, go to question 15)

If Yes,

B. Approximately how many books (print) with different titles does your school library have (exclude magazines and periodicals)?

Fill in **one** circle only.

2,000 books or fewer --- ①

More than 2,000 books --- ②

15

Does your school have classroom libraries?

Fill in **one** circle only.

Yes -- ①

No -- ②

16

Does your school provide students access to digital learning resources (e.g., books, videos)?

Fill in **one** circle only.

Yes -- ①

No -- ②

17

How much is your school's capacity to provide instruction affected by a shortage or inadequacy of the following?

Fill in only one circle for each row

	Not at all	A little	Some	A lot
A. General School Resources				
a) Instructional materials (e.g., textbooks) -----	①	②	③	④
b) Supplies (e.g., papers, pencils, materials) -----	①	②	③	④
c) School buildings and grounds -----	①	②	③	④
d) Heating/cooling and lighting systems -----	①	②	③	④
e) Instructional space (e.g., classrooms) -----	①	②	③	④
f) Technologically competent staff -----	①	②	③	④
g) Audio-visual resources for delivery of instruction (e.g., interactive white boards, digital projectors) -----	①	②	③	④
h) Computer technology for teaching and learning (e.g., computers or tablets for student use) -----	①	②	③	④
i) Resources for students with disabilities -----	①	②	③	④

Fill in only one circle for each row.

	Not at all	A little	Some	A lot
B. Resources for Mathematics Instruction				
a) Teachers with a specialization in mathematics -----	①	②	③	④
b) Computer software/ applications for mathematics instruction -----	①	②	③	④
c) Library resources relevant to mathematics instruction -----	①	②	③	④
d) Calculators for mathematics instruction -----	①	②	③	④
e) Concrete objects or materials to help students understand quantities or procedures -----	①	②	③	④
C. Resources for Science Instruction				
a) Teachers with a specialization in science -----	①	②	③	④
b) Computer software/ applications for science instruction -----	①	②	③	④
c) Library resources relevant to science instruction -----	①	②	③	④
d) Science equipment and materials for experiments -----	①	②	③	④

School Emphasis on Academic Success

18

How would you characterize each of the following within your school?

Fill in only **one** circle for each row.

	Very high	High	Medium	Low	Very low
a) Teachers' understanding of the school's curricular goals	①	②	③	④	⑤
b) Teachers' degree of success in implementing the school's curriculum	①	②	③	④	⑤
c) Teachers' expectations for student achievement	①	②	③	④	⑤
d) Teachers' ability to inspire students	①	②	③	④	⑤
e) Parental involvement in school activities	①	②	③	④	⑤
f) Parental commitment to ensure that students are ready to learn	①	②	③	④	⑤
g) Parental expectations for student achievement	①	②	③	④	⑤
h) Parental support for student achievement	①	②	③	④	⑤
i) Students' desire to do well in school	①	②	③	④	⑤
j) Students' ability to reach school's academic goals	①	②	③	④	⑤
k) Students' respect for classmates who excel academically	①	②	③	④	⑤

School Discipline and Safety

19

To what degree is each of the following a problem among fourth-grade students in your school?

Fill in only **one** circle for each row.

	Not a problem	Minor problem	Moderate problem	Serious problem
a) Arriving late at school	①	②	③	④
b) Absenteeism (i.e., unjustified absences)	①	②	③	④
c) Classroom disturbance	①	②	③	④
d) Cheating	①	②	③	④
e) Profanity	①	②	③	④
f) Vandalism	①	②	③	④
g) Theft	①	②	③	④
h) Intimidation or verbal abuse among students (including texting, emailing, etc.)	①	②	③	④
i) Physical fights among students	①	②	③	④
j) Intimidation or verbal abuse of teachers or staff (including texting, emailing, etc.)	①	②	③	④

20

To what degree is each of the following a problem among teachers in your school?

Fill in only **one** circle for each row.

	Not a problem	Minor problem	Moderate problem	Serious problem
a) Arriving late or leaving early	①	②	③	④
b) Absenteeism	①	②	③	④

Teachers in Your School

21

In your school, are any of the following used to evaluate the practice of fourth-grade teachers?

Fill in only **one** circle for each row.

- | | Yes | No |
|---|-----|----|
| a) Observations by the principal or senior staff ----- | ① | ② |
| b) Observations by inspectors or other persons external to the school ----- | ① | ② |
| c) Student achievement ----- | ① | ② |
| d) Teacher peer review ----- | ① | ② |

School Readiness

22

About how many of the students in your school can do the following when they begin the first grade of primary/elementary school?

Fill in only **one** circle for each row.

- | | Less than 25% | 25–50% | 51–75% | More than 75% |
|--|---------------|--------|--------|---------------|
| a) Recognize most of the letters of the alphabet ----- | ① | ② | ③ | ④ |
| b) Read some words ----- | ① | ② | ③ | ④ |
| c) Read sentences ----- | ① | ② | ③ | ④ |
| d) Write letters of the alphabet -- | ① | ② | ③ | ④ |
| e) Write their names ----- | ① | ② | ③ | ④ |
| f) Write words other than their names ----- | ① | ② | ③ | ④ |
| g) Count up to 100 or higher ----- | ① | ② | ③ | ④ |
| h) Recognize written numbers from 1 - 10 ----- | ① | ② | ③ | ④ |
| i) Recognize written numbers higher than 10 ----- | ① | ② | ③ | ④ |
| j) Write numbers from 1-10 ----- | ① | ② | ③ | ④ |
| k) Do simple addition ----- | ① | ② | ③ | ④ |
| l) Do simple subtraction ----- | ① | ② | ③ | ④ |

Principal Experience and Education

23

By the end of this school year, how many years altogether will you have been a principal?

_____ years
Please **round** to the nearest whole number.

24

By the end of this school year, how many years will you have been a principal at this school?

_____ years
Please **round** to the nearest whole number.

25

What is the highest level of formal education you have completed?

Fill in **one** circle only.

- Did not complete Bachelor's degree (4-year college program) --- ①
- Bachelor's degree (4-year college program) --- ②
- Master's degree or professional degree (MD, DDS, lawyer, minister) --- ③
- Doctorate (Ph.D., Ed.D.) --- ④

26

Do you hold the following qualifications or credentials in educational leadership?

Fill in only **one** circle for each row.

- | | Yes | No |
|---|-----|----|
| a) Principal Certification ----- | ① | ② |
| b) Master's degree or professional degree (MD, DDS, lawyer, minister) ----- | ① | ② |
| c) Doctorate (Ph.D., Ed.D.) ----- | ① | ② |

Thank You

Thank you for the thought, time, and effort you have put into completing this questionnaire.

Grade 4



BOSTON
COLLEGE

timss.bc.edu



© IEA, 2018
International Association
for the Evaluation of
Educational Achievement



Place Label Here

School ID: _____

Class ID: _____

Teacher ID: _____

Link #: _____ Subject: _____

Checksum: _____

TRENDS IN INTERNATIONAL MATHEMATICS AND SCIENCE STUDY

Teacher Questionnaire

Grade 4

National Center for Education Statistics

U.S. Department of Education
Potomac Center Plaza (PCP), 550 12th St., SW, 4th floor
Washington, DC 20202
USA

The National Center for Education Statistics (NCES), within the U.S. Department of Education, conducts TIMSS in the United States as authorized by the Education Sciences Reform Act of 2002 (ESRA 2002, 20 U.S.C. §9543). All of the information you provide may be used only for statistical purposes and may not be disclosed, or used, in identifiable form for any other purpose except as required by law (20 U.S.C. §9573 and 6 U.S.C. §151).

According to the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless such collection displays a valid OMB control number. The valid OMB control number for this voluntary information collection is 1850-0695. The time required to complete this information collection is estimated to average 30 minutes per teacher, including the time to review instructions, search existing data resources, gather the data needed, and complete and review the information collection. If you have any comments or concerns regarding the accuracy of the time estimate(s), suggestions for improving the form, or questions about the status of your individual submission of this form, write directly to: Trends in International Mathematics and Science Study (TIMSS), National Center for Education Statistics, Potomac Center Plaza (PCP), 550 12th St., SW, 4th floor, Washington, DC 20202.

OMB No. 1850-0695, Approval Expires 01/31/2021.

© IEA, 2018
1117374 Printed in the USA ISD19886

TIMSS & PIRLS
International Study Center
Lynch School of Education
BOSTON COLLEGE

Teacher Questionnaire

Your school has agreed to participate in TIMSS 2019 (Trends in International Mathematics and Science Study), an educational research project sponsored by the International Association for the Evaluation of Educational Achievement (IEA). TIMSS measures trends in student achievement in mathematics and science and studies differences in national education systems in almost 60 countries in order to help improve teaching and learning worldwide.

This questionnaire is addressed to teachers of fourth-grade students, and seeks information about teachers' academic and professional backgrounds, classroom resources, instructional practices, and attitudes toward teaching. Since your class has been selected as part of a nationwide sample, your responses are very important in helping to describe fourth-grade education in the United States.

Some of the questions in the questionnaire refer to the **"TIMSS class"** or **"this class."** This is the class that is identified on the front of this booklet, and which will be tested as part of TIMSS in your school. If you teach some but not all of the students in the TIMSS class, please think only of the students that you teach when answering these class-specific questions. It is important that you answer each question carefully so that the information that you provide reflects your situation as accurately as possible.

Since TIMSS is an international study and all countries are using the same questionnaire, you may find that some of the questions seem unusual or are not entirely relevant to you or schools in the United States. Nevertheless, it is important that you do your best to answer all of the questions so comparisons can be made across countries in the study.

It is estimated that you will need about 30 minutes to complete the questionnaire. We appreciate the time and effort that this takes and thank you for your cooperation and contribution.

When you have completed the questionnaire, please place it in the accompanying envelope and return it to the TIMSS school coordinator.

NCES is authorized to collect information from this questionnaire under the Education Sciences Reform Act of 2002 (ESRA 2002, 20 U.S.C. §9543). You do not have to provide the information requested. However, the information you provide will help the U.S. Department of Education's ongoing efforts to understand better how the educational system in the United States compares to that in other countries. There are no penalties should you choose not to participate in this study. All of the information you provide may be used only for statistical purposes and may not be disclosed, or used, in identifiable form for any other purpose except as required by law (20 U.S.C. §9573 and 6 U.S.C. §151). Your responses will be combined with those from other participants to produce summary statistics and reports.

This survey is estimated to take an average of 30 minutes, including time for reviewing instructions, and completing and reviewing the collection of information. An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing burden to: Trends in International Mathematics and Science Study (TIMSS), National Center for Education Statistics, Potomac Center Plaza (PCP), 550 12th St., SW, 4th floor, Washington, DC 20202.

Thank you.

TIMSS 2019

About You

1 _____

What year did you start teaching?

Please write in a year.

2 _____

At the end of this school year, how many years will you have taught altogether?

_____ years
Please **round** to the nearest whole number.

3 _____

Are you female or male?

Fill in **one** circle only.

Female --- ①

Male --- ②

4 _____

How old are you?

Fill in **one** circle only.

Under 25 --- ①

25–29 --- ②

30–39 --- ③

40–49 --- ④

50–59 --- ⑤


60 or more --- ⑥

5 _____

What is the **highest** level of formal education you have completed?

Fill in **one** circle only.

Did not complete high school --- ①

High school graduate --- ② 

(If you have not completed more than high school, go to question 7)

Associate's degree
(2-year college program) --- ③

Bachelor's degree
(4-year college program) --- ④

Master's degree or professional
degree (MD, DDS, lawyer, minister) --- ⑤

Doctorate (Ph.D., Ed.D.) --- ⑥

6 _____

A. During your college or university education, what was your **major or main area(s) of study**?

Fill in only **one** circle for each row.

- | | Yes | No |
|---------------------------------------|-----|----|
| a) Education—Primary/Elementary ----- | ① | ② |
| b) Education—Secondary ----- | ① | ② |
| c) Mathematics ----- | ① | ② |
| d) Science ----- | ① | ② |
| e) English ----- | ① | ② |
| f) Other ----- | ① | ② |

B. If your major or main area of study was education, did you have a specialization in any of the following?

Fill in only **one** circle for each row.

- | | Yes | No |
|---------------------------|-----|----|
| a) Mathematics ----- | ① | ② |
| b) Science ----- | ① | ② |
| c) Language/reading ----- | ① | ② |
| d) Other subject ----- | ① | ② |

School Emphasis on Academic Success

7

How would you characterize each of the following within your school?

Fill in only **one** circle for each row.

-
- Very high
High
Medium
Low
Very low
- a) Teachers' understanding of the school's curricular goals ----- ① — ② — ③ — ④ — ⑤
 - b) Teachers' degree of success in implementing the school's curriculum ----- ① — ② — ③ — ④ — ⑤
 - c) Teachers' expectations for student achievement ----- ① — ② — ③ — ④ — ⑤
 - d) Teachers' ability to inspire students ----- ① — ② — ③ — ④ — ⑤
 - e) Parental involvement in school activities ----- ① — ② — ③ — ④ — ⑤
 - f) Parental commitment to ensure that students are ready to learn ----- ① — ② — ③ — ④ — ⑤
 - g) Parental expectations for student achievement ----- ① — ② — ③ — ④ — ⑤
 - h) Parental support for student achievement ----- ① — ② — ③ — ④ — ⑤
 - i) Students' desire to do well in school ----- ① — ② — ③ — ④ — ⑤
 - j) Students' ability to reach school's academic goals ----- ① — ② — ③ — ④ — ⑤
 - k) Students' respect for classmates who excel academically ----- ① — ② — ③ — ④ — ⑤
 - l) Collaboration between school leadership (including master teachers) and teachers to plan instruction ----- ① — ② — ③ — ④ — ⑤

School Environment

8

Thinking about your current school, indicate the extent to which you agree or disagree with each of the following statements.

Fill in only **one** circle for each row.

-
- Agree a lot
Agree a little
Disagree a little
Disagree a lot
- a) This school is located in a safe neighborhood ----- ① — ② — ③ — ④
 - b) I feel safe at this school ----- ① — ② — ③ — ④
 - c) This school's security policies and practices are sufficient ----- ① — ② — ③ — ④
 - d) The students behave in an orderly manner ----- ① — ② — ③ — ④
 - e) The students are respectful of the teachers ----- ① — ② — ③ — ④
 - f) The students respect school property ----- ① — ② — ③ — ④
 - g) This school has clear rules about student conduct ----- ① — ② — ③ — ④
 - h) This school's rules are enforced in a fair and consistent manner ----- ① — ② — ③ — ④

About Being a Teacher

9

How often do you feel the following way about being a teacher?

Fill in only **one** circle for each row.

- Very often** _____
Often _____
Sometimes _____
Never or almost never _____
- a) I am content with my profession as a teacher ----- ① — ② — ③ — ④
- b) I find my work full of meaning and purpose ----- ① — ② — ③ — ④
- c) I am enthusiastic about my job ----- ① — ② — ③ — ④
- d) My work inspires me ----- ① — ② — ③ — ④
- e) I am proud of the work I do --- ① — ② — ③ — ④

10

Indicate the extent to which you agree or disagree with each of the following statements.

Fill in only **one** circle for each row.

- Agree a lot** _____
Agree a little _____
Disagree a little _____
Disagree a lot _____
- a) There are too many students in the classes ----- ① — ② — ③ — ④
- b) I have too much material to cover in class ----- ① — ② — ③ — ④
- c) I have too many teaching hours ----- ① — ② — ③ — ④
- d) I need more time to prepare for class ----- ① — ② — ③ — ④
- e) I need more time to assist individual students ----- ① — ② — ③ — ④
- f) I feel too much pressure from parents ----- ① — ② — ③ — ④
- g) I have difficulty keeping up with all of the changes to the curriculum ----- ① — ② — ③ — ④
- h) I have too many administrative tasks ----- ① — ② — ③ — ④

About Teaching the TIMSS Class

11 _____

A. How many students are in this class?

_____ students
Write in the number.

B. How many of the students in question 11A are in fourth grade?

_____ fourth-grade students
Write in the number.

12 _____

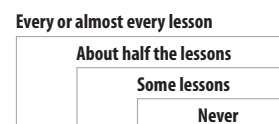
How many fourth-grade students experience difficulties understanding spoken English?

_____ students in this class
Write in the number.

13 _____

How often do you do the following in teaching this class?

Fill in only **one** circle for each row.



- a) Relate the lesson to students' daily lives ----- ① — ② — ③ — ④
- b) Ask students to explain their answers ----- ① — ② — ③ — ④
- c) Bring interesting materials to class ----- ① — ② — ③ — ④
- d) Ask students to complete challenging exercises that require them to go beyond the instruction ---- ① — ② — ③ — ④
- e) Encourage classroom discussions among students ----- ① — ② — ③ — ④
- f) Link new content to students' prior knowledge ---- ① — ② — ③ — ④
- g) Ask students to decide their own problem solving procedures ----- ① — ② — ③ — ④
- h) Encourage students to express their ideas in class ---- ① — ② — ③ — ④

14

In your view, to what extent do the following limit how you teach this class?

Fill in only **one** circle for each row.

	Not at all	Some	A lot
a) Students lacking prerequisite knowledge or skills -----	①	②	③
b) Students suffering from lack of basic nutrition -----	①	②	③
c) Students suffering from not enough sleep -----	①	②	③
d) Students absent from class ----	①	②	③
e) Disruptive students -----	①	②	③
f) Uninterested students -----	①	②	③
g) Students with mental, emotional, or psychological impairment -----	①	②	③
h) Students with difficulties understanding the language of instruction -----	①	②	③

Teaching Mathematics to the TIMSS Class

Questions 15 - 16 ask about mathematics instruction for the fourth-grade students in the TIMSS class.

15

In a typical week, how much time do you spend teaching mathematics to the students in this class?

_____ minutes per week

Write in the number of minutes per week.

Please convert the number of hours into minutes.

16

In teaching mathematics to this class, how often do you ask students to do the following?

*Fill in only **one** circle for each row.*

- | | Every or almost every lesson | About half the lessons | Some lessons | Never |
|---|------------------------------|------------------------|--------------|-------|
| a) Listen to me explain new mathematics content ----- | ① | ② | ③ | ④ |
| b) Listen to me explain how to solve problems ----- | ① | ② | ③ | ④ |
| c) Memorize rules, procedures, and facts ----- | ① | ② | ③ | ④ |
| d) Practice procedures on their own ----- | ① | ② | ③ | ④ |
| e) Apply what they have learned to new problem situations on their own ----- | ① | ② | ③ | ④ |
| f) Work problems together in the whole class with direct guidance from me ----- | ① | ② | ③ | ④ |
| g) Work in mixed ability group --- | ① | ② | ③ | ④ |
| h) Work in same ability groups --- | ① | ② | ③ | ④ |

Using Calculators and Computers for Teaching Mathematics to the TIMSS Class

Questions 17 - 18 ask about calculator and computer use for teaching mathematics to the fourth-grade students in the TIMSS class.

17

Are the students in this class permitted to use calculators during mathematics lessons?

Fill in **one** circle only.

- Yes, with unrestricted use --- ①
- Yes, with restricted use --- ②
- No, calculators are not permitted --- ③

18

A. Do the students in this class have computers (including tablets) available to use during their mathematics lessons?

Fill in **one** circle only.

- Yes --- ①
- No --- ②

(If No, go to question 19)

If Yes,

B. What access do the students have to computers?

Fill in **only one** circle for each row.

- | | Yes | No |
|--|-----|----|
| a) Each student has a computer ----- | ① | ② |
| b) The class has computers that students can share ----- | ① | ② |
| c) The school has computers that the class can use sometimes ----- | ① | ② |

C. How often do you do activities on computers during mathematics lessons to support learning for:

Fill in **only one** circle for each row.

- | | Every or almost every day | Once or twice a week | Once or twice a month | Never or almost never |
|--------------------------------------|---------------------------|----------------------|-----------------------|-----------------------|
| a) Whole class ----- | ① | ② | ③ | ④ |
| b) Low-performing students ----- | ① | ② | ③ | ④ |
| c) High-performing students -- | ① | ② | ③ | ④ |
| d) Students with special needs ----- | ① | ② | ③ | ④ |

Mathematics Topics Taught to the TIMSS Class

Question 19 asks about the topics taught and the content covered in teaching mathematics to the **fourth-grade** students in the TIMSS class.

19

The following list includes the main topics addressed by the TIMSS mathematics test. Choose the response that best describes when the students in this class have been taught each topic. If a topic was in the curriculum before the **fourth grade**, please choose “Mostly taught before this year.” If a topic was taught half this year but not yet completed, please choose “Mostly taught this year.” If a topic is not in the curriculum, please choose “Not yet taught or just introduced.”

	Mostly taught before this year _____	Mostly taught this year _____	Not yet taught or just introduced _____
A. Number			
a) Concepts of whole numbers, including place value and ordering -----	①	②	③
b) Adding, subtracting, multiplying, and dividing with whole numbers -----	①	②	③
c) Concepts of multiples and factors; odd and even numbers -----	①	②	③
d) Number sentences (finding the missing number, representing problem situations with number sentences) -----	①	②	③
e) Number patterns (extending number patterns and finding missing terms) -----	①	②	③
f) Concepts of fractions, including representing, comparing and ordering, adding and subtracting simple fractions -----	①	②	③
g) Concepts of decimals, including place value and ordering, adding and subtracting with decimals -----	①	②	③
B. Measurement and Geometry			
a) Solving problems involving length, including measuring and estimating -----	①	②	③
b) Solving problems involving mass, volume, and time -----	①	②	③
c) Finding and estimating perimeter, area, and volume -----	①	②	③
d) Parallel and perpendicular lines -----	①	②	③
e) Comparing and drawing angles -----	①	②	③
f) Elementary properties of common geometric shapes -----	①	②	③
g) Three-dimensional shapes, including relationships with their two-dimensional representations -----	①	②	③
C. Data			
a) Reading and interpreting data from tables, pictographs, bar graphs, line graphs, and pie charts -----	①	②	③
b) Organizing and representing data to help answer questions -----	①	②	③
c) Drawing conclusions from data displays -----	①	②	③

Mathematics Homework for the TIMSS Class

Mathematics Assessment of the TIMSS Class

Question 20 asks about mathematics homework for the fourth-grade students in the TIMSS class.

Questions 21-22 ask about mathematics assessment for the fourth-grade students in the TIMSS class.

20

A. How often do you usually assign mathematics homework to the students in this class?

Fill in **one** circle only.

- I do not assign mathematics homework --- ① (Go to question 21)
- Less than once a week --- ②
- 1 or 2 times a week --- ③
- 3 or 4 times a week --- ④
- Every day --- ⑤

B. When you assign mathematics homework to the students in this class, about how many minutes do you usually assign? (Consider the time it would take an average student in your class.)

Fill in **one** circle only.

- 15 minutes or less --- ①
- 16–30 minutes --- ②
- 31–60 minutes --- ③
- More than 60 minutes --- ④

C. How often do you do the following with the mathematics homework assignments for this class?

Fill in **only one** circle for each row.

- | | | | |
|--|--------------------------------|------------------|------------------------------|
| | Always or almost always | Sometimes | Never or almost never |
| a) Correct assignments and give feedback to students | ① | ② | ③ |
| b) Discuss the homework in class | ① | ② | ③ |
| c) Monitor whether or not the homework was completed | ① | ② | ③ |

21

How much importance do you place on the following assessment strategies in mathematics?

Fill in **only one** circle for each row.

- | | | | |
|---|--------------|-------------|-------------|
| | A Lot | Some | None |
| a) Observing students as they work | ① | ② | ③ |
| b) Asking students to answer questions during class | ① | ② | ③ |
| c) Short, regular written assessments | ① | ② | ③ |
| d) Longer tests (e.g., unit tests or exams) | ① | ② | ③ |
| e) Long-term projects | ① | ② | ③ |

22

About how often do fourth-grade students in this class take mathematics tests on computers or tablets?

Fill in **one** circle only.

- More than once a month --- ①
- Once a month --- ②
- Twice a year -- ③
- Once a year --- ④
- Never -- ⑤

Professional Development to Teach Mathematics

23

A. In the past two years, have you participated in professional development in any of the following?

B. Do you need future professional development in any of the following?

Fill in one circle for each row.

Fill in one circle for each row.

	Yes ①	No ②	Yes ①	No ②
a) Mathematics content	①	②	①	②
b) Mathematics pedagogy/instruction	①	②	①	②
c) Mathematics curriculum	①	②	①	②
d) Integrating technology into mathematics instruction	①	②	①	②
e) Improving students' critical thinking or problem solving skills	①	②	①	②
f) Mathematics assessment	①	②	①	②
g) Addressing individual students' needs	①	②	①	②

24

In the past two years, how many hours in total have you spent in formal in-service/professional development (e.g., workshops, seminars) for mathematics?

Fill in one circle only.

- None --- ①
- Less than 6 hours --- ②
- 6–15 hours --- ③
- 16–35 hours --- ④
- More than 35 hours --- ⑤

Teaching Science to the TIMSS Class

Questions 25 - 26 ask about science instruction for the fourth-grade students in the TIMSS class.

25

A. Is science taught mainly as a separate subject (i.e., not integrated with other subjects) to the students in this class?

Fill in **one** circle only.

Yes --- (1)

No --- (2)

B. Please estimate the time that you spend on science topics with students in this class.

_____ minutes per week

Write in the number of minutes per week.

Please convert the number of hours into minutes.

26

In teaching science to the students in this class, how often do you ask them to do the following?

Fill in only **one** circle for each row.

- | | Every or almost every lesson | About half the lessons | Some lessons | Never |
|--|------------------------------|------------------------|--------------|-------|
| a) Listen to me explain new science content ----- | (1) | (2) | (3) | (4) |
| b) Observe natural phenomena such as the weather or a plant growing and describe what they see ----- | (1) | (2) | (3) | (4) |
| c) Watch me demonstrate an experiment or investigation --- | (1) | (2) | (3) | (4) |
| d) Design or plan experiments or investigations ----- | (1) | (2) | (3) | (4) |
| e) Conduct experiments or investigations ----- | (1) | (2) | (3) | (4) |
| f) Present data from experiments or investigations ----- | (1) | (2) | (3) | (4) |
| g) Interpret data from experiments or investigations ----- | (1) | (2) | (3) | (4) |
| h) Use evidence from experiments or investigations to support conclusions ----- | (1) | (2) | (3) | (4) |
| i) Read their textbooks or other resource materials ----- | (1) | (2) | (3) | (4) |
| j) Have students memorize facts and principles ----- | (1) | (2) | (3) | (4) |
| k) Do field work outside the class | (1) | (2) | (3) | (4) |
| l) Work in mixed ability groups -- | (1) | (2) | (3) | (4) |
| m) Work in same ability groups -- | (1) | (2) | (3) | (4) |

Using Computers for Teaching Science to the TIMSS Class

Question 27 asks about computer use for teaching science to the fourth-grade students in the TIMSS class.

27

A. Do the students in this class have computers (including tablets) available to use during their science lessons?

Fill in **one** circle only.

Yes --- ①

No --- ② 

(If No, go to question 28)

If Yes,

B. What access do the students have to computers?

Fill in only **one** circle for each row.

- | | Yes | No |
|--|-----|----|
| a) Each student has a computer ----- | ① | ② |
| b) The class has computers that students can share ----- | ① | ② |
| c) The school has computers that the class can use sometimes ----- | ① | ② |

C. How often do you do activities on computers during science lessons to support learning for:

Fill in only **one** circle for each row.

- | | Every or almost every day | Once or twice a week | Once or twice a month | Never or almost never |
|--------------------------------------|---------------------------|----------------------|-----------------------|-----------------------|
| a) Whole class ----- | ① | ② | ③ | ④ |
| b) Low-performing students ----- | ① | ② | ③ | ④ |
| c) High-performing students ----- | ① | ② | ③ | ④ |
| d) Students with special needs ----- | ① | ② | ③ | ④ |

Science Topics Taught to the TIMSS Class

Question 28 asks about the topics taught and the content covered in teaching science to the fourth-grade students in the TIMSS class.

28

The following list includes the main topics addressed by the TIMSS science test. Choose the response that best describes when the students in this class have been taught each topic. If a topic was in the curriculum before the **fourth grade**, please choose "Mostly taught before this year." If a topic was taught half this year but not yet completed, please choose "Mostly taught this year." If a topic is not in the curriculum, please choose "Not yet taught or just introduced."

Fill in only **one** circle for each row.

	Mostly taught before this year	Mostly taught this year	Not yet taught or just introduced
A. Life Science			
a) Physical and behavioral characteristics of living things and major groups of living things (e.g., mammals, birds, insects, flowering plants) -----	①	②	③
b) Major body structures and their functions in humans, other animals, and plants -----	①	②	③
c) Life cycles of common plants and animals (e.g., flowering plants, butterflies, frogs) -----	①	②	③
d) Characteristics of plants and animals that are inherited -----	①	②	③
e) Interactions between organisms and their environments (e.g., physical features and behaviors that help living things survive in their environments) -----	①	②	③
f) Relationships in ecosystems (e.g., simple food chains, predator-prey relationships, competition) -----	①	②	③
g) Human health (transmission and prevention of diseases, everyday behaviors that promote good health) -----	①	②	③
B. Physical Science			
a) States of matter (solid, liquid, gas) and their properties (volume, shape) -----	①	②	③
b) Classifying materials based on physical properties (e.g., weight/mass, volume, state of matter, conductivity of heat or electricity) -----	①	②	③
c) Mixtures, including methods for separating a mixture into its components (e.g., sifting, filtering, evaporation, using a magnet) -----	①	②	③
d) Properties of magnets (e.g., like poles repel and opposite poles attract, magnets can attract some objects) -----	①	②	③
e) Physical changes in everyday life (e.g., changes of state, dissolving) -----	①	②	③
f) Chemical changes in everyday life (e.g., decaying, burning, rusting, cooking) -----	①	②	③
g) Common sources of energy (e.g., the Sun, wind, oil) and uses of energy (heating and cooling homes, providing light) -----	①	②	③
h) Light and sound in everyday life (e.g., shadows and reflections, vibrating objects make sound) -----	①	②	③
i) Heat transfer (e.g., energy flows from a hot object to a colder object) -----	①	②	③
j) Electricity and simple electrical circuits (e.g., a circuit must be complete to work correctly) -----	①	②	③
k) Forces that cause objects to move (e.g., gravity, pushing/pulling) or change their motion (e.g., friction) -----	①	②	③
l) Simple machines (e.g., levers, pulleys, wheels, ramps) that help make motion easier -----	①	②	③

28 (continued)

Choose the response that best describes when the students in this class have been taught each topic. If a topic was in the curriculum before the **fourth grade**, please choose “Mostly taught before this year.” If a topic was taught half this year but not yet completed, please choose “Mostly taught this year.” If a topic is not in the curriculum, please choose “Not yet taught or just introduced.”

Fill in only **one** circle for each row.

	Mostly taught before this year	Mostly taught this year	Not yet taught or just introduced
C. Earth Science			
a) Physical makeup of Earth’s surface (e.g., land and water in unequal proportions, sources of fresh and salt water) -----	①	②	③
b) Earth’s resources used in everyday life (e.g., water, wind, soil, forests, oil, natural gas, minerals) -----	①	②	③
c) Changes in Earth’s surface over time (e.g., mountain building, weathering, erosion) -----	①	②	③
d) Fossils and what they can tell us about past conditions on Earth -----	①	②	③
e) Weather and climate (e.g., daily, seasonal, and locational variations versus long term trends)-----	①	②	③
f) Objects in the Solar System (the Sun, the Earth, the Moon, and other planets) and their movements -----	①	②	③
g) Earth’s motion and related patterns observed on Earth (e.g., day and night, seasons)-----	①	②	③


Science Homework for the TIMSS Class

Question 29 asks about science homework for the fourth-grade students in the TIMSS class.

29

A. How often do you usually assign science homework to the students in this class?

Fill in **one** circle only.

- I do not assign science homework --- ①  (Go to question 30)
- Less than once a week --- ②
- 1 or 2 times a week --- ③
- 3 or 4 times a week --- ④
- Every day --- ⑤

B. When you assign science homework to the students in this class, about how many minutes do you usually assign? (Consider the time it would take an average student in your class.)

Fill in **one** circle only.

- 15 minutes or less --- ①
- 16–30 minutes --- ②
- 31–60 minutes --- ③
- More than 60 minutes --- ④

C. How often do you do the following with the science homework assignments for this class?

Fill in only **one** circle for each row.

- | | | | |
|--|-------------------------|-----------|-----------------------|
| | Always or almost always | Sometimes | Never or almost never |
| a) Correct assignments and give feedback to students | ① | ② | ③ |
| b) Discuss the homework in class | ① | ② | ③ |
| c) Monitor whether or not the homework was completed | ① | ② | ③ |

Science Assessment of the TIMSS Class

Questions 30-31 ask about science assessment for the fourth-grade students in the TIMSS class.

30

How much importance do you place on the following assessment strategies in science?

Fill in only **one** circle for each row.

- | | | | |
|---|-------|------|------|
| | A Lot | Some | None |
| a) Observing students as they work | ① | ② | ③ |
| b) Asking students to answer questions during class | ① | ② | ③ |
| c) Short, regular written assessments | ① | ② | ③ |
| d) Longer tests (e.g., unit tests or exams) | ① | ② | ③ |
| e) Long-term projects | ① | ② | ③ |

31

About how often do fourth-grade students in this class take science tests on computers or tablets?

Fill in **one** circle only.

- More than once a month --- ①
- Once a month --- ②
- Twice a year --- ③
- Once a year --- ④
- Never --- ⑤

Professional Development to Teach Science

32

A. In the past two years, have you participated in professional development in any of the following?

Fill in **one** circle for each row.

	Yes	No	Yes	No
a) Science content	①	②	①	②
b) Science pedagogy/instruction	①	②	①	②
c) Science curriculum	①	②	①	②
d) Integrating technology into science instruction	①	②	①	②
e) Improving students' critical thinking or inquiry skills	①	②	①	②
f) Science assessment	①	②	①	②
g) Addressing individual students' needs	①	②	①	②
h) Integrating science with other subjects (e.g., mathematics, technology)	①	②	①	②

33

In the past two years, how many hours in total have you spent in formal in-service/professional development (e.g., workshops, seminars) for science?

Fill in **one** circle only.

- None --- ①
- Less than 6 hours --- ②
- 6–15 hours --- ③
- 16–35 hours --- ④
- More than 35 hours --- ⑤

Thank You

Thank you for the thought, time, and effort you have put into completing this questionnaire.



Grade 4



BOSTON
COLLEGE

timss.bc.edu



© IEA, 2018
International Association
for the Evaluation of
Educational Achievement



TRENDS IN INTERNATIONAL MATHEMATICS AND SCIENCE STUDY

--	--	--	--	--	--	--	--	--	--	--

Student ID

Participation Status

Student Questionnaire

Grade 4

National Center for Education Statistics
U.S. Department of Education
Potomac Center Plaza (PCP), 550 12th St., SW, 4th floor
Washington, DC 20202
USA

The National Center for Education Statistics (NCES), within the U.S. Department of Education, conducts TIMSS in the United States as authorized by the Education Sciences Reform Act of 2002 (ESRA 2002, 20 U.S.C., §9543). All of the information you provide may be used only for statistical purposes and may not be disclosed, or used, in identifiable form for any other purpose except as required by law (20 U.S.C., §9573 and 6 U.S.C. §151).

According to the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless such collection displays a valid OMB control number. The valid OMB control number for this voluntary information collection is 1850-0695. The time required to complete this information collection is estimated to average 30 minutes per student, including the time to review instructions and complete and review the information collection. If you have any comments or concerns regarding the accuracy of the time estimate(s), suggestions for improving the form, or questions about the status of your individual submission of this form, write directly to: Trends in International Mathematics and Science Study (TIMSS), National Center for Education Statistics, Potomac Center Plaza (PCP), 550 12th St., SW, 4th floor, Washington, DC 20202.

OMB No. 1850-0695, Approval Expires 01/31/2021.

© IEA, 2018
200300-001:321 Printed in the USA by Pearson ISD19884

TIMSS & PIRLS
International Study Center
Lynch School of Education
BOSTON COLLEGE

Directions

In this booklet, you will find questions about you and what you think. For each question, you should choose the answer you think is best.

Let us take a few minutes to practice the kinds of questions you will answer in this booklet.

Example 1 is one kind of question you will find in this booklet.

Example 1 ---

Do you go to school?

*Fill in **one** oval only.*

Yes -- ①

No -- ②

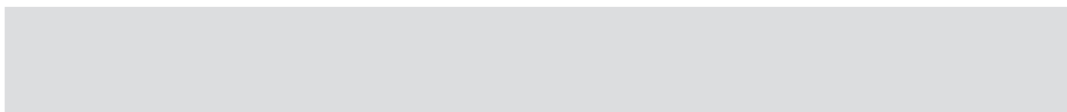
Example 2 is another kind of question you will find in this booklet.

Example 2 ---

How often do you do these things?

*Fill in only **one** oval for each row.*

	Every day or almost every day	Once or twice a week	Once or twice a month	Never or almost never
	↓	↓	↓	↓
a) I talk with my friends	①	②	③	④
b) I play sports	①	②	③	④
c) I ride a skateboard	①	②	③	④



Example 3 is another kind of question you will find in this booklet.

Example 3

What do you think? Tell us how much you agree with these statements.

*Fill in only **one** oval for each row.*

	Agree a lot	Agree a little	Disagree a little	Disagree a lot
	↓	↓	↓	↓
a) Watching movies is fun	①	②	③	④
b) I like eating ice cream	①	②	③	④
c) I do not like waking up early	①	②	③	④
d) I enjoy doing chores	①	②	③	④

- Read each question carefully, and pick the answer you think is best.
- Fill in the oval next to or under your answer.
- If you decide to change your answer, completely erase your first choice. Then, fill in the oval next to or under your new answer.
- Ask for help if you do not understand something or are not sure how to answer.

About You

1

A. Are you a girl or a boy?

*Fill in **one** oval only.*

Girl --

Boy --

B. Are you Hispanic or Latino?

*Fill in **one** oval only.*

Yes, I am Hispanic or Latino --

No, I am not Hispanic or Latino --

C. Which of the following best describes you?

*Fill in ovals for **all** that apply.*

White --

Black or African American --

Asian --

American Indian or Alaska Native --

Native Hawaiian or other
Pacific Islander --

2

When were you born?

Fill in the ovals next to the month and year you were born.

a) Month

b) Year

- | | |
|-----------------|-------------|
| January --- Ⓐ | 2006 --- ① |
| February --- Ⓑ | 2007 --- ② |
| March --- Ⓒ | 2008 --- ③ |
| April --- Ⓓ | 2009 --- ④ |
| May --- Ⓔ | 2010 --- ⑤ |
| June --- Ⓕ | 2011 --- ⑥ |
| July --- Ⓖ | 2012 --- ⑦ |
| August --- Ⓗ | Other --- ⑧ |
| September --- ① | |
| October --- ② | |
| November --- ③ | |
| December --- ④ | |

3

A. How often do you speak English at home?

Fill in one oval only.

I always speak English at home -- ① *If Always, please go to question 4* →

I almost always speak English at home -- ②

I sometimes speak English and sometimes speak another language at home -- ③

I never speak English at home -- ④

If Almost always, Sometimes, Never, please go to question 3B ↘

B. What language do you speak at home (other than English)?

Fill in one oval only.

Spanish -- ①

Other -- ② Please specify _____

4

About how many books are there in your home? (Do not count magazines, newspapers, or your school books.)

*Fill in **one** oval only.*

None or very few (0–10 books) -- ① This shows 10 books



Enough to fill one shelf (11–25 books) -- ② This shows 25 books



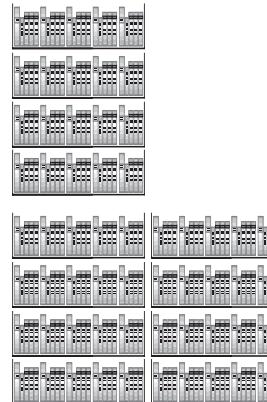
Enough to fill one bookcase (26–100 books) -- ③ This shows 100 books

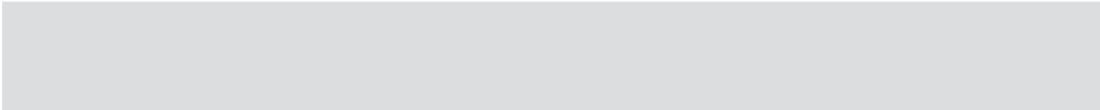


Enough to fill two bookcases (101–200 books) -- ④ This shows 200 books



Enough to fill three or more bookcases (more than 200) -- ⑤ This shows more than 200 books





5

Do you have any of these things at your home?

*Fill in only **one** oval for each row.*

- | | Yes | No |
|--|-----|----|
| | ↓ | ↓ |
| a) A computer or tablet | Ⓐ | Ⓑ |
| b) Study desk/table for your use | Ⓐ | Ⓑ |
| c) Your own room | Ⓐ | Ⓑ |
| d) Internet connection | Ⓐ | Ⓑ |
| e) Your own cell phone | Ⓐ | Ⓑ |
| f) A gaming system (e.g., PlayStation,
Wii, Xbox) | Ⓐ | Ⓑ |
| g) VCR, DVD, or Blu-ray player | Ⓐ | Ⓑ |

The following question is about your Parent/Guardian A and Parent/Guardian B. If you have only one parent/guardian, answer for Parent/Guardian A. If you have two parents/guardians, choose one for Parent/Guardian A and the other for Parent/Guardian B.

6

Were your parents/guardians born in the United States (“United States” includes the 50 states, its territories, the District of Columbia, and U.S. military bases abroad.)

A. Parent/Guardian A

Fill in **one** oval only.

Yes -- ①

No -- ②

I don't know -- ③

Not applicable -- ④

B. Parent/Guardian B

Fill in **one** oval only.

Yes -- ①

No -- ②

I don't know -- ③

Not applicable -- ④

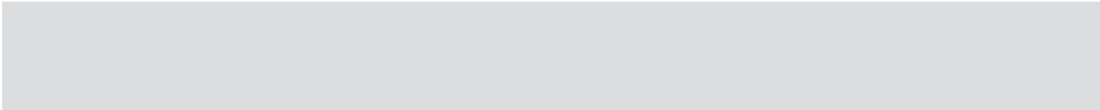
7

Were you born in the United States?

Fill in **one** oval only.

Yes -- ①

No -- ②



8

The following questions ask about activities you do outside of school.

Fill in only **one** oval for each row.

- | | Yes | No |
|---|--------|--------|
| a) Do you play on a sports team outside of school? | ↓
Ⓐ | ↓
Ⓑ |
| b) Do you often play a musical instrument outside of school? | Ⓐ | Ⓑ |
| c) Are you studying something in a class outside of school? | Ⓐ | Ⓑ |
| d) Do you belong to a club outside of school (like Boy/Girl Scouts, 4-H, or Boys and Girls Club)? | Ⓐ | Ⓑ |

9

Are you preparing for or have you participated in a science club, a science fair, or a science competition?

Fill in **one** oval only.

Yes -- Ⓐ

No -- Ⓑ

10

Have you ever repeated a grade in elementary school?

Fill in **one** oval only.

Yes -- Ⓐ

No -- Ⓑ

11

A. About how often are you absent from school?

Fill in **one** oval only.

- Once a week -- ①
- Once every two weeks -- ②
- Once a month -- ③
- Once every two months -- ④
- Never or almost never -- ⑤

B. How many days were you absent from school in the last month?

Fill in **one** oval only.

- None -- ①
- 1 or 2 days -- ②
- 3 or 4 days -- ③
- 5 to 10 days -- ④
- More than 10 days -- ⑤

12

How often do you feel this way when you arrive at school?

Fill in only **one** oval for each row.

- | | Every day | Almost every day | Sometimes | Never |
|------------------------|-----------|------------------|-----------|-------|
| a) I feel tired | ① | ② | ③ | ④ |
| b) I feel hungry | ① | ② | ③ | ④ |

Your School

13

What do you think about your school? Tell how much you agree with these statements.

Fill in only **one** oval for each row.

	Agree a lot	Agree a little	Disagree a little	Disagree a lot
	↓	↓	↓	↓
a) I like being in school	① —	② —	③ —	④
b) I feel safe when I am at school	① —	② —	③ —	④
c) I feel like I belong at this school ...	① —	② —	③ —	④
d) Teachers at my school are fair to me	① —	② —	③ —	④
e) I am proud to go to this school	① —	② —	③ —	④

14

During this school year, how often have other students from your school done any of the following things to you, including through texting or the Internet?

*Fill in only **one** oval for each row.*

	At least once a week	Once or twice a month	A few times a year	Never
a) Made fun of me or called me names	↓ ①	↓ ②	↓ ③	↓ ④
b) Left me out of their games or activities	①	②	③	④
c) Spread lies about me	①	②	③	④
d) Stole something from me	①	②	③	④
e) Damaged something of mine on purpose	①	②	③	④
f) Hit or hurt me (e.g., shoving, hitting, kicking)	①	②	③	④
g) Made me do things I didn't want to do	①	②	③	④
h) Sent me nasty or hurtful messages online	①	②	③	④
i) Shared nasty or hurtful things about me online	①	②	③	④
j) Shared embarrassing photos of me online	①	②	③	④
k) Threatened me	①	②	③	④

Mathematics in School

15

In mathematics lessons, how often do you work problems on your own?

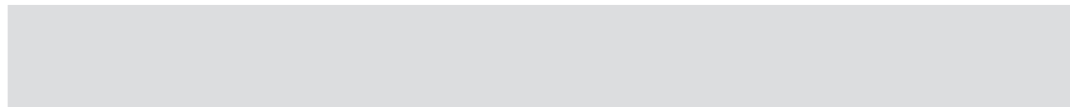
*Fill in **one** oval only.*

Every or almost every lesson-- ①

About half the lessons-- ②

Some lessons-- ③

Never-- ④

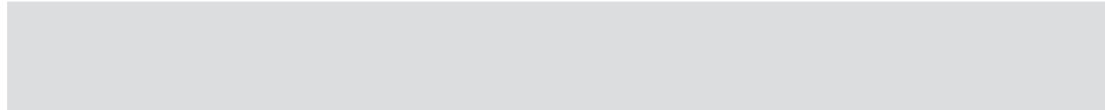


16

How much do you agree with these statements about learning mathematics?

*Fill in only **one** oval for each row.*

	Agree a lot	Agree a little	Disagree a little	Disagree a lot
	↓	↓	↓	↓
a) I enjoy learning mathematics	①	②	③	④
b) I wish I did not have to study mathematics	①	②	③	④
c) Mathematics is boring	①	②	③	④
d) I learn many interesting things in mathematics	①	②	③	④
e) I like mathematics	①	②	③	④
f) I like any schoolwork that involves numbers	①	②	③	④
g) I like to solve mathematics problems	①	②	③	④
h) I look forward to mathematics lessons	①	②	③	④
i) Mathematics is one of my favorite subjects	①	②	③	④

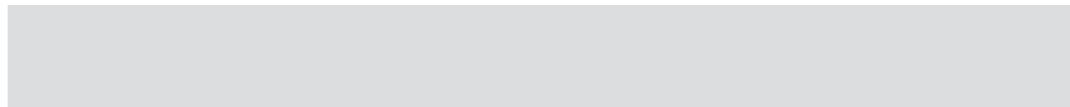


17

How much do you agree with these statements about your mathematics lessons?

Fill in only **one** oval for each row.

	Agree a lot	Agree a little	Disagree a little	Disagree a lot
a) I know what my teacher expects me to do	Ⓐ	Ⓑ	Ⓒ	Ⓓ
b) My teacher is easy to understand ..	Ⓐ	Ⓑ	Ⓒ	Ⓓ
c) My teacher has clear answers to my questions	Ⓐ	Ⓑ	Ⓒ	Ⓓ
d) My teacher is good at explaining mathematics	Ⓐ	Ⓑ	Ⓒ	Ⓓ
e) My teacher does a variety of things to help us learn	Ⓐ	Ⓑ	Ⓒ	Ⓓ
f) My teacher explains a topic again when we don't understand	Ⓐ	Ⓑ	Ⓒ	Ⓓ

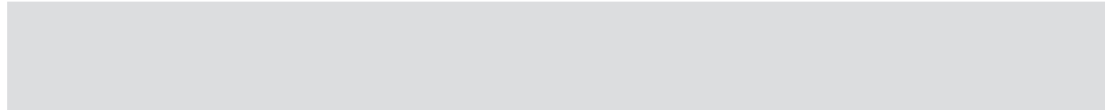


18

How often do these things happen in your mathematics lessons?

Fill in only **one** oval for each row.

	Every or almost every lesson	About half the lessons	Some lessons	Never
a) Students don't listen to what the teacher says	↓ ①	↓ ②	↓ ③	↓ ④
b) There is disruptive noise	①	②	③	④
c) It is too disorderly for students to work well	①	②	③	④
d) My teacher has to wait a long time for students to quiet down	①	②	③	④
e) Students interrupt the teacher	①	②	③	④
f) My teacher has to keep telling us to follow the classroom rules	①	②	③	④



19

How much do you agree with these statements about mathematics?

*Fill in only **one** oval for each row.*

	Agree a lot	Agree a little	Disagree a little	Disagree a lot
	↓	↓	↓	↓
a) I usually do well in mathematics ---	Ⓐ	Ⓑ	Ⓒ	Ⓓ
b) Mathematics is harder for me than for many of my classmates ----	Ⓐ	Ⓑ	Ⓒ	Ⓓ
c) I am just not good at mathematics	Ⓐ	Ⓑ	Ⓒ	Ⓓ
d) I learn things quickly in mathematics	Ⓐ	Ⓑ	Ⓒ	Ⓓ
e) Mathematics makes me nervous ---	Ⓐ	Ⓑ	Ⓒ	Ⓓ
f) I am good at working out difficult mathematics problems	Ⓐ	Ⓑ	Ⓒ	Ⓓ
g) My teacher tells me I am good at mathematics	Ⓐ	Ⓑ	Ⓒ	Ⓓ
h) Mathematics is harder for me than any other subject	Ⓐ	Ⓑ	Ⓒ	Ⓓ
i) Mathematics makes me confused --	Ⓐ	Ⓑ	Ⓒ	Ⓓ

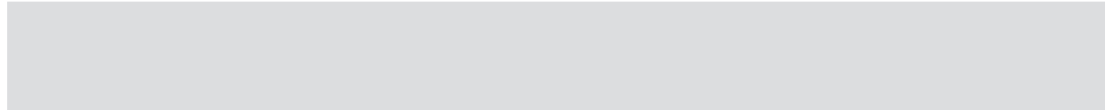
Science in School

20

In science lessons, how often does your teacher ask you to conduct science experiments?

*Fill in **one** oval only.*

- At least once a week -- ①
- Once or twice a month -- ②
- A few times a year -- ③
- Never -- ④

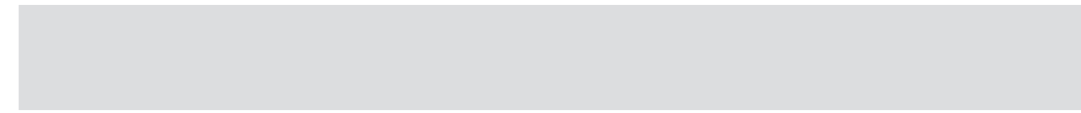


21

How much do you agree with these statements about learning science?

*Fill in only **one** oval for each row.*

	Agree a lot	Agree a little	Disagree a little	Disagree a lot
a) I enjoy learning science	Ⓐ	Ⓑ	Ⓒ	Ⓓ
b) I wish I did not have to study science	Ⓐ	Ⓑ	Ⓒ	Ⓓ
c) Science is boring	Ⓐ	Ⓑ	Ⓒ	Ⓓ
d) I learn many interesting things in science	Ⓐ	Ⓑ	Ⓒ	Ⓓ
e) I like science	Ⓐ	Ⓑ	Ⓒ	Ⓓ
f) I look forward to learning science in school	Ⓐ	Ⓑ	Ⓒ	Ⓓ
g) Science teaches me how things in the world work	Ⓐ	Ⓑ	Ⓒ	Ⓓ
h) I like to do science experiments ----	Ⓐ	Ⓑ	Ⓒ	Ⓓ
i) Science is one of my favorite subjects	Ⓐ	Ⓑ	Ⓒ	Ⓓ

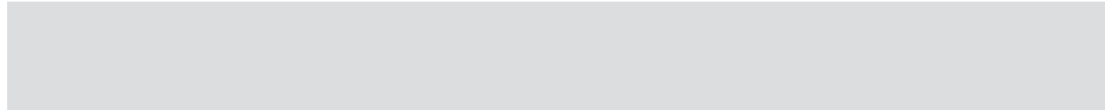


22

How much do you agree with these statements about your science lessons?

*Fill in only **one** oval for each row.*

	Agree a lot	Agree a little	Disagree a little	Disagree a lot
a) I know what my teacher expects me to do	↓ ①	↓ ②	↓ ③	↓ ④
b) My teacher is easy to understand ..	①	②	③	④
c) My teacher has clear answers to my questions	①	②	③	④
d) My teacher is good at explaining science	①	②	③	④
e) My teacher does a variety of things to help us learn	①	②	③	④
f) My teacher explains a topic again when we don't understand	①	②	③	④



23

How much do you agree with these statements about science?

*Fill in only **one** oval for each row.*

	Agree a lot	Agree a little	Disagree a little	Disagree a lot
	↓	↓	↓	↓
a) I usually do well in science	Ⓐ	Ⓑ	Ⓒ	Ⓓ
b) Science is harder for me than for many of my classmates ----	Ⓐ	Ⓑ	Ⓒ	Ⓓ
c) I am just not good at science	Ⓐ	Ⓑ	Ⓒ	Ⓓ
d) I learn things quickly in science	Ⓐ	Ⓑ	Ⓒ	Ⓓ
e) My teacher tells me I am good at science	Ⓐ	Ⓑ	Ⓒ	Ⓓ
f) Science is harder for me than any other subject	Ⓐ	Ⓑ	Ⓒ	Ⓓ
g) Science makes me confused	Ⓐ	Ⓑ	Ⓒ	Ⓓ

24

How hard was this test compared to most other tests you have taken this year in school?

*Fill in **one** oval only.*

Easier than other tests -- ①

About as hard as other tests -- ②

Harder than other tests -- ③

Much harder than other tests -- ④

25

How hard did you try on this test compared to how hard you tried on most other tests you have taken this year in school?

*Fill in **one** oval only.*

Not as hard as on other tests -- ①

About as hard as on other tests -- ②

Harder than on other tests -- ③

Much harder than on other tests -- ④

26

How important was it to you to do well on this test?

*Fill in **one** oval only.*

Not very important -- ①

Somewhat important -- ②

Important -- ③

Very important -- ④



THIS PAGE LEFT BLANK ON PURPOSE

THIS PAGE LEFT BLANK ON PURPOSE

THIS PAGE LEFT BLANK ON PURPOSE

Grade 4

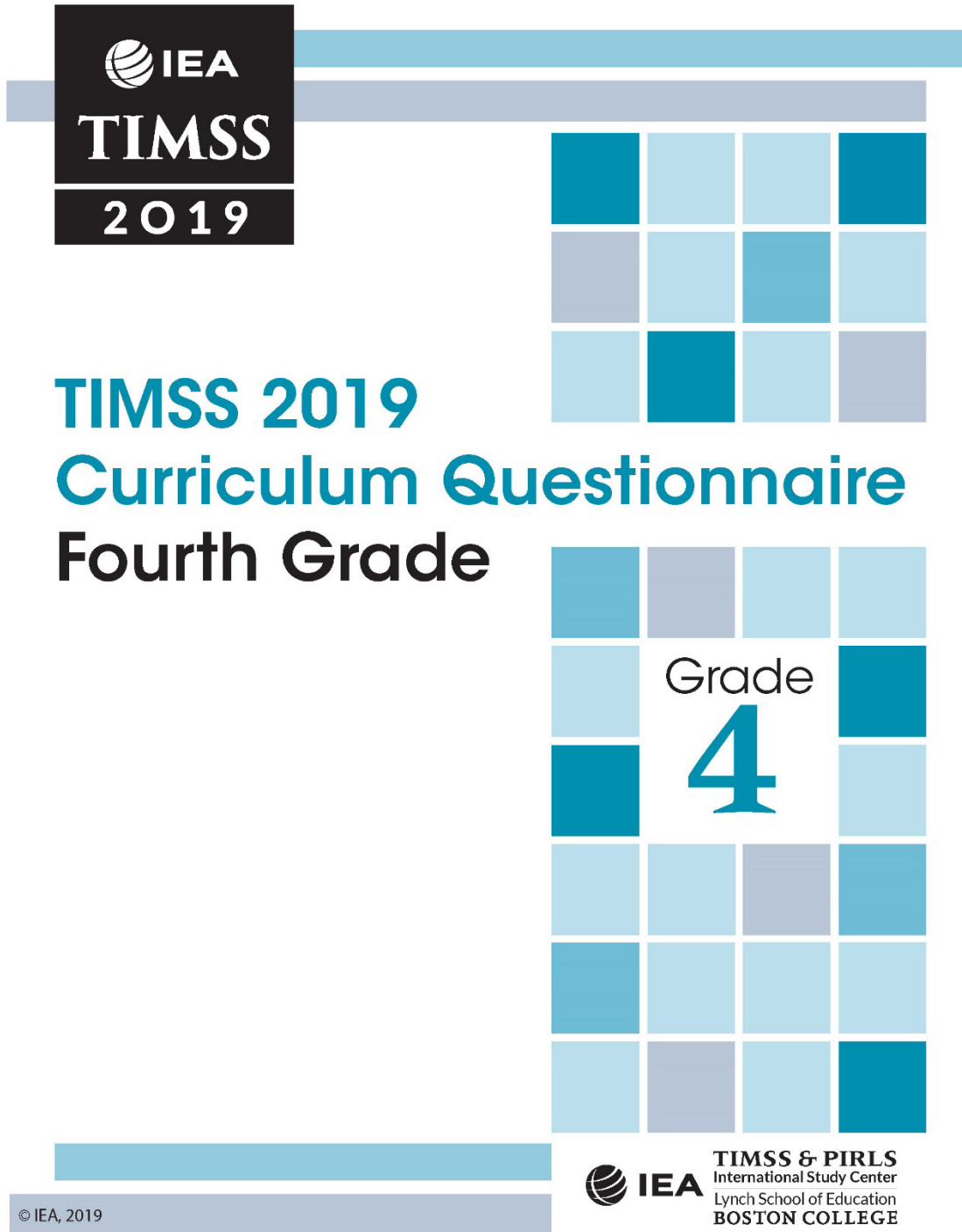


BOSTON
COLLEGE

timss.bc.edu



© IEA, 2018
International Association
for the Evaluation of
Educational Achievement



Source: [TIMSS 2019 Grade 4 Curriculum Questionnaire](#)

TIMSS2019DC_OCQ - English
You are not logged in.

Welcome to the IEA SurveySystem

TIMSS 2019 Curriculum Questionnaire

Please enter your user ID and password (Checksum).

User ID:

Password:

© IEA Online SurveySystem 2019 - Help

Source: [TIMSS 2019 Grade 4 Curriculum Questionnaire](#)

Exhibit D-4. TIMSS 2019 Grade 4 Curriculum Questionnaire—Continued

**IEA
TIMSS
2019**

TIMSS - 2019 - English
You are logged in as: 9998 Logout

TIMSS 2019 Curriculum Questionnaire – Fourth Grade

TIMSS 2019 Curriculum Questionnaire – Fourth Grade

The TIMSS 2019 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 **October 30, 2019**.

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." When you have completed the questionnaire, please make sure to click the "Submit" button to submit your answers.

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 2019 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 Hamburg (TIMSS email account): timss@iea-hamburg.de

[Table of Contents](#)

© IEA Online SurveySystem 2019 - Help

Source: [TIMSS 2019 Grade 4 Curriculum Questionnaire](#)

Exhibit D-4. TIMSS 2019 Grade 4 Curriculum Questionnaire—Continued

IEA
TIMSS
2019

TIMSS - 2019 - English
You are logged in as: 9998 Logout

TIMSS 2019 Curriculum Questionnaire – Fourth 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 8 Curriculum Questionnaire, please skip the General Module using the Table of Contents.

Previous 1/36 [Table of Contents](#) Next

© IEA Online SurveySystem 2019 - Help

Source: [TIMSS 2019 Grade 4 Curriculum Questionnaire](#)

Exhibit D-4. TIMSS 2019 Grade 4 Curriculum Questionnaire—Continued

IEA
TIMSS
2019

TIMSS - 2019 - English
You are logged in as: 9998 [Logout](#)

TIMSS 2019 Curriculum Questionnaire – Fourth 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 2019, in English (e.g., grade 4, grade 8)?

Previous 2/36 [Table of Contents](#) Next

© IEA Online SurveySystem 2019 - [Help](#)

Source: [TIMSS 2019 Grade 4 Curriculum Questionnaire](#)

TIMSS - 2019 - English
You are logged in as: 9998 [Logout](#)

TIMSS 2019 Curriculum Questionnaire – Fourth 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](#) 3/36 [Table of Contents](#) [Next](#)

© IEA Online SurveySystem 2019 - [Help](#)

Source: [TIMSS 2019 Grade 4 Curriculum Questionnaire](#)

Exhibit D-4. TIMSS 2019 Grade 4 Curriculum Questionnaire—Continued

IEA
TIMSS
2019

TIMSS - 2019 - English
You are logged in as: 9998 Logout

TIMSS 2019 Curriculum Questionnaire – Fourth 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 what is the status of implementation?

Previous 4/36 [Table of Contents](#) Next

© IEA Online SurveySystem 2019 - Help

Source: [TIMSS 2019 Grade 4 Curriculum Questionnaire](#)

Exhibit D-4. TIMSS 2019 Grade 4 Curriculum Questionnaire—Continued

TIMSS - 2019 - English
You are logged in as: 9998 Logout

TIMSS 2019 Curriculum Questionnaire – Fourth Grade - Grade Structure and Student Flow

G4. What are the ages (or grades) of compulsory education in your country?
Example: "Ages 6-16 (or Grades 1-9)."

Previous 5/36 [Table of Contents](#) Next

© IEA Online SurveySystem 2019 - Help

Source: [TIMSS 2019 Grade 4 Curriculum Questionnaire](#)

Exhibit D-4. TIMSS 2019 Grade 4 Curriculum Questionnaire—Continued

IEA
TIMSS
2019

TIMSS - 2019 - English
You are logged in as: 9998 Logout

TIMSS 2019 Curriculum Questionnaire – Fourth 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 6/36 [Table of Contents](#) Next

© IEA Online SurveySystem 2019 - Help

Source: [TIMSS 2019 Grade 4 Curriculum Questionnaire](#)

Exhibit D-4. TIMSS 2019 Grade 4 Curriculum Questionnaire—Continued

TIMSS - 2019 - English
You are logged in as: 9998 [Logout](#)

TIMSS 2019 Curriculum Questionnaire – Fourth 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](#) 7/36 [Table of Contents](#) [Next](#)

© IEA Online SurveySystem 2019 - Help

Source: [TIMSS 2019 Grade 4 Curriculum Questionnaire](#)

Exhibit D-4. TIMSS 2019 Grade 4 Curriculum Questionnaire—Continued

IEA
TIMSS
2019

TIMSS - 2019 - English
You are logged in as: 9998 [Logout](#)

TIMSS 2019 Curriculum Questionnaire – Fourth 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 8/36 [Table of Contents](#) Next

© IEA Online SurveySystem 2019 - Help

Source: [TIMSS 2019 Grade 4 Curriculum Questionnaire](#)

TIMSS - 2019 - English
You are logged in as: 9998 [Logout](#)

TIMSS 2019 Curriculum Questionnaire – Fourth Grade - Languages of Instruction

Languages of Instruction


G8. A. State the official language(s) and describe the major language subgroups.

B. Describe the languages of instruction for mathematics and science in the fourth and eighth grades. For example, is the instruction in these grades for these subjects presented to the students in their native language or in a second language?

Previous 9/36 [Table of Contents](#) Next

© IEA Online SurveySystem 2019 - [Help](#)

Source: [TIMSS 2019 Grade 4 Curriculum Questionnaire](#)



TIMSS - 2019 - English
 You are logged in as: 9998 [Logout](#)

TIMSS 2019 Curriculum Questionnaire – Fourth 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 age 3; and
- **Pre-primary education (PPE)** programs including Kindergarten for children age 3 or older.

G9. 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 age 3	<input type="radio"/>	<input type="radio"/>
b) PPE programs for children age 3 or older	<input type="radio"/>	<input type="radio"/>

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:

[Previous](#)
10/36 [Table of Contents](#)
[Next](#)

© IEA Online SurveySystem 2019 - Help (Continued on Next Page)

TIMSS - 2019 - English (Continued)
 You are logged in as: 9998 [Logout](#)

TIMSS 2019 Curriculum Questionnaire – Fourth Grade - Early Childhood Education

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 for each line.*

	Yes	No
a) ECED programs for children under age 3	<input type="radio"/>	<input type="radio"/>
b) PPE programs for children age 3 or older	<input type="radio"/>	<input type="radio"/>

Please describe:

Previous
10/36 [Table of Contents](#)
Next

© IEA Online SurveySystem 2019 - Help

Source: [TIMSS 2019 Grade 4 Curriculum Questionnaire](#)

Exhibit D-4. TIMSS 2019 Grade 4 Curriculum Questionnaire—Continued

IEA
TIMSS
2019

TIMSS - 2019 - English
You are logged in as: 9998 [Logout](#)

TIMSS 2019 Curriculum Questionnaire – Fourth Grade - Early Childhood Education

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

G10. A. Does your country have national curriculum guidance documents for ECED or PPE programs?

Check **one** circle for each line.

	Yes	No
a) ECED programs for children under age 3	<input type="radio"/>	<input type="radio"/>
b) PPE programs for children age 3 or older	<input type="radio"/>	<input type="radio"/>

[Previous](#) 11/36 [Table of Contents](#) [Next](#)

© IEA Online SurveySystem 2019 - Help (Continued on Next Page)

Source: [TIMSS 2019 Grade 4 Curriculum Questionnaire](#)

TIMSS - 2019 - English (Continued)
 You are logged in as: 9998 [Logout](#)

TIMSS 2019 Curriculum Questionnaire – Fourth Grade - Early Childhood Education

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	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b) Physical development and health education	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c) Oral language development and communication skills	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
d) Reading and literacy skills	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
e) Mathematics and numeracy skills	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
f) Science including understanding the natural world (e.g., weather)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
g) Other Please specify below:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Comments:

[Previous](#) 11/36 [Table of Contents](#) [Next](#)

© IEA Online SurveySystem 2019 - Help

Source: [TIMSS 2019 Grade 4 Curriculum Questionnaire](#)

IEA
TIMSS
2019

TIMSS - 2019 - English
You are logged in as: 9998 Logout

TIMSS 2019 Curriculum Questionnaire – Fourth Grade - Examinations

Examinations

G11. 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 12/36 [Table of Contents](#) Next

© IEA Online SurveySystem 2019 - Help

TIMSS - 2019 - English
You are logged in as: 9998 [Logout](#)

TIMSS 2019 Curriculum Questionnaire – Fourth 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."

Previous 13/36 [Table of Contents](#) Next

© IEA Online SurveySystem 2019 - [Help](#) (Continued on Next Page)

Source: [TIMSS 2019 Grade 4 Curriculum Questionnaire](#)

Exhibit D-4. TIMSS 2019 Grade 4 Curriculum Questionnaire—Continued



(Continued)

TIMSS - 2019 - English
 You are logged in as: 9998 [Logout](#)

TIMSS 2019 Curriculum Questionnaire – Fourth Grade - Teacher Preparation

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.	<input type="radio"/>	<input type="radio"/>
If Yes... How long is this period?		<input style="width: 100%;" type="text"/>
b) Passing a qualifying examination (e.g., licensing, certification).	<input type="radio"/>	<input type="radio"/>
c) Completion of a probationary teaching period.	<input type="radio"/>	<input type="radio"/>
If Yes... How long is this period?		<input style="width: 100%;" type="text"/>
d) Completion of a mentoring or induction program (e.g., experienced teachers work with novice teachers to provide instructional guidance).	<input type="radio"/>	<input type="radio"/>
e) Other Please specify below:	<input type="radio"/>	<input type="radio"/>

[Previous](#)
13/36 [Table of Contents](#)
[Next](#)

© IEA Online SurveySystem 2019 - Help (Continued on Next Page)

Source: [TIMSS 2019 Grade 4 Curriculum Questionnaire](#)

TIMSS - 2019 - English (Continued)
You are logged in as: 9998 Logout

TIMSS 2019 Curriculum Questionnaire – Fourth Grade - Teacher Preparation

C. Are there additional requirements for teachers of mathematics and science in the fourth grade?

Check *one* circle only.

Yes
 No

If Yes....
D. What are they?

E. In the last 10 years, has there been a change in the stated official policy about the requirements for being a teacher of students in the fourth grade?

Check *one* circle only.

Yes
 No

If Yes....
F. How did the policy change, and what is the status of implementation?

Example: "A master's degree will be required in 2020; an oral examination has been required since 2018."

Previous 13/36 [Table of Contents](#) Next

© IEA Online SurveySystem 2019 - Help

Source: [TIMSS 2019 Grade 4 Curriculum Questionnaire](#)

Exhibit D-4. TIMSS 2019 Grade 4 Curriculum Questionnaire—Continued

IEA
TIMSS
2019

TIMSS - 2019 - English
You are logged in as: 9998 [Logout](#)

TIMSS 2019 Curriculum Questionnaire – Fourth 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?

Previous 14/36 [Table of Contents](#) Next

© IEA Online SurveySystem 2019 - [Help](#) (Continued on Next Page)

Source: [TIMSS 2019 Grade 4 Curriculum Questionnaire](#)

(Continued)

TIMSS - 2019 - English
 You are logged in as: 9998 [Logout](#)

TIMSS 2019 Curriculum Questionnaire – Fourth Grade - Teacher Preparation

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.	<input type="radio"/>	<input type="radio"/>
If Yes... How long is this period? <input style="width: 150px;" type="text"/>		
b) Passing a qualifying examination (e.g., licensing, certification).	<input type="radio"/>	<input type="radio"/>
c) Completion of a probationary teaching period.	<input type="radio"/>	<input type="radio"/>
If Yes... How long is this period? <input style="width: 150px;" type="text"/>		
d) Completion of a mentoring or induction program (e.g., experienced teachers work with novice teachers to provide instructional guidance).	<input type="radio"/>	<input type="radio"/>
e) Other Please specify below:	<input type="radio"/>	<input type="radio"/>

D. If there are additional requirements for teachers of mathematics and science in the eighth grade that are different than in the fourth grade, what are they?

[Previous](#)
14/36 [Table of Contents](#)
[Next](#)

© IEA Online SurveySystem 2019 - Help (Continued on Next Page)

Source: [TIMSS 2019 Grade 4 Curriculum Questionnaire](#)

Exhibit D-4. TIMSS 2019 Grade 4 Curriculum Questionnaire—Continued

IEA
TIMSS
2019

TIMSS - 2019 - English
You are logged in as: 9998 Logout

(Continued)

TIMSS 2019 Curriculum Questionnaire – Fourth Grade - Teacher Preparation

E. In the last 10 years, has there been a change in the stated official policy about the requirements for being a teacher of students in the eighth grade?

Check one circle only.

Yes

No

If Yes....

F. How did the policy change, and what is the status of implementation?

Previous 14/36 [Table of Contents](#) Next

© IEA Online SurveySystem 2019 - Help

Source: [TIMSS 2019 Grade 4 Curriculum Questionnaire](#)

TIMSS - 2019 - English
 You are logged in as: 9998 [Logout](#)

TIMSS 2019 Curriculum Questionnaire – Fourth 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	<input type="radio"/>	<input type="radio"/>
b) Completion of a specialized school leadership training program (including a school leadership degree program)	<input type="radio"/>	<input type="radio"/>
c) Other Please specify below:	<input type="radio"/>	<input type="radio"/>

© IEA Online SurveySystem 2019 - Help (Continued on Next Page)

Source: [TIMSS 2019 Grade 4 Curriculum Questionnaire](#)

Exhibit D-4. TIMSS 2019 Grade 4 Curriculum Questionnaire—Continued

IEA
TIMSS
2019

TIMSS - 2019 - English
You are logged in as: 9998 Logout

(Continued)

TIMSS 2019 Curriculum Questionnaire – Fourth Grade - Principal Preparation

C. In the last 10 years, has there been a change in the stated official policy about the requirements for being a principal of a school with fourth grade students?

Check **one** circle only.

Yes
 No

If Yes....
D. How did the policy change, and what is the status of implementation?

Previous 15/36 [Table of Contents](#) Next

© IEA Online SurveySystem 2019 - Help

Source: [TIMSS 2019 Grade 4 Curriculum Questionnaire](#)

TIMSS - 2019 - English
 You are logged in as: 9998 [Logout](#)

TIMSS 2019 Curriculum Questionnaire – Fourth 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	<input type="radio"/>	<input type="radio"/>
b) Completion of a specialized school leadership training program (including a school leadership degree program)	<input type="radio"/>	<input type="radio"/>
c) Other Please specify below:	<input type="radio"/>	<input type="radio"/>

[Previous](#) 16/36 [Table of Contents](#) [Next](#)

© IEA Online SurveySystem 2019 - Help (Continued on Next Page)

Source: [TIMSS 2019 Grade 4 Curriculum Questionnaire](#)

Exhibit D-4. TIMSS 2019 Grade 4 Curriculum Questionnaire—Continued

IEA
TIMSS
2019

TIMSS - 2019 - English (Continued)
You are logged in as: 9998 Logout

TIMSS 2019 Curriculum Questionnaire – Fourth Grade - Principal Preparation

D. In the last 10 years, has there been a change in the stated official policy about the requirements for being a principal of a school with eight grade students?

Check one circle only.

Yes
 No

If Yes....
E. How did the policy change, and what is the status of implementation?

[Empty text box for response]

Previous 16/36 [Table of Contents](#) Next

© IEA Online SurveySystem 2019 - Help

Source: [TIMSS 2019 Grade 4 Curriculum Questionnaire](#)

Exhibit D-4. TIMSS 2019 Grade 4 Curriculum Questionnaire—Continued

The screenshot shows the TIMSS 2019 online survey system interface. At the top right, there is a logo for IEA TIMSS 2019. The main content area is titled "TIMSS - 2019 - English" and indicates the user is logged in as "9998" with a "Logout" link. Below this, the page is identified as "TIMSS 2019 Curriculum Questionnaire – Fourth Grade - MATHEMATICS MODULE - GRADE 4". A central box contains the heading "MATHEMATICS MODULE - GRADE 4" and a sub-heading "To be completed by all countries participating in TIMSS at the fourth grade". A paragraph explains that the module refers to the national curriculum in effect for fourth-grade students in 2019, or a summary of state/provincial curricula if no national curriculum exists. At the bottom of the interface, there are "Previous" and "Next" buttons, a page number "17/36", and a "Table of Contents" link. A copyright notice "© IEA Online SurveySystem 2019 - Help" is located at the bottom left of the page.

Source: [TIMSS 2019 Grade 4 Curriculum Questionnaire](#)

IEA
TIMSS
2019

TIMSS - 2019 - English
You are logged in as: 9998 Logout

TIMSS 2019 Curriculum Questionnaire – Fourth Grade - About the Fourth Grade Mathematics Curriculum

About the Fourth Grade Mathematics Curriculum

This mathematics module refers to the national curriculum that was in effect for the fourth grade students assessed in TIMSS 2019—the curriculum that covers mathematics instruction at the fourth grade of primary/elementary school 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 fourth grade of primary/elementary school?

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 fourth grade of primary/elementary school?

Previous 18/36 [Table of Contents](#) Next

© IEA Online SurveySystem 2019 - Help

Exhibit D-4. TIMSS 2019 Grade 4 Curriculum Questionnaire—Continued

TIMSS - 2019 - English
You are logged in as: 9998 Logout

TIMSS 2019 Curriculum Questionnaire – Fourth Grade - About the Fourth Grade Mathematics Curriculum

M2. A. In what year was the 2018/2019 mathematics curriculum introduced?

Comments (e.g., status of implementation):

Previous 19/36 [Table of Contents](#) Next

© IEA Online SurveySystem 2019 - Help (Continued on Next Page)

Source: [TIMSS 2019 Grade 4 Curriculum Questionnaire](#)

Exhibit D-4. TIMSS 2019 Grade 4 Curriculum Questionnaire—Continued

IEA
TIMSS
2019

(Continued)

TIMSS - 2019 - English
You are logged in as: 9998 Logout

TIMSS 2019 Curriculum Questionnaire – Fourth Grade - About the Fourth Grade Mathematics Curriculum

B. Is the mathematics curriculum currently being revised?

Check *one* circle only.

Yes
 No

If Yes...
Please explain:

If No...
Comments:

Previous 19/36 [Table of Contents](#) Next

© IEA Online SurveySystem 2019 - Help

Source: [TIMSS 2019 Grade 4 Curriculum Questionnaire](#)

TIMSS - 2019 - English
You are logged in as: 9998 Logout

TIMSS 2019 Curriculum Questionnaire – Fourth Grade - Curriculum Specifications

Curriculum Specifications

This mathematics module refers to the national curriculum that was in effect for the fourth grade students assessed in TIMSS 2019—the curriculum that covers mathematics instruction at the fourth grade of primary/elementary school for the majority of students. If you do not have a national curriculum, please summarize for your state or provincial curricula.

M3. Does the curriculum or any other official document prescribe the percentage of total instructional time to be devoted to mathematics instruction at the fourth grade of primary/elementary school?

Check **one** circle only:

Yes
 No


If Yes...
Please specify the percentage:

Comments:

Previous 20/36 [Table of Contents](#) Next

© IEA Online SurveySystem 2019 - Help

Source: [TIMSS 2019 Grade 4 Curriculum Questionnaire](#)



TIMSS - 2019 - English
 You are logged in as: 9998 [Logout](#)

TIMSS 2019 Curriculum Questionnaire – Fourth Grade - Curriculum Specifications

M4. How is the mathematics curriculum implementation evaluated?

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

	Yes	No
a) Visits by inspectors	<input type="radio"/>	<input type="radio"/>
b) Research programs	<input type="radio"/>	<input type="radio"/>
c) School self-evaluation	<input type="radio"/>	<input type="radio"/>
d) National or regional examinations	<input type="radio"/>	<input type="radio"/>
e) Other	<input type="radio"/>	<input type="radio"/>

Please specify below:

Comments:

[Previous](#)
21/36 [Table of Contents](#)
[Next](#)

© IEA Online SurveySystem 2019 - Help

Source: [TIMSS 2019 Grade 4 Curriculum Questionnaire](#)

TIMSS - 2019 - English
You are logged in as: 9998 Logout

TIMSS 2019 Curriculum Questionnaire – Fourth Grade - Use of Digital Devices

Use of Digital Devices

This mathematics module refers to the national curriculum that was in effect for the fourth grade students assessed in TIMSS 2019—the curriculum that covers mathematics instruction at the fourth grade of primary/elementary school for the majority of students. If you do not have a national curriculum, please summarize for your state or provincial curricula.

M5. A. Does the national curriculum contain statements/policies about the use of digital devices (e.g., computers, tablets, calculators) in grade 4 mathematics instruction?

Check one circle only.

Yes
 No

If Yes...
What are the statements/policies?

Previous 22/36 [Table of Contents](#) Next

© IEA Online SurveySystem 2019 - Help (Continued on Next Page)

Source: [TIMSS 2019 Grade 4 Curriculum Questionnaire](#)

Exhibit D-4. TIMSS 2019 Grade 4 Curriculum Questionnaire—Continued

IEA
TIMSS
2019

TIMSS - 2019 - English
You are logged in as: 9998 Logout

(Continued)

TIMSS 2019 Curriculum Questionnaire – Fourth Grade - Use of Digital Devices

B. Does the national curriculum contain statements/policies about student use of digital devices (e.g., computers, tablets, calculators) in grade 4 mathematics tests or examinations?

Check one circle only.

Yes
 No

If Yes...
What are the statements/policies?

Comments:

Previous 22/36 [Table of Contents](#) Next

© IEA Online SurveySystem 2019 - Help

Source: [TIMSS 2019 Grade 4 Curriculum Questionnaire](#)

Exhibit D-4. TIMSS 2019 Grade 4 Curriculum Questionnaire—Continued

The screenshot shows a web-based questionnaire interface. At the top right, there is a logo for IEA TIMSS 2019. Below this, the text reads "TIMSS - 2019 - English" and "You are logged in as: 9998 Logout". The main title of the questionnaire is "TIMSS 2019 Curriculum Questionnaire – Fourth Grade - Specialist Mathematics Teachers". The central part of the interface is a large text box with a grey header that says "Specialist Mathematics Teachers". Below the header, the question is: "M6. At what grade(s) are students first taught by mathematics subject specialists rather than general classroom teachers?". The text box is empty, indicating that the user has not yet provided an answer. At the bottom of the interface, there are three buttons: "Previous", "23/36 Table of Contents", and "Next". At the very bottom, there is a copyright notice: "© IEA Online SurveySystem 2019 - Help".

Source: [TIMSS 2019 Grade 4 Curriculum Questionnaire](#)



TIMSS - 2019 - English
 You are logged in as: 9998 [Logout](#)

TIMSS 2019 Curriculum Questionnaire – Fourth Grade - Fourth Grade Mathematics Topics Covered

Fourth Grade Mathematics Topics Covered

This mathematics module refers to the national curriculum that was in effect for the fourth grade students assessed in TIMSS 2019—the curriculum that covers mathematics instruction at the fourth grade of primary/elementary school for the majority of students. If you do not have a national curriculum, please summarize for your state or provincial curricula.

M7. (i) According to the national mathematics curriculum, what proportion of grade 4 students should have been taught each of the following topics or skills by the end of grade 4?

Be sure to include curriculum expectations for all grades up to and including grade 4. Grades represent years of formal schooling. For example, if "Year 5" in your country corresponds to the fourth year of formal schooling, please choose grade 4.

(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., odd and even numbers in part A topic (c)], please explain in the comment field.

	(i) Proportion of grade 4 students expected to be taught topic			(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 4	PP	G1	G2	G3	G4	G5	G6	G7	G8	G9	G10	G11	G12
A. Number																
a) Concepts of whole numbers, including place value and ordering	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Adding, subtracting, multiplying, and dividing with whole numbers	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Concepts of multiples and factors; odd and even numbers	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Number sentences (finding the missing number, representing problem situations with number sentences)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) Number patterns (extending number patterns and finding missing terms)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f) Concepts of fractions, including representing, comparing and ordering, adding and subtracting simple fractions	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g) Concepts of decimals, including place value and ordering, adding and subtracting with decimals	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

[Previous](#) 24/36 [Table of Contents](#) [Next](#)

© IEA Online SurveySystem 2019 - [Help](#) (Continued on Next Page)

Source: [TIMSS 2019 Grade 4 Curriculum Questionnaire](#)

Exhibit D-4. TIMSS 2019 Grade 4 Curriculum Questionnaire—Continued

IEA
TIMSS
2019

TIMSS - 2019 - English (Continued)
You are logged in as: 9998 Logout

TIMSS 2019 Curriculum Questionnaire – Fourth Grade - Fourth Grade Mathematics Topics Covered

Comments:

Previous 24/36 [Table of Contents](#) Next

© IEA Online SurveySystem 2019 - Help

Source: [TIMSS 2019 Grade 4 Curriculum Questionnaire](#)



TIMSS - 2019 - English
 You are logged in as: 9998 [Logout](#)

TIMSS 2019 Curriculum Questionnaire – Fourth Grade - Fourth Grade Mathematics Topics Covered

M7. (continued)
(i) According to the national mathematics curriculum, what proportion of grade 4 students should have been taught each of the following topics or skills by the end of grade 4?

Be sure to include curriculum expectations for all grades up to and including grade 4. Grades represent years of formal schooling. For example, if “Year 5” in your country corresponds to the fourth year of formal schooling, please choose grade 4.

(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., odd and even numbers in part A topic (c)], please explain in the comment field.

	(i) Proportion of grade 4 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.												
	All or almost all students	Only the more able students	Not included in the curriculum through grade 4	PP	G1	G2	G3	G4	G5	G6	G7	G8	G9	G10	G11	G12
B. Measurement and Geometry																
a) Solving problems involving length, including measuring and estimating	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Solving problems involving mass, volume, and time	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Finding and estimating perimeter, area, and volume	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Parallel and perpendicular lines	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) Comparing and drawing angles	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f) Elementary properties of common geometric shapes	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g) Three-dimensional shapes, including relationships with their two-dimensional representations	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Comments:

[Previous](#)
25/36
[Table of Contents](#)
[Next](#)

© IEA Online SurveySystem 2019 - Help

TIMSS - 2019 - English
 You are logged in as: 9998 [Logout](#)

TIMSS 2019 Curriculum Questionnaire – Fourth Grade - Fourth Grade Mathematics Topics Covered

M7. (continued)
(i) According to the national mathematics curriculum, what proportion of grade 4 students should have been taught each of the following topics or skills by the end of grade 4?

Be sure to include curriculum expectations for all grades up to and including grade 4. Grades represent years of formal schooling. For example, if "Year 5" in your country corresponds to the fourth year of formal schooling, please choose grade 4.

(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., odd and even numbers in part A topic (c)], please explain in the comment field.

	(i) Proportion of grade 4 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.												
	All or almost all students	Only the more able students	Not included in the curriculum through grade 4	PP	G1	G2	G3	G4	G5	G6	G7	G8	G9	G10	G11	G12
C. Data																
a) Reading and interpreting data from tables, pictographs, bar graphs, line graphs, and pie charts	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Organizing and representing data to help answer questions	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Drawing conclusions from data displays	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Comments:

Previous 26/36 [Table of Contents](#) Next

© IEA Online SurveySystem 2019 - Help

Source: [TIMSS 2019 Grade 4 Curriculum Questionnaire](#)

Exhibit D-4. TIMSS 2019 Grade 4 Curriculum Questionnaire—Continued

IEA
TIMSS
2019

TIMSS - 2019 - English
You are logged in as: 9998 [Logout](#)

TIMSS 2019 Curriculum Questionnaire – Fourth Grade - SCIENCE MODULE - GRADE 4

SCIENCE MODULE - GRADE 4

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

This science module refers to the national curriculum that was in effect for the fourth grade students assessed in TIMSS 2019—the curriculum that covers science instruction at the fourth grade of primary/elementary school for the majority of students. If you do not have a national curriculum, please summarize for your state or provincial curricula.

[Previous](#) 27/36 [Table of Contents](#) [Next](#)

© IEA Online SurveySystem 2019 - Help

Source: [TIMSS 2019 Grade 4 Curriculum Questionnaire](#)

TIMSS - 2019 - English
You are logged in as: 9998 [Logout](#)

TIMSS 2019 Curriculum Questionnaire – Fourth Grade - About the Fourth Grade Science Curriculum

About the Fourth Grade Science Curriculum

This science module refers to the national curriculum that was in effect for the fourth grade students assessed in TIMSS 2019—the curriculum that covers science instruction at the fourth grade of primary/elementary school 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 fourth grade of primary/elementary school?

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 fourth grade of primary/elementary school?

[Previous](#)

28/36 [Table of Contents](#)

[Next](#)

© IEA Online SurveySystem 2019 - Help

Source: [TIMSS 2019 Grade 4 Curriculum Questionnaire](#)

Exhibit D-4. TIMSS 2019 Grade 4 Curriculum Questionnaire—Continued

IEA
TIMSS
2019

TIMSS - 2019 - English
You are logged in as: 9998 [Logout](#)

TIMSS 2019 Curriculum Questionnaire – Fourth Grade - About the Fourth Grade Science Curriculum

S2. A. In what year was the 2018/2019 science curriculum introduced?

Comments (e.g., status of implementation):

[Previous](#) 29/36 [Table of Contents](#) [Next](#)

© IEA Online SurveySystem 2019 - [Help](#) (Continued on Next Page)

Source: [TIMSS 2019 Grade 4 Curriculum Questionnaire](#)

Exhibit D-4. TIMSS 2019 Grade 4 Curriculum Questionnaire—Continued

TIMSS - 2019 - English (Continued)
You are logged in as: 9998 Logout

TIMSS 2019 Curriculum Questionnaire – Fourth Grade - About the Fourth Grade Science Curriculum

B. Is the science curriculum currently being revised?

Check one circle only.

Yes
 No

If Yes...
Please explain:

If No...
Comments:

Previous 29/36 [Table of Contents](#) Next

© IEA Online SurveySystem 2019 - Help

Source: [TIMSS 2019 Grade 4 Curriculum Questionnaire](#)

IEA
TIMSS
2019

TIMSS - 2019 - English
You are logged in as: 9998 [Logout](#)

TIMSS 2019 Curriculum Questionnaire - Fourth Grade - Curriculum Specifications

Curriculum Specifications

This science module refers to the national curriculum that was in effect for the fourth grade students assessed in TIMSS 2019—the curriculum that covers science instruction at the fourth grade of primary/elementary school for the majority of students. If you do not have a national curriculum, please summarize for your state or provincial curricula.

S3. Does the curriculum or any other official document prescribe the percentage of total instructional time to be devoted to science instruction at the fourth grade of primary/elementary school?

Check one circle only:

Yes
 No

If Yes...
Please specify the percentage:

Comments:

[Previous](#) 30/36 [Table of Contents](#) [Next](#)

© IEA Online SurveySystem 2019 - Help

TIMSS - 2019 - English
 You are logged in as: 9998 [Logout](#)

TIMSS 2019 Curriculum Questionnaire – Fourth Grade - Curriculum Specifications

S4. How is the science curriculum implementation evaluated?

Check one circle for each line.

	Yes	No
a) Visits by inspectors	<input type="radio"/>	<input type="radio"/>
b) Research programs	<input type="radio"/>	<input type="radio"/>
c) School self-evaluation	<input type="radio"/>	<input type="radio"/>
d) National or regional examinations	<input type="radio"/>	<input type="radio"/>
e) Other Please specify below:	<input type="radio"/>	<input type="radio"/>

Comments:

[Previous](#)
31/36 [Table of Contents](#)
[Next](#)

© IEA Online SurveySystem 2019 - Help

Source: [TIMSS 2019 Grade 4 Curriculum Questionnaire](#)

Exhibit D-4. TIMSS 2019 Grade 4 Curriculum Questionnaire—Continued

IEA
TIMSS
2019

TIMSS - 2019 - English
You are logged in as: 9998 [Logout](#)

TIMSS 2019 Curriculum Questionnaire – Fourth Grade - Use of Digital Devices

Use of Digital Devices

This science module refers to the national curriculum that was in effect for the fourth grade students assessed in TIMSS 2019—the curriculum that covers science instruction at the fourth grade of primary/elementary school for the majority of students. If you do not have a national curriculum, please summarize for your state or provincial curricula.

S5. Does the national curriculum contain statements/policies about the use of digital devices (e.g., computers, tablets, calculators) in grade 4 science instruction?

Check one circle only.

Yes
 No

If Yes...
What are the statements/policies?

Previous 32/36 [Table of Contents](#) Next

© IEA Online SurveySystem 2019 - Help

Source: [TIMSS 2019 Grade 4 Curriculum Questionnaire](#)

Exhibit D-4. TIMSS 2019 Grade 4 Curriculum Questionnaire—Continued

The screenshot shows the TIMSS 2019 online survey interface. At the top right, there is a logo for IEA TIMSS 2019. Below this, the text reads "TIMSS - 2019 - English" and "You are logged in as: 9998 Logout". The main title of the questionnaire is "TIMSS 2019 Curriculum Questionnaire – Fourth Grade - Specialist Science Teachers". The question is titled "Specialist Science Teachers" and asks: "S6. At what grade(s) are students first taught by science subject specialists rather than general classroom teachers?". Below the question is a large empty text box for the answer. At the bottom of the question area, there are three buttons: "Previous", "33/36 Table of Contents", and "Next". At the very bottom of the page, there is a copyright notice: "© IEA Online SurveySystem 2019 - Help".

Source: [TIMSS 2019 Grade 4 Curriculum Questionnaire](#)



TIMSS - 2019 - English
 You are logged in as: 9998 [Logout](#)

TIMSS 2019 Curriculum Questionnaire – Fourth Grade - Fourth Grade Science Topics Covered

Fourth Grade Science Topics Covered

This science module refers to the national curriculum that was in effect for the fourth grade students assessed in TIMSS 2019—the curriculum that covers science instruction at the fourth grade of primary/elementary school for the majority of students. If you do not have a national curriculum, please summarize for your state or provincial curricula.

S7. (i) According to the national science curriculum, what proportion of grade 4 students should have been taught each of the following topics or skills by the end of grade 4?

Be sure to include curriculum expectations for all grades up to and including grade 4. Grades represent years of formal schooling. For example, if "Year 5" in your country corresponds to the fourth year of formal schooling, please choose grade 4.

(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., birds in part A topic (a)], please explain in the comment field.

	(i) Proportion of grade 4 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												
	All or almost all students	Only the more able students	Not included in the curriculum through grade 4	PP	G1	G2	G3	G4	G5	G6	G7	G8	G9	G10	G11	G12
A. Life Science																
a) Physical and behavioral characteristics of living things and major groups of living things (e.g., mammals, birds, insects, flowering plants)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Major body structures and their functions in humans, other animals, and plants	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Life cycles of common plants and animals (e.g., flowering plants, butterflies, frogs)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Characteristics of plants and animals that are inherited	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) Interactions between organisms and their environments (e.g., physical features and behaviors that help living things survive in their environments)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f) Relationships in ecosystems (e.g., simple food chains, predator-prey relationships, competition)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g) Human health (transmission and prevention of diseases, everyday behaviors that promote good health)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

[Previous](#)
34/36 [Table of Contents](#)
[Next](#)

© IEA Online SurveySystem 2019 - Help (Continued on Next Page)

Source: [TIMSS 2019 Grade 4 Curriculum Questionnaire](#)

Exhibit D-4. TIMSS 2019 Grade 4 Curriculum Questionnaire—Continued

IEA
TIMSS
2019

TIMSS - 2019 - English (Continued)
You are logged in as: 9998 Logout

TIMSS 2019 Curriculum Questionnaire – Fourth Grade - Fourth Grade Science Topics Covered

Comments:

Previous 34/36 Table of Contents Next

© IEA Online SurveySystem 2019 - Help

Source: [TIMSS 2019 Grade 4 Curriculum Questionnaire](#)

Exhibit D-4. TIMSS 2019 Grade 4 Curriculum Questionnaire—Continued



TIMSS - 2019 - English
 You are logged in as: 9998 [Logout](#)

TIMSS 2019 Curriculum Questionnaire – Fourth Grade - Fourth Grade Science Topics Covered

S7. (continued)
(i) According to the national science curriculum, what proportion of grade 4 students should have been taught each of the following topics or skills by the end of grade 4?

Be sure to include curriculum expectations for all grades up to and including grade 4. Grades represent years of formal schooling. For example, if "Year 5" in your country corresponds to the fourth year of formal schooling, please choose grade 4.

(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., birds in part A topic (a)], please explain in the comment field.

	(i) Proportion of grade 4 students expected to be taught topic			(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 4	PP	G1	G2	G3	G4	G5	G6	G7	G8	G9	G10	G11	G12
<i>Check one circle for each line.</i>																
<i>Check the corresponding grade(s) for each topic</i>																
B. Physical Science																
a) States of matter (solid, liquid, gas) and their properties (volume, shape)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Classifying materials based on physical properties (e.g., weight/mass, volume, state of matter, conductivity of heat or electricity)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Mixtures, including methods for separating a mixture into its components (e.g., sifting, filtering, evaporation, using a magnet)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Properties of magnets (e.g., like poles repel and opposite poles attract, magnets can attract some objects)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) Physical changes in everyday life (e.g., changes of state, dissolving)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f) Chemical changes in everyday life (e.g., decaying, burning, rusting, cooking)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g) Common sources of energy (e.g., the Sun, wind, oil) and uses of energy (heating and cooling homes, providing light)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
h) Light and sound in everyday life (e.g., shadows and reflections, vibrating objects make sound)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Previous 35/36 [Table of Contents](#) Next

© IEA Online SurveySystem 2019 - Help (Continued on Next Page)

Source: [TIMSS 2019 Grade 4 Curriculum Questionnaire](#)

Exhibit D-4. TIMSS 2019 Grade 4 Curriculum Questionnaire—Continued

(Continued)

TIMSS - 2019 - English
You are logged in as: 9998 [Logout](#)

TIMSS 2019 Curriculum Questionnaire – Fourth Grade - Fourth Grade Science Topics Covered

i) Heat transfer (e.g., energy flows from a hot object to a colder object)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
j) Electricity and simple electrical circuits (e.g., a circuit must be complete to work correctly)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
k) Forces that cause objects to move (e.g., gravity, pushing/pulling) or change their motion (e.g., friction)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
l) Simple machines (e.g., levers, pulleys, wheels, ramps) that help make motion easier	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Comments:

[Previous](#) 35/36 [Table of Contents](#) [Next](#)

© IEA Online SurveySystem 2019 - [Help](#)

Source: [TIMSS 2019 Grade 4 Curriculum Questionnaire](#)



TIMSS - 2019 - English
 You are logged in as: 9998 [Logout](#)

TIMSS 2019 Curriculum Questionnaire – Fourth Grade - Fourth Grade Science Topics Covered

S7. (continued)
(i) According to the national science curriculum, what proportion of grade 4 students should have been taught each of the following topics or skills by the end of grade 4?

Be sure to include curriculum expectations for all grades up to and including grade 4. Grades represent years of formal schooling. For example, if "Year 5" in your country corresponds to the fourth year of formal schooling, please choose grade 4.

(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., birds in part A topic (a)], please explain in the comment field.

	(i) Proportion of grade 4 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												
	All or almost all students	Only the more able students	Not included in the curriculum through grade 4	PP	G1	G2	G3	G4	G5	G6	G7	G8	G9	G10	G11	G12
C. Earth Science																
a) Physical makeup of Earth's surface (e.g., land and water in unequal proportions, sources of fresh and salt water)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Earth's resources used in everyday life (e.g., water, wind, soil, forests, oil, natural gas, minerals)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Changes in Earth's surface over time (e.g., mountain building, weathering, erosion)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Fossils and what they can tell us about past conditions on Earth	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) Weather and climate (e.g., daily, seasonal, and locational variations versus long term trends)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f) Objects in the Solar System (the Sun, the Earth, the Moon, and other planets) and their movements	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g) Earth's motion and related patterns observed on Earth (e.g., day and night, seasons)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Previous 36/36 [Table of Contents](#) Next

© IEA Online SurveySystem 2019 - Help (Continued on Next Page)

Exhibit D-4. TIMSS 2019 Grade 4 Curriculum Questionnaire—Continued

TIMSS - 2019 - English (Continued)
You are logged in as: 9998 Logout

TIMSS 2019 Curriculum Questionnaire – Fourth Grade - Fourth Grade Science Topics Covered

Comments:

Previous 36/36 Table of Contents Next

© IEA Online SurveySystem 2019 - Help

Source: [TIMSS 2019 Grade 4 Curriculum Questionnaire](#)

Exhibit D-4. TIMSS 2019 Grade 4 Curriculum Questionnaire—Continued

IEA
TIMSS
2019

TIMSS - 2019 - English
You are logged in as: 9998 Logout

TIMSS 2019 Curriculum Questionnaire - Fourth Grade

Thank you for completing the TIMSS 2019 Curriculum Questionnaire.
Your information has been stored successfully.

Prepare printer version

© IEA Online SurveySystem 2019 - Help

Source: [TIMSS 2019 Grade 4 Curriculum Questionnaire](#)

The graphic features a vertical stack of elements. At the top is a black box with the IEA logo and 'TIMSS 2019' in white. Below this is a 6x3 grid of colored squares in shades of blue and grey. Underneath the grid is the word 'Grade' and a large blue number '4'. To the right of the grid is a large light blue horizontal bar. At the bottom left is a grey bar with '© IEA, 2019'. At the bottom right is the IEA logo and the text 'TIMSS & PIRLS International Study Center Lynch School of Education BOSTON COLLEGE'. In the top right corner is the Boston College seal and the text 'BOSTON COLLEGE timss.bc.edu'.

IEA
TIMSS
2019

Grade
4

© IEA, 2019

IEA
TIMSS & PIRLS
International Study Center
Lynch School of Education
BOSTON COLLEGE

BOSTON COLLEGE
timss.bc.edu

Source: [TIMSS 2019 Grade 4 Curriculum Questionnaire](#)

IEA
TIMSS
2019

Place Label Here
School ID _____
Checksum _____

TRENDS IN INTERNATIONAL MATHEMATICS AND SCIENCE STUDY

School Questionnaire

Grade 8

National Center for Education Statistics
U.S. Department of Education
Potomac Center Plaza (PCP), 550 12th St., SW, 4th floor
Washington, DC 20202
USA

The National Center for Education Statistics (NCES), within the U.S. Department of Education, conducts TIMSS in the United States as authorized by the Education Sciences Reform Act of 2002 (ESRA 2002, 20 U.S.C. §9543). All of the information you provide may be used only for statistical purposes and may not be disclosed, or used, in identifiable form for any other purpose except as required by law (20 U.S.C. §9573 and 6 U.S.C. §1511).

According to the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless such collection displays a valid OMB control number. The valid OMB control number for this voluntary information collection is 1850-0695. The time required to complete this information collection is estimated to average 30 minutes per principal, including the time to review instructions, search existing data resources, gather the data needed, and complete and review the information collection. If you have any comments or concerns regarding the accuracy of the time estimate(s), suggestions for improving the form, or questions about the status of your individual submission of this form, write directly to: Trends in International Mathematics and Science Study (TIMSS), National Center for Education Statistics, Potomac Center Plaza (PCP), 550 12th St., SW, 4th floor, Washington, DC 20202.

OMB No. 1850-0695, Approval Expires 01/31/2021.

© IEA, 2018
1117378 Printed in the USA ISD19890

TIMSS & PIRLS
International Study Center
Lynch School of Education
BOSTON COLLEGE

School Questionnaire

Your school has agreed to participate in TIMSS 2019 (Trends in International Mathematics and Science Study), an educational research project sponsored by the International Association for the Evaluation of Educational Achievement (IEA). TIMSS measures trends in student achievement in mathematics and science and studies differences in national education systems in almost 60 countries in order to help improve teaching and learning worldwide.

This questionnaire is addressed to school principals and department heads who are asked to supply information about their schools. Since your school has been selected as part of a nationwide sample, your responses are very important in helping to describe eighth-grade education in the United States.

It is important that you answer each question carefully so that the information provided reflects the situation in your school as accurately as possible. Some of the questions will require that you look up school records, so you may wish to arrange for the assistance of another staff member to help provide this information.

Since TIMSS is an international study and all countries are using the same questionnaire, you may find that some of the questions seem unusual or are not entirely relevant to you or schools in the United States. Nevertheless, it is important that you do your best to answer all of the questions so comparisons can be made across countries in the study.

It is estimated that you will need about 30 minutes to complete the questionnaire. We appreciate the time and effort this takes and thank you for your cooperation and contribution.

When you have completed the questionnaire, please place it in the accompanying envelope and return it to the TIMSS school coordinator.

NCES is authorized to collect information from this questionnaire under the Education Sciences Reform Act of 2002 (ESRA 2002, 20 U.S.C. §9543). You do not have to provide the information requested. However, the information you provide will help the U.S. Department of Education's ongoing efforts to understand better how the educational system in the United States compares to that in other countries. There are no penalties should you choose not to participate in this study. All of the information you provide may be used only for statistical purposes and may not be disclosed, or used, in identifiable form for any other purpose except as required by law (20 U.S.C. §9573 and 6 U.S.C. §151). Your responses will be combined with those from other participants to produce summary statistics and reports.

This survey is estimated to take an average of 30 minutes, including time for reviewing instructions, and completing and reviewing the collection of information. An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing burden to: Trends in International Mathematics and Science Study (TIMSS), National Center for Education Statistics, Potomac Center Plaza (PCP), 550 12th St., SW, 4th floor, Washington, DC 20202.

Thank you.

TIMSS 2019

School Enrollment and Characteristics

1 _____
What is the total enrollment of students in your school as of April 1, 2019?

_____ students
 Write in the number.

2 _____
What is the total enrollment of eighth-grade students in your school as of April 1, 2019?

_____ students
 Write in the number.

3 _____
Approximately what percentage of students in your school have the following backgrounds?

Fill in only **one** circle for each row.

	0 to 10%	11 to 25%	26 to 50%	More than 50%
a) Come from economically disadvantaged homes -----	①	②	③	④
b) Come from economically affluent homes -----	①	②	③	④

4 _____
Around the 1st of October 2018, what percentage of students at this school were eligible to receive free or reduced-price lunches through the National School Lunch Program?

_____ percentage of students
 Write in the number.

5 _____
Approximately what percentage of students in your school have English as their native language?

Fill in **one** circle only.

- More than 90% --- ①
- 76 to 90% --- ②
- 51 to 75% --- ③
- 26 to 50% --- ④
- 25% or less --- ⑤

6 _____
Of the students currently enrolled in your school, what percentage has been identified as limited-English proficient (LEP)/English language learners (ELL)?

Fill in **one** circle only.

- 0% -- ①
- 1 - 5% -- ②
- 6 - 10% -- ③
- 11 - 25% -- ④
- 26 - 50% -- ⑤
- 51 - 75% -- ⑥
- 76 - 90% -- ⑦
- Over 90% -- ⑧

7

What type of school is this?

Fill in **one** circle only.

- Regular public school - ①
- A regular public school with a magnet program - ②
- A magnet school or school with a special program emphasis (e.g., Montessori, science/math school, performing arts school, talented/gifted school, foreign language immersion school) - ③
- Special education: a school that primarily serves students with disabilities - ④
- Alternative: a school designed to address the needs of students, typically at risk of educational failure, which cannot be met in regular schools - ⑤
- Vocational - ⑥
- Charter School - ⑦
- Private (independent) - ⑧
- Private (religiously affiliated) - ⑨
- Other - ⑩

8

A. How many people live in the city, town, or area where your school is located?

Fill in **one** circle only.

- More than 500,000 people --- ①
- 100,001 to 500,000 people --- ②
- 50,001 to 100,000 people --- ③
- 30,001 to 50,000 people --- ④
- 15,001 to 30,000 people --- ⑤
- 3,001 to 15,000 people --- ⑥
- 3,000 people or fewer --- ⑦

B. Which best describes the immediate area in which your school is located?

Fill in **one** circle only.

- Urban—Densely populated --- ①
- Suburban—On fringe or outskirts of urban area --- ②
- Medium size city or large town --- ③
- Small town or village --- ④
- Remote rural --- ⑤

9

Which best characterizes the average income level of the school's immediate area?

Fill in **one** circle only.

- High --- ①
- Medium --- ②
- Low --- ③

Instructional Time

10

For the eighth-grade students in your school:

A. How many days per year is your school open for instruction?

_____ days
Write in the number.

B. What is the total instructional time, excluding breaks, in a typical day?

_____ hours _____ minutes
Write in the number of hours and minutes per day.

C. In one calendar week, how many days is the school open for instruction?

Fill in **one** circle only.

- 6 days--- ①
- 5 1/2 days--- ②
- 5 days--- ③
- 4 1/2 days--- ④
- 4 days--- ⑤
- Other--- ⑥

Resources and Technology

11 _____
How many computers (including tablets) does your school have for use by eighth-grade students?

_____ computers
 Write in the number.

12 _____
A. Does your school have a science laboratory that can be used by eighth-grade students?

Fill in **one** circle only.

Yes --- (1)

No --- (2)

B. Do teachers usually have assistance available when students are conducting science experiments?

Fill in **one** circle only.

Yes --- (1)

No --- (2)

13 _____
Does your school use an online learning management system to support learning (e.g., teacher-student communication, management of grades, student access to course materials)?

Fill in **one** circle only.

Yes --- (1)

No --- (2)

14 _____
A. Does your school have a school library?

Fill in **one** circle only.

Yes --- (1)

No --- (2)

(If No, go to question 15) ↓

If Yes,

B. Approximately how many books (print) with different titles does your school library have (exclude magazines and periodicals)?

Fill in **one** circle only.

2,000 books or fewer --- (1)

More than 2,000 books --- (2)

15 _____
Does your school have classroom libraries?

Fill in **one** circle only.

Yes --- (1)

No --- (2)

16 _____
Does your school provide students access to digital learning resources (e.g., books, videos)?

Fill in **one** circle only.

Yes --- (1)

No --- (2)

17

How much is your school's capacity to provide instruction affected by a shortage or inadequacy of the following?

Fill in only **one** circle for each row.

	Not at all	A little	Some	A lot
A. General School Resources				
a) Instructional materials (e.g., textbooks) -----	①	②	③	④
b) Supplies (e.g., papers, pencils, materials) -----	①	②	③	④
c) School buildings and grounds -----	①	②	③	④
d) Heating/cooling and lighting systems -----	①	②	③	④
e) Instructional space (e.g., classrooms) -----	①	②	③	④
f) Technologically competent staff -----	①	②	③	④
g) Audio-visual resources for delivery of instruction (e.g., interactive white boards, digital projectors) -----	①	②	③	④
h) Computer technology for teaching and learning (e.g., computers or tablets for student use) -----	①	②	③	④
i) Resources for students with disabilities -----	①	②	③	④

Fill in only **one** circle for each row.

	Not at all	A little	Some	A lot
B. Resources for Mathematics Instruction				
a) Teachers with a specialization in mathematics -----	①	②	③	④
b) Computer software/ applications for mathematics instruction -----	①	②	③	④
c) Library resources relevant to mathematics instruction -----	①	②	③	④
d) Calculators for mathematics instruction -----	①	②	③	④
e) Concrete objects or materials to help students understand quantities or procedures -----	①	②	③	④
C. Resources for Science Instruction				
a) Teachers with a specialization in science -----	①	②	③	④
b) Computer software/ applications for science instruction -----	①	②	③	④
c) Library resources relevant to science instruction -----	①	②	③	④
d) Calculators for science instruction -----	①	②	③	④
e) Science equipment and materials for experiments -----	①	②	③	④

School Emphasis on Academic Success

18

How would you characterize each of the following within your school?

Fill in only **one** circle for each row.

-
- a) Teachers' understanding of the school's curricular goals --- ① — ② — ③ — ④ — ⑤
- b) Teachers' degree of success in implementing the school's curriculum ----- ① — ② — ③ — ④ — ⑤
- c) Teachers' expectations for student achievement ----- ① — ② — ③ — ④ — ⑤
- d) Teachers' ability to inspire students ----- ① — ② — ③ — ④ — ⑤
- e) Parental involvement in school activities ----- ① — ② — ③ — ④ — ⑤
- f) Parental commitment to ensure that students are ready to learn ----- ① — ② — ③ — ④ — ⑤
- g) Parental expectations for student achievement ----- ① — ② — ③ — ④ — ⑤
- h) Parental support for student achievement ----- ① — ② — ③ — ④ — ⑤
- i) Students' desire to do well in school ----- ① — ② — ③ — ④ — ⑤
- j) Students' ability to reach school's academic goals ----- ① — ② — ③ — ④ — ⑤
- k) Students' respect for classmates who excel academically ----- ① — ② — ③ — ④ — ⑤

19

How much do you agree with these statements about mathematics and science education within your school?

Fill in only **one** circle for each row.

-
- a) The school provides students with information about career options in mathematics and science ----- ① — ② — ③ — ④
- b) The school has initiatives to promote student interest in mathematics and science (e.g., student clubs, competitions) ----- ① — ② — ③ — ④
- c) The school promotes professional development for teachers of mathematics and science ----- ① — ② — ③ — ④
- d) The school provides extra lessons to help students excel in mathematics and science --- ① — ② — ③ — ④
- e) The school provides special activities in mathematics and science for interested students ----- ① — ② — ③ — ④
- f) The school has a specific goal to improve mathematics and science education ----- ① — ② — ③ — ④
- g) The school encourages students to continue studying mathematics and science in the future ----- ① — ② — ③ — ④
- h) Mathematics and science teachers in this school spend extra time working with students interested in mathematics and science ----- ① — ② — ③ — ④

School Discipline and Safety

20

To what degree is each of the following a problem among eighth-grade students in your school?

Fill in only **one** circle for each row.

	Not a problem	Minor problem	Moderate problem	Serious problem
a) Arriving late at school	①	②	③	④
b) Absenteeism (i.e., unjustified absences)	①	②	③	④
c) Classroom disturbance	①	②	③	④
d) Cheating	①	②	③	④
e) Profanity	①	②	③	④
f) Vandalism	①	②	③	④
g) Theft	①	②	③	④
h) Intimidation or verbal abuse among students (including texting, emailing, etc.)	①	②	③	④
i) Physical injury to other students	①	②	③	④
j) Intimidation or verbal abuse of teachers or staff (including texting, emailing, etc.)	①	②	③	④
k) Physical injury to teachers or staff	①	②	③	④

21

To what degree is each of the following a problem among teachers in your school?

Fill in only **one** circle for each row.

	Not a problem	Minor problem	Moderate problem	Serious problem
a) Arriving late or leaving early	①	②	③	④
b) Absenteeism	①	②	③	④

Teachers In Your School

22

In your school, are any of the following used to evaluate the practice of eighth-grade mathematics teachers?

Fill in only **one** circle for each row.

	Yes	No
a) Observations by the principal or senior staff	①	②
b) Observations by inspectors or other persons external to the school	①	②
c) Student achievement	①	②
d) Teacher peer review	①	②

23

In your school, are any of the following used to evaluate the practice of eighth-grade science teachers?

Fill in only **one** circle for each row.

	Yes	No
a) Observations by the principal or senior staff	①	②
b) Observations by inspectors or other persons external to the school	①	②
c) Student achievement	①	②
d) Teacher peer review	①	②

Principal Experience and Education

24 _____
By the end of this school year, how many years altogether will you have been a principal?

_____ years
 Please **round** to the nearest whole number.

25 _____
By the end of this school year, how many years will you have been a principal at this school?

_____ years
 Please **round** to the nearest whole number.

26 _____
What is the highest level of formal education you have completed?

Fill in **one** circle only.

- Did not complete Bachelor's degree (4-year college program) --- ①
- Bachelor's degree (4-year college program) --- ②
- Master's degree or professional degree (MD, DDS, lawyer, minister) --- ③
- Doctorate (Ph.D., Ed.D.) --- ④

27 _____
Do you hold the following qualifications or credentials in educational leadership?

Fill in only **one** circle for each row.

- | | | |
|---|-----|----|
| | Yes | No |
| | | |
| | | |
| a) Principal Certification ----- | ① | ② |
| b) Master's degree or professional degree (MD, DDS, lawyer, minister) ----- | ① | ② |
| c) Doctorate (Ph.D., Ed.D.) ----- | ① | ② |

Thank You

Thank you for the thought, time, and effort you have put into completing this questionnaire.

Grade 8




BOSTON
COLLEGE

timss.bc.edu



© IEA, 2018
International Association
for the Evaluation of
Educational Achievement



IEA
TIMSS
2019

Place Label Here

School ID: _____

Class ID: _____

Teacher ID: _____

Link #: _____ Subject: _____

Checksum: _____

TRENDS IN INTERNATIONAL MATHEMATICS AND SCIENCE STUDY

Teacher Questionnaire Mathematics

Grade 8

National Center for Education Statistics
U.S. Department of Education
Potomac Center Plaza (PCP), 550 12th St., SW, 4th floor
Washington, DC 20202
USA

The National Center for Education Statistics (NCES), within the U.S. Department of Education, conducts TIMSS in the United States as authorized by the Education Sciences Reform Act of 2002 (ESRA 2002, 20 U.S.C. §9543). All of the information you provide may be used only for statistical purposes and may not be disclosed, or used, in identifiable form for any other purpose except as required by law (20 U.S.C. §9573 and 6 U.S.C. §151).

According to the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless such collection displays a valid OMB control number. The valid OMB control number for this voluntary information collection is 1850-0695. The time required to complete this information collection is estimated to average 30 minutes per teacher, including the time to review instructions, search existing data resources, gather the data needed, and complete and review the information collection. If you have any comments or concerns regarding the accuracy of the time estimate(s), suggestions for improving the form, or questions about the status of your individual submission of this form, write directly to: Trends in International Mathematics and Science Study (TIMSS), National Center for Education Statistics, Potomac Center Plaza (PCP), 550 12th St., SW, 4th floor, Washington, DC 20202.

OMB No. 1850-0695, Approval Expires 01/31/2021.

© IEA, 2018

1117375 Printed in the USA ISD19887

TIMSS & PIRLS
International Study Center
Lynch School of Education
BOSTON COLLEGE

Teacher Questionnaire

Your school has agreed to participate in TIMSS 2019 (Trends in International Mathematics and Science Study), an educational research project sponsored by the International Association for the Evaluation of Educational Achievement (IEA). TIMSS measures trends in student achievement in mathematics and science and studies differences in national education systems in almost 60 countries in order to help improve teaching and learning worldwide.

This questionnaire is addressed to teachers of eighth-grade students, and seeks information about teachers' academic and professional backgrounds, classroom resources, instructional practices, and attitudes toward teaching. Since your class has been selected as part of a nationwide sample, your responses are very important in helping to describe eighth-grade education in the United States.

Some of the questions in the questionnaire refer to the **"TIMSS class"** or **"this class."** This is the class that is identified on the front of this booklet, and which will be tested as part of TIMSS in your school. If you teach some but not all of the students in the TIMSS class, please think only of the students that you teach when answering these class-specific questions. It is important that you answer each question carefully so that the information that you provide reflects your situation as accurately as possible.

Since TIMSS is an international study and all countries are using the same questionnaire, you may find that some of the questions seem unusual or are not entirely relevant to you or schools in the United States. Nevertheless, it is important that you do your best to answer all of the questions so comparisons can be made across countries in the study.

It is estimated that you will need about 30 minutes to complete this questionnaire. We appreciate the time and effort that this takes and thank you for your cooperation and contribution.

When you have completed the questionnaire, please place it in the accompanying envelope and return it to the TIMSS school coordinator.

NCES is authorized to collect information from this questionnaire under the Education Sciences Reform Act of 2002 (ESRA 2002, 20 U.S.C. §9543). You do not have to provide the information requested. However, the information you provide will help the U.S. Department of Education's ongoing efforts to understand better how the educational system in the United States compares to that in other countries. There are no penalties should you choose not to participate in this study. All of the information you provide may be used only for statistical purposes and may not be disclosed, or used, in identifiable form for any other purpose except as required by law (20 U.S.C. §9573 and 6 U.S.C. §151). Your responses will be combined with those from other participants to produce summary statistics and reports.

This survey is estimated to take an average of 30 minutes, including time for reviewing instructions, and completing and reviewing the collection of information. An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing burden to: Trends in International Mathematics and Science Study (TIMSS), National Center for Education Statistics, Potomac Center Plaza (PCP), 550 12th St., SW, 4th floor, Washington, DC 20202.

TIMSS 2019

Thank you.

About You

1 _____
What year did you start teaching?

_____ years
 Please write in a year.

2 _____
At the end of this school year, how many years will you have taught altogether?

_____ years
 Please **round** to the nearest whole number.

3 _____
Are you female or male?

Fill in **one** circle only.

Female --- (1)

Male --- (2)

4 _____
How old are you?

Fill in **one** circle only.

Under 25 --- (1)

25–29 --- (2)

30–39 --- (3)

40–49 --- (4)


50–59 --- (5)

60 or more --- (6)

5 _____
What is the highest level of formal education you have completed?

Fill in **one** circle only.

Did not complete high school --- (1)

High school graduate --- (2) 

(If you have not completed more than high school, go to question 7)

Associate's degree
 (2-year college program) --- (3)

Bachelor's degree
 (4-year college program) --- (4)

Master's degree or professional
 degree (MD, DDS, lawyer, minister) --- (5)

Doctorate (Ph.D., Ed.D.) --- (6)

6 _____
During your college or university education, what was your major or main area(s) of study?

Fill in only **one** circle for each row.

- | | Yes | No |
|--------------------------------|-----|-----|
| a) Mathematics ----- | (1) | (2) |
| b) Biology ----- | (1) | (2) |
| c) Physics ----- | (1) | (2) |
| d) Chemistry ----- | (1) | (2) |
| e) Earth Science ----- | (1) | (2) |
| f) Education–Mathematics ----- | (1) | (2) |
| g) Education–Science ----- | (1) | (2) |
| h) Education–General ----- | (1) | (2) |
| i) Other ----- | (1) | (2) |

School Emphasis on Academic Success

7

How would you characterize each of the following within your school?

Fill in only **one** circle for each row.

-
- a) Teachers' understanding of the school's curricular goals ① — ② — ③ — ④ — ⑤
 - b) Teachers' degree of success in implementing the school's curriculum ① — ② — ③ — ④ — ⑤
 - c) Teachers' expectations for student achievement ① — ② — ③ — ④ — ⑤
 - d) Teachers' ability to inspire students ① — ② — ③ — ④ — ⑤
 - e) Parental involvement in school activities ① — ② — ③ — ④ — ⑤
 - f) Parental commitment to ensure that students are ready to learn ① — ② — ③ — ④ — ⑤
 - g) Parental expectations for student achievement ① — ② — ③ — ④ — ⑤
 - h) Parental support for student achievement ① — ② — ③ — ④ — ⑤
 - i) Students' desire to do well in school ① — ② — ③ — ④ — ⑤
 - j) Students' ability to reach school's academic goals ① — ② — ③ — ④ — ⑤
 - k) Students' respect for classmates who excel academically ① — ② — ③ — ④ — ⑤
 - l) Collaboration between school leadership (including master teachers) and teachers to plan instruction ① — ② — ③ — ④ — ⑤

School Environment

8

Thinking about your current school, indicate the extent to which you agree or disagree with each of the following statements.

Fill in only **one** circle for each row.

-
- a) This school is located in a safe neighborhood ① — ② — ③ — ④
 - b) I feel safe at this school ① — ② — ③ — ④
 - c) This school's security policies and practices are sufficient ① — ② — ③ — ④
 - d) The students behave in an orderly manner ① — ② — ③ — ④
 - e) The students are respectful of the teachers ① — ② — ③ — ④
 - f) The students respect school property ① — ② — ③ — ④
 - g) This school has clear rules about student conduct ① — ② — ③ — ④
 - h) This school's rules are enforced in a fair and consistent manner ① — ② — ③ — ④

About Being a Teacher

9

How often do you feel the following way about being a teacher?

Fill in only **one** circle for each row.

- | | Very often | Often | Sometimes | Never or almost never |
|---|------------|-------|-----------|-----------------------|
| a) I am content with my profession as a teacher ----- | ① | ② | ③ | ④ |
| b) I find my work full of meaning and purpose ----- | ① | ② | ③ | ④ |
| c) I am enthusiastic about my job ----- | ① | ② | ③ | ④ |
| d) My work inspires me ----- | ① | ② | ③ | ④ |
| e) I am proud of the work I do ----- | ① | ② | ③ | ④ |

10

Indicate the extent to which you agree or disagree with each of the following statements.

Fill in only **one** circle for each row.

- | | Agree a lot | Agree a little | Disagree a little | Disagree a lot |
|---|-------------|----------------|-------------------|----------------|
| a) There are too many students in the classes ----- | ① | ② | ③ | ④ |
| b) I have too much material to cover in class ----- | ① | ② | ③ | ④ |
| c) I have too many teaching hours ----- | ① | ② | ③ | ④ |
| d) I need more time to prepare for class ----- | ① | ② | ③ | ④ |
| e) I need more time to assist individual students ----- | ① | ② | ③ | ④ |
| f) I feel too much pressure from parents ----- | ① | ② | ③ | ④ |
| g) I have difficulty keeping up with all of the changes to the curriculum ----- | ① | ② | ③ | ④ |
| h) I have too many administrative tasks ----- | ① | ② | ③ | ④ |

About Teaching the TIMSS Class

Questions 11-14 ask about instruction for the **eighth-grade** students in the TIMSS class.

11

How many students are in this class?

_____ students
Write in the number.

12

How many eighth-grade students experience difficulties understanding spoken English?

_____ students in this class
Write in the number.

13

How often do you do the following in teaching this class?

Fill in only **one** circle for each row.

- Every or almost every lesson**
About half the lessons
Some lessons
Never
- a) Relate the lesson to students' daily lives ----- ① — ② — ③ — ④
- b) Ask students to explain their answers ----- ① — ② — ③ — ④
- c) Ask students to complete challenging exercises that require them to go beyond the instruction ----- ① — ② — ③ — ④
- d) Encourage classroom discussions among students ----- ① — ② — ③ — ④
- e) Link new content to students' prior knowledge ---- ① — ② — ③ — ④
- f) Ask students to decide their own problem solving procedures ----- ① — ② — ③ — ④
- g) Encourage students to express their ideas in class ---- ① — ② — ③ — ④

14

In your view, to what extent do the following limit how you teach this class?

Fill in only **one** circle for each row.

- Not at all**
Some
A lot
- a) Students lacking prerequisite knowledge or skills ----- ① — ② — ③
- b) Students suffering from lack of basic nutrition ----- ① — ② — ③
- c) Students suffering from not enough sleep ----- ① — ② — ③
- d) Students absent from class ---- ① — ② — ③
- e) Disruptive students ----- ① — ② — ③
- f) Uninterested students ----- ① — ② — ③
- g) Students with mental, emotional, or psychological impairment ----- ① — ② — ③
- h) Students with difficulties understanding the language of instruction ----- ① — ② — ③

Teaching Mathematics to the TIMSS Class

Questions 15 - 17 ask about mathematics instruction for the eighth-grade students in the TIMSS class.

15

In a typical week, how much time do you spend teaching mathematics to the students in this class?

_____ minutes per week

Write in the number of minutes per week.

Please convert the number of hours into minutes.

16

In teaching mathematics to this class, how often do you ask students to do the following?

Fill in only **one** circle for each row.

- | | Every or almost every lesson | About half the lessons | Some lessons | Never |
|---|------------------------------|------------------------|--------------|-------|
| a) Listen to me explain new mathematics content ----- | ① | ② | ③ | ④ |
| b) Listen to me explain how to solve problems ----- | ① | ② | ③ | ④ |
| c) Memorize rules, procedures, and facts ----- | ① | ② | ③ | ④ |
| d) Practice procedures on their own ----- | ① | ② | ③ | ④ |
| e) Apply what they have learned to new problem situations on their own ----- | ① | ② | ③ | ④ |
| f) Work problems together in the whole class with direct guidance from me ----- | ① | ② | ③ | ④ |
| g) Work in mixed ability groups -- | ① | ② | ③ | ④ |
| h) Work in same ability groups -- | ① | ② | ③ | ④ |

17

Which best describes the mathematics course you are teaching to the class with the TIMSS students?

Fill in **one** circle only.

- a) Basic or general eighth-grade math (not algebra or pre-algebra)----- ①
- b) Pre-algebra or introduction to algebra ----- ②
- c) Two-year pre-algebra----- ③
- d) Algebra I (one-year course) ----- ④
- e) Algebra I (first year of a two-year Algebra I course) ----- ⑤
- f) Algebra I (second year of two-year Algebra I course) ----- ⑥
- g) Geometry ----- ⑦
- h) Algebra II ----- ⑧
- i) Integrated or sequential math----- ⑨
- j) Other math class ----- ⑩

Using Calculators and Computers for Teaching Mathematics to the TIMSS Class

Questions 18 - 19 ask about calculator and computer use for teaching mathematics to the eighth-grade students in the TIMSS class.

18 Are the students in this class permitted to use calculators during mathematics lessons?

Fill in **one** circle only.

- Yes, with unrestricted use --- ①
- Yes, with restricted use --- ②
- No, calculators are not permitted --- ③

19 A. Do the students in this class have computers (including tablets) available to use during their mathematics lessons?

Fill in **one** circle only.

- Yes --- ①
 - No --- ②
- (If No, go to question 20)

If Yes,

B. What access do the students have to computers?

Fill in only **one** circle for each row.

	Yes	No
a) Each student has a computer -----	①	②
b) The class has computers that students can share -----	①	②
c) The school has computers that the class can use sometimes -----	①	②

C. How often do you do activities on computers during mathematics lessons to support learning for:

Fill in only **one** circle for each row.

	Every or almost every day	Once or twice a week	Once or twice a month	Never or almost never
a) Whole class -----	①	②	③	④
b) Low-performing students -----	①	②	③	④
c) High-performing students -----	①	②	③	④
d) Students with special needs -----	①	②	③	④

Mathematics Topics Taught to the TIMSS Class

Question 20 asks about the topics taught and the content covered in teaching mathematics to the eighth-grade students in the TIMSS class.

20

The following list includes the main topics addressed by the TIMSS mathematics test. Choose the response that best describes when the students in this class have been taught each topic. If a topic was in the curriculum before the eighth grade, please choose “Mostly taught before this year.” If a topic was taught half this year but not yet completed, please choose “Mostly taught this year.” If a topic is not in the curriculum, please choose “Not yet taught or just introduced.”

Fill in only **one** circle for each row.

	Mostly taught before this year	Mostly taught this year	Not yet taught or just introduced
A. Number			
a) Computing with negative numbers	①	②	③
b) Concepts of fractions and decimals	①	②	③
c) Solving problems involving proportions and percents	①	②	③
B. Algebra			
a) Simplifying and evaluating algebraic expressions	①	②	③
b) Simple linear equations	①	②	③
c) Simple linear inequalities	①	②	③
d) Simultaneous (two variables) equations	①	②	③
e) Representation of linear and quadratic functions in tables, graphs, words, or equations	①	②	③
f) Properties of functions (slopes, intercepts, etc.)	①	②	③
g) Numeric, algebraic, and geometric patterns or sequences (extension, missing terms, generalization of patterns)	①	②	③
C. Geometry			
a) Geometric properties of angles, pairs of lines, and geometric shapes (triangles, quadrilaterals, and other common polygons)	①	②	③
b) Solving problems involving perimeters, circumferences, and areas	①	②	③
c) Solving problems involving the Pythagorean Theorem	①	②	③
d) Translation, reflection, and rotation	①	②	③
e) Congruent figures and similar triangles	①	②	③
f) Solving problems with three-dimensional shapes	①	②	③
D. Data and Probability			
a) Reading and interpreting data from one or more sources to solve problems (interpolating, extrapolating, drawing conclusions)	①	②	③
b) Identifying appropriate procedures for collecting data	①	②	③
c) Organizing and representing data to help answer questions	①	②	③
d) Calculating and interpreting statistics summarizing data distributions	①	②	③
e) Theoretical and empirical probability of simple events	①	②	③
f) Theoretical and empirical probability of compound events	①	②	③


Mathematics Homework for the TIMSS Class

Question 21 asks about mathematics homework for the eighth-grade students in the TIMSS class.

21

A. How often do you usually assign mathematics homework to the students in this class?

Fill in **one** circle only.

- I do not assign mathematics homework ---- ① 
 (Go to question 22)
- Less than once a week ---- ②
- 1 or 2 times a week ---- ③
- 3 or 4 times a week ---- ④
- Every day ---- ⑤

B. When you assign mathematics homework to the students in this class, about how many minutes do you usually assign? (Consider the time it would take an average student in your class.)

Fill in **one** circle only.

- 15 minutes or less ---- ①
- 16–30 minutes ---- ②
- 31–60 minutes ---- ③
- 61–90 minutes ---- ④
- More than 90 minutes ---- ⑤

C. How often do you do the following with the mathematics homework assignments for this class?

Fill in **only one** circle for each row.

- | | Always or almost always | Sometimes | Never or almost never |
|---|-------------------------|-----------|-----------------------|
| a) Correct assignments and give feedback to students | ① | ② | ③ |
| b) Have students correct their own homework | ① | ② | ③ |
| c) Discuss the homework in class | ① | ② | ③ |
| d) Monitor whether or not the homework was completed | ① | ② | ③ |
| e) Use the homework to contribute towards students' grades or marks | ① | ② | ③ |

Mathematics Assessment of the TIMSS Class

Questions 22 - 23 ask about mathematics assessment for the eighth-grade students in the TIMSS class.

22

How much importance do you place on the following assessment strategies in mathematics?

Fill in **only one** circle for each row.

- | | A Lot | Some | None |
|---|-------|------|------|
| a) Observing students as they work | ① | ② | ③ |
| b) Asking students to answer questions during class | ① | ② | ③ |
| c) Short, regular written assessments | ① | ② | ③ |
| d) Longer tests (e.g., unit tests or exams) | ① | ② | ③ |
| e) Long-term projects | ① | ② | ③ |

23

About how often do eighth-grade students in this class take mathematics tests on computers or tablets?

Fill in **one** circle only.

- More than once a month --- ①
- Once a month --- ②
- Twice a year -- ③
- Once a year --- ④
- Never -- ⑤

Professional Development to Teach Mathematics

24

A. In the past two years, have you participated in professional development in any of the following?

Fill in **one** circle for each row.

	Yes		No	
a) Mathematics content	①	②	①	②
b) Mathematics pedagogy/instruction	①	②	①	②
c) Mathematics curriculum	①	②	①	②
d) Integrating technology into mathematics instruction	①	②	①	②
e) Improving students' critical thinking or problem solving skills	①	②	①	②
f) Mathematics assessment	①	②	①	②
g) Addressing individual students' needs	①	②	①	②

25

In the past two years, how many hours in total have you spent in formal in-service/professional development (e.g., workshops, seminars) for mathematics?

Fill in **one** circle only.

None---- ①
 Less than 6 hours---- ②
 6–15 hours---- ③
 16–35 hours---- ④
 More than 35 hours---- ⑤

Thank You

Thank you for the thought, time, and effort you have put into completing this questionnaire.

THIS PAGE LEFT BLANK ON PURPOSE

THIS PAGE LEFT BLANK ON PURPOSE

Grade 8




BOSTON
COLLEGE

timss.bc.edu



© IEA, 2018
International Association
for the Evaluation of
Educational Achievement



Place Label Here

School ID: _____

Class ID: _____

Teacher ID: _____

Link #: _____ Subject: _____

Checksum: _____

TRENDS IN INTERNATIONAL MATHEMATICS AND SCIENCE STUDY

Teacher Questionnaire

Science

Grade 8

National Center for Education Statistics
U.S. Department of Education
Potomac Center Plaza (PCP), 550 12th St., SW, 4th floor
Washington, DC 20202
USA

The National Center for Education Statistics (NCES), within the U.S. Department of Education, conducts TIMSS in the United States as authorized by the Education Sciences Reform Act of 2002 (ESRA 2002, 20 U.S.C. §9543). All of the information you provide may be used only for statistical purposes and may not be disclosed, or used, in identifiable form for any other purpose except as required by law (20 U.S.C. §9573 and 6 U.S.C. §151).

According to the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless such collection displays a valid OMB control number. The valid OMB control number for this voluntary information collection is 1850-0695. The time required to complete this information collection is estimated to average 30 minutes per teacher, including the time to review instructions, search existing data resources, gather the data needed, and complete and review the information collection. If you have any comments or concerns regarding the accuracy of the time estimate(s), suggestions for improving the form, or questions about the status of your individual submission of this form, write directly to: Trends in International Mathematics and Science Study (TIMSS), National Center for Education Statistics, Potomac Center Plaza (PCP), 550 12th St., SW, 4th floor, Washington, DC 20202.

OMB No. 1850-0695, Approval Expires 01/31/2021.

© IEA, 2018
1117376 Printed in the USA ISD19888

TIMSS & PIRLS
International Study Center
Lynch School of Education
BOSTON COLLEGE

Teacher Questionnaire

Your school has agreed to participate in TIMSS 2019 (Trends in International Mathematics and Science Study), an educational research project sponsored by the International Association for the Evaluation of Educational Achievement (IEA). TIMSS measures trends in student achievement in mathematics and science and studies differences in national education systems in almost 60 countries in order to help improve teaching and learning worldwide.

This questionnaire is addressed to teachers of eighth-grade students, and seeks information about teachers' academic and professional backgrounds, classroom resources, instructional practices, and attitudes toward teaching. Since your class has been selected as part of a nationwide sample, your responses are very important in helping to describe eighth-grade education in the United States.

Some of the questions in the questionnaire refer to the **"TIMSS class"** or **"this class."** This is the class that is identified on the front of this booklet, and which will be tested as part of TIMSS in your school. If you teach some but not all of the students in the TIMSS class, please think only of the students that you teach when answering these class-specific questions. It is important that you answer each question carefully so that the information that you provide reflects your situation as accurately as possible.

Since TIMSS is an international study and all countries are using the same questionnaire, you may find that some of the questions seem unusual or are not entirely relevant to you or schools in the United States. Nevertheless, it is important that you do your best to answer all of the questions so comparisons can be made across countries in the study.

It is estimated that you will need about 30 minutes to complete this questionnaire. We appreciate the time and effort that this takes and thank you for your cooperation and contribution.

When you have completed the questionnaire, please place it in the accompanying envelope and return it to the TIMSS school coordinator.

NCES is authorized to collect information from this questionnaire under the Education Sciences Reform Act of 2002 (ESRA 2002, 20 U.S.C. §9543). You do not have to provide the information requested. However, the information you provide will help the U.S. Department of Education's ongoing efforts to understand better how the educational system in the United States compares to that in other countries. There are no penalties should you choose not to participate in this study. All of the information you provide may be used only for statistical purposes and may not be disclosed, or used, in identifiable form for any other purpose except as required by law (20 U.S.C. §9573 and 6 U.S.C. §151). Your responses will be combined with those from other participants to produce summary statistics and reports.

This survey is estimated to take an average of 30 minutes, including time for reviewing instructions, and completing and reviewing the collection of information. An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing burden to: Trends in International Mathematics and Science Study (TIMSS), National Center for Education Statistics, Potomac Center Plaza (PCP), 550 12th St., SW, 4th floor, Washington, DC 20202.

Thank you.

TIMSS 2019

About You

1 _____
What year did you start teaching?

 Please write in a year.

2 _____
At the end of this school year, how many years will you have taught altogether?

_____ years
 Please **round** to the nearest whole number.

3 _____
Are you female or male?

Fill in **one** circle only.

- Female -- ①
 Male -- ②


4 _____
How old are you?

Fill in **one** circle only.

- Under 25 -- ①
 25–29 -- ②
 30–39 -- ③
 40–49 -- ④
 50–59 -- ⑤
 60 or more -- ⑥

5 _____
What is the highest level of formal education you have completed?

Fill in **one** circle only.

- Did not complete high school --- ①
 High school graduate --- ② 

(If you have not completed more than high school, go to question 7)

- Associate's degree
 (2-year college program) --- ③
 Bachelor's degree
 (4-year college program) --- ④
 Master's degree or professional
 degree (MD, DDS, lawyer, minister) --- ⑤
 Doctorate (Ph.D., Ed.D.) --- ⑥

6 _____
During your college or university education, what was your major or main area(s) of study?

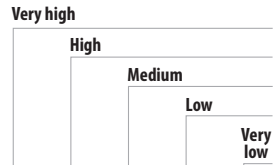
Fill in only **one** circle for each row.

- | | Yes | No |
|--------------------------------|-----|----|
| a) Mathematics ----- | ① | ② |
| b) Biology ----- | ① | ② |
| c) Physics ----- | ① | ② |
| d) Chemistry ----- | ① | ② |
| e) Earth Science ----- | ① | ② |
| f) Education–Mathematics ----- | ① | ② |
| g) Education–Science ----- | ① | ② |
| h) Education–General ----- | ① | ② |
| i) Other ----- | ① | ② |

School Emphasis on Academic Success

7 How would you characterize each of the following within your school?

Fill in only **one** circle for each row.



- a) Teachers' understanding of the school's curricular goals --- ① — ② — ③ — ④ — ⑤
- b) Teachers' degree of success in implementing the school's curriculum ----- ① — ② — ③ — ④ — ⑤
- c) Teachers' expectations for student achievement ----- ① — ② — ③ — ④ — ⑤
- d) Teachers' ability to inspire students ----- ① — ② — ③ — ④ — ⑤
- e) Parental involvement in school activities ----- ① — ② — ③ — ④ — ⑤
- f) Parental commitment to ensure that students are ready to learn ----- ① — ② — ③ — ④ — ⑤
- g) Parental expectations for student achievement ----- ① — ② — ③ — ④ — ⑤
- h) Parental support for student achievement ----- ① — ② — ③ — ④ — ⑤
- i) Students' desire to do well in school ----- ① — ② — ③ — ④ — ⑤
- j) Students' ability to reach school's academic goals ----- ① — ② — ③ — ④ — ⑤
- k) Students' respect for classmates who excel academically ----- ① — ② — ③ — ④ — ⑤
- l) Collaboration between school leadership (including master teachers) and teachers to plan instruction ----- ① — ② — ③ — ④ — ⑤

School Environment

8 Thinking about your current school, indicate the extent to which you agree or disagree with each of the following statements.

Fill in only **one** circle for each row.



- a) This school is located in a safe neighborhood ----- ① — ② — ③ — ④
- b) I feel safe at this school ----- ① — ② — ③ — ④
- c) This school's security policies and practices are sufficient ----- ① — ② — ③ — ④
- d) The students behave in an orderly manner ----- ① — ② — ③ — ④
- e) The students are respectful of the teachers ----- ① — ② — ③ — ④
- f) The students respect school property ----- ① — ② — ③ — ④
- g) This school has clear rules about student conduct ----- ① — ② — ③ — ④
- h) This school's rules are enforced in a fair and consistent manner ----- ① — ② — ③ — ④

About Being a Teacher

9

How often do you feel the following way about being a teacher?

Fill in only **one** circle for each row.

- Very often Often Sometimes Never or almost never
- a) I am content with my profession as a teacher ----- ① — ② — ③ — ④
- b) I find my work full of meaning and purpose ----- ① — ② — ③ — ④
- c) I am enthusiastic about my job ----- ① — ② — ③ — ④
- d) My work inspires me ----- ① — ② — ③ — ④
- e) I am proud of the work I do ----- ① — ② — ③ — ④

10

Indicate the extent to which you agree or disagree with each of the following statements.

Fill in only **one** circle for each row.

- Agree a lot Agree a little Disagree a little Disagree a lot
- a) There are too many students in the classes ----- ① — ② — ③ — ④
- b) I have too much material to cover in class ----- ① — ② — ③ — ④
- c) I have too many teaching hours ----- ① — ② — ③ — ④
- d) I need more time to prepare for class ----- ① — ② — ③ — ④
- e) I need more time to assist individual students ----- ① — ② — ③ — ④
- f) I feel too much pressure from parents ----- ① — ② — ③ — ④
- g) I have difficulty keeping up with all of the changes to the curriculum ----- ① — ② — ③ — ④
- h) I have too many administrative tasks ----- ① — ② — ③ — ④

About Teaching the TIMSS Class

Questions 11 - 14 ask about instruction for the eighth-grade students in the TIMSS class.

11

How many students are in this class?

_____ students
Write in the number.

12

How many eighth-grade students experience difficulties understanding spoken English?

_____ students in this class
Write in the number.

13

How often do you do the following in teaching this class?

Fill in only **one** circle for each row.

- | | | | | |
|--|------------------------------|------------------------|--------------|-------|
| | Every or almost every lesson | About half the lessons | Some lessons | Never |
| a) Relate the lesson to students' daily lives ----- | ① | ② | ③ | ④ |
| b) Ask students to explain their answers ----- | ① | ② | ③ | ④ |
| c) Ask students to complete challenging exercises that require them to go beyond the instruction ----- | ① | ② | ③ | ④ |
| d) Encourage classroom discussions among students ----- | ① | ② | ③ | ④ |
| e) Link new content to students' prior knowledge ----- | ① | ② | ③ | ④ |
| f) Ask students to decide their own problem solving procedures ----- | ① | ② | ③ | ④ |
| g) Encourage students to express their ideas in class ----- | ① | ② | ③ | ④ |

14

In your view, to what extent do the following limit how you teach this class?

Fill in only **one** circle for each row.

- | | | | |
|---|------------|------|-------|
| | Not at all | Some | A lot |
| a) Students lacking prerequisite knowledge or skills ----- | ① | ② | ③ |
| b) Students suffering from lack of basic nutrition ----- | ① | ② | ③ |
| c) Students suffering from not enough sleep ----- | ① | ② | ③ |
| d) Students absent from class ----- | ① | ② | ③ |
| e) Disruptive students ----- | ① | ② | ③ |
| f) Uninterested students ----- | ① | ② | ③ |
| g) Students with mental, emotional, or psychological impairment ----- | ① | ② | ③ |
| h) Students with difficulties understanding the language of instruction ----- | ① | ② | ③ |

Teaching Science to the TIMSS Class

Questions 15 - 17 ask about science instruction for the eighth-grade students in the TIMSS class.

15

In a typical week, how much time do you spend teaching science to the students in this class?

_____ minutes per week
 Write in the number of minutes per week.
 Please convert the number of hours into minutes.

16

In teaching science to the students in this class, how often do you ask them to do the following?

Fill in only **one** circle for each row.

- | | Every or almost every lesson | About half the lessons | Some lessons | Never |
|---|------------------------------|------------------------|--------------|-------|
| a) Listen to me explain new science content ----- | ① | ② | ③ | ④ |
| b) Observe natural phenomena and describe what they see --- | ① | ② | ③ | ④ |
| c) Watch me demonstrate an experiment or investigation ----- | ① | ② | ③ | ④ |
| d) Design or plan experiments or investigations ----- | ① | ② | ③ | ④ |
| e) Conduct experiments or investigations ----- | ① | ② | ③ | ④ |
| f) Present data from experiments or investigations ----- | ① | ② | ③ | ④ |
| g) Interpret data from experiments or investigations ----- | ① | ② | ③ | ④ |
| h) Use evidence from experiments or investigations to support conclusions ----- | ① | ② | ③ | ④ |
| i) Read their textbooks or other resource materials ----- | ① | ② | ③ | ④ |
| j) Have students memorize facts and principles ----- | ① | ② | ③ | ④ |
| k) Use scientific formulas and laws to solve routine problems ----- | ① | ② | ③ | ④ |
| l) Do field work outside of class-- | ① | ② | ③ | ④ |
| m) Work in mixed ability groups -- | ① | ② | ③ | ④ |
| n) Work in same ability groups --- | ① | ② | ③ | ④ |

17

Which best describes the science course you are teaching to the class with the TIMSS students?

Fill in **one** circle only.

- a) General science (several content areas of science taught separately) ----- ①
- b) Integrated science (several content areas of science combined and taught together throughout the year) ----- ②
- c) Life science (e.g., biology, ecosystems, human health) ----- ③
- d) Physical science (e.g., physics or chemistry) ----- ④
- e) Earth science (e.g., geology, Earth and the solar system, fossils) ----- ⑤

Using Computers for Teaching Science to the TIMSS Class

Question 18 asks about computer use for teaching science to the eighth-grade students in the TIMSS class.

18

A. Do the students in this class have computers (including tablets) available to use during their science lessons?

Fill in **one** circle only.

Yes -- ①

No -- ②

(If No, go to question 19)

If Yes,

B. What access do the students have to computers?

Fill in only **one** circle for each row.

- | | Yes | No |
|--|-----|----|
| a) Each student has a computer ----- | ① | ② |
| b) The class has computers that students can share ----- | ① | ② |
| c) The school has computers that the class can use sometimes ----- | ① | ② |

C. How often do you do activities on computers during science lessons to support learning for:

Fill in only **one** circle for each row.

- | | Every or almost every day | Once or twice a week | Once or twice a month | Never or almost never |
|--------------------------------------|---------------------------|----------------------|-----------------------|-----------------------|
| a) Whole class ----- | ① | ② | ③ | ④ |
| b) Low-performing students ----- | ① | ② | ③ | ④ |
| c) High-performing students ----- | ① | ② | ③ | ④ |
| d) Students with special needs ----- | ① | ② | ③ | ④ |

Science Topics Taught to the TIMSS Class

Question 19 asks about the topics taught and the content covered in teaching science to the eighth-grade students in the TIMSS class.

19

The following list includes the main topics addressed by the TIMSS science test. Choose the response that best describes when the students in this class have been taught each topic. If a topic was in the curriculum before the eighth grade, please choose “Mostly taught before this year.” If a topic was taught half this year but not yet completed, please choose “Mostly taught this year.” If a topic is not in the curriculum, please choose “Not yet taught or just introduced.”

Fill in only **one** circle for each row.

	Mostly taught before this year	Mostly taught this year	Not yet taught or just introduced
A. Biology			
a) Differences among major taxonomic groups of organisms (plants, animals, fungi, mammals, birds, reptiles, fish, amphibians, insects) -----	①	②	③
b) Major organs and organ systems in humans and other organisms (structure/function, life processes)-----	①	②	③
c) Cells, their structure and functions, including respiration and photosynthesis as cellular processes-----	①	②	③
d) Life cycles, sexual reproduction, and heredity (inherited versus acquired/learned characteristics)-----	①	②	③
e) Role of variation and adaptation in survival/extinction of species (including fossil evidence)-----	①	②	③
f) Interdependence of populations of organisms in an ecosystem (e.g., carbon and water cycles, energy flow, food webs, competition, predation, human impacts on ecosystems)-----	①	②	③
g) Human health (e.g., causes, transmission, and prevention of common infectious diseases, immunity) and the importance of diet, exercise, and other lifestyle choices in maintaining health -----	①	②	③
B. Chemistry			
a) Particulate structure, classification, and composition of matter (protons, neutrons, electrons, atoms, molecules, elements, compounds, mixtures) -----	①	②	③
b) The periodic table as an organizing principle for the known elements-----	①	②	③
c) Physical and chemical properties of matter-----	①	②	③
d) Mixtures and solutions (e.g., solvent, solute, concentration/dilution) -----	①	②	③
e) Properties of common acids and bases (e.g., acids have pH less than 7, reactions with indicators produce color changes, acids and bases neutralize each other)-----	①	②	③
f) Characteristics of chemical reactions (e.g., transformation of reactants, evidence of chemical change) -----	①	②	③
g) Matter and energy in chemical reactions (conservation of matter, familiar exothermic and endothermic reactions, factors affecting reaction rates) -----	①	②	③
h) The role of electrons in chemical bonds -----	①	②	③

19 (continued)

Choose the response that best describes when the students in this class have been taught each topic. If a topic was in the curriculum before the eighth grade, please choose “Mostly taught before this year.” If a topic was taught half this year but not yet completed, please choose “Mostly taught this year.” If a topic is not in the curriculum, please choose “Not yet taught or just introduced.”

Fill in only **one** circle for each row.



C. Physics

- a) Physical states and changes in matter (explanations of properties in terms of movement and distance between particles; phase change, changes in volume and/or pressure, physical changes) ----- ① — ② — ③
- b) Energy transformation and transfer (e.g., forms of energy, energy conservation, heat temperature, equilibrium) ----- ① — ② — ③
- c) Basic properties/behaviors of light (reflection, refraction, color, shadows, simple ray diagrams) ----- ① — ② — ③
- d) Basic properties/behaviors of sound (vibrations that produce sound, transmission through media, loudness, pitch) ----- ① — ② — ③
- e) Electric circuits (e.g., electrical conductors/insulators and the flow of electricity in series/parallel circuits) ----- ① — ② — ③
- f) Properties and uses of permanent magnets and electromagnets ----- ① — ② — ③
- g) Motion and forces (e.g., basic description of motion, common mechanical forces, properties of forces, effects of forces, simple machines, buoyancy, effects of density and pressure) ----- ① — ② — ③

D. Earth Science

- a) Earth’s structure and physical features (e.g., Earth’s crust, mantle, and core; composition and relative distribution of water; composition of Earth’s atmosphere) ----- ① — ② — ③
- b) Earth’s processes, cycles, and history (e.g., rock cycle, major geological events, formation of fossils and fossil fuels, water cycle, weather versus climate) ----- ① — ② — ③
- c) Earth’s resources, their use, and conservation (e.g., renewable/nonrenewable resources, human use of land and water resources) ----- ① — ② — ③
- d) Earth in the Solar System and the universe (phenomena on Earth: seasons, eclipses, tides, phases of moon; members of the Solar System; physical features of Earth) ----- ① — ② — ③


Science Homework for the TIMSS Class

Question 20 asks about science homework for the eighth-grade students in the TIMSS class.

20

A. How often do you usually assign science homework to the students in this class?

Fill in **one** circle only.

- I do not assign science homework --- (1) 
- (Go to question 21)
- Less than once a week --- (2)
- 1 or 2 times a week --- (3)
- 3 or 4 times a week --- (4)
- Every day --- (5)

B. When you assign science homework to the students in this class, about how many minutes do you usually assign? (Consider the time it would take an average student in your class.)

Fill in **one** circle only.

- 15 minutes or less --- (1)
- 16–30 minutes --- (2)
- 31–60 minutes --- (3)
- 61–90 minutes --- (4)
- More than 90 minutes --- (5)

C. How often do you do the following with the science homework assignments for this class?

Fill in **only one** circle for each row.

- | | Always or almost always | Sometimes | Never or almost never |
|---|-------------------------|-----------|-----------------------|
| a) Correct assignments and give feedback to students | (1) | (2) | (3) |
| b) Have students correct their own homework | (1) | (2) | (3) |
| c) Discuss the homework in class | (1) | (2) | (3) |
| d) Monitor whether or not the homework was completed | (1) | (2) | (3) |
| e) Use the homework to contribute towards students' grades or marks | (1) | (2) | (3) |

Science Assessment of the TIMSS Class

Questions 21 - 22 ask about science assessment for the eighth-grade students in the TIMSS class.

21

How much importance do you place on the following assessment strategies in science?

Fill in **only one** circle for each row.

- | | A Lot | Some | None |
|---|-------|------|------|
| a) Observing students as they work | (1) | (2) | (3) |
| b) Asking students to answer questions during class | (1) | (2) | (3) |
| c) Short, regular written assessments | (1) | (2) | (3) |
| d) Longer tests (e.g., unit tests or exams) | (1) | (2) | (3) |
| e) Long-term projects | (1) | (2) | (3) |

22

About how often do eighth-grade students in this class take science tests on computers or tablets?

Fill in **one** circle only.

- More than once a month --- (1)
- Once a month --- (2)
- Twice a year -- (3)
- Once a year --- (4)
- Never -- (5)

Professional Development to Teach Science

23

A. In the past two years, have you participated in professional development in any of the following?

Fill in **one** circle for each row.

	Yes ①	No ②	Yes ①	No ②
a) Science content	①	②	①	②
b) Science pedagogy/instruction	①	②	①	②
c) Science curriculum	①	②	①	②
d) Integrating technology into science instruction	①	②	①	②
e) Improving students' critical thinking or inquiry skills	①	②	①	②
f) Science assessment	①	②	①	②
g) Addressing individual students' needs	①	②	①	②

24

In the past two years, how many hours in total have you spent in formal in-service/professional development (e.g., workshops, seminars) for science?

Fill in **one** circle only.

None --- ①
 Less than 6 hours --- ②
 6–15 hours --- ③
 16–35 hours --- ④
 More than 35 hours --- ⑤

Thank You

Thank you for the thought, time, and effort you have put into completing this questionnaire.

THIS PAGE LEFT BLANK ON PURPOSE

THIS PAGE LEFT BLANK ON PURPOSE

Grade 8



BOSTON
COLLEGE

timss.bc.edu



© IEA, 2018
International Association
for the Evaluation of
Educational Achievement

**IEA
TIMSS
2019**

Place Label Here

TRENDS IN INTERNATIONAL MATHEMATICS AND SCIENCE STUDY

--	--	--	--	--	--	--	--	--	--	--

Student ID

--

Participation Status

Student Questionnaire

Grade 8

National Center for Education Statistics
U.S. Department of Education
Potomac Center Plaza (PCP), 550 12th St., SW, 4th floor
Washington, DC 20202
USA

The National Center for Education Statistics (NCES), within the U.S. Department of Education, conducts TIMSS in the United States as authorized by the Education Sciences Reform Act of 2002 (ESRA 2002, 20 U.S.C., §9543). All of the information you provide may be used only for statistical purposes and may not be disclosed, or used, in identifiable form for any other purpose except as required by law (20 U.S.C., §9573 and 6 U.S.C. §151).

According to the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless such collection displays a valid OMB control number. The valid OMB control number for this voluntary information collection is 1850-0695. The time required to complete this information collection is estimated to average 30 minutes per student, including the time to review instructions and complete and review the information collection. If you have any comments or concerns regarding the accuracy of the time estimate(s), suggestions for improving the form, or questions about the status of your individual submission of this form, write directly to: Trends in International Mathematics and Science Study (TIMSS), National Center for Education Statistics, Potomac Center Plaza (PCP), 550 12th St., SW, 4th floor, Washington, DC 20202.

OMB No. 1850-0695, Approval Expires 01/31/2021.

© IEA, 2018
200301-001:321 Printed in the USA by Pearson ISD19885

**TIMSS & PIRLS
International Study Center
Lynch School of Education
BOSTON COLLEGE**

Directions

In this booklet, you will find questions about yourself. Some questions ask for facts while other questions ask for your opinion.

Each question is followed by a number of answers. Fill in the oval next to or under the answer of your choice as shown in Examples 1, 2, and 3.

Example 1

Do you go to school?

Fill in **one** oval only.

Yes --

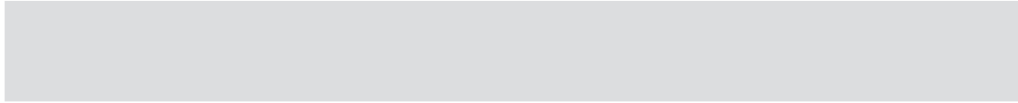
No --

Example 2

How often do you do these things?

Fill in only **one** oval for each row.

	Every day or almost every day	Once or twice a week	Once or twice a month	Never or almost never
	↓	↓	↓	↓
a) I talk with my friends	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b) I play sports	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
c) I ride a skateboard	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>



Example 3

What do you think? Tell how much you agree with these statements.

Fill in only **one** oval for each row.

	Agree a lot	Agree a little	Disagree a little	Disagree a lot
	↓	↓	↓	↓
a) Watching movies is fun	Ⓐ	●	Ⓒ	Ⓓ
b) I like eating ice cream	●	Ⓐ	Ⓒ	Ⓓ
c) I do not like waking up early	Ⓐ	Ⓐ	●	Ⓓ
d) I enjoy doing chores	Ⓐ	Ⓐ	Ⓒ	●

- Read each question carefully, and pick the answer you think is best.
- Fill in the oval next to or under your answer.
- If you decide to change your answer, completely erase your first choice. Then, fill in the oval next to or under your new answer.
- Ask for help if you do not understand something or are not sure how to answer.

About You

1 _____

A. Are you a girl or a boy?

*Fill in **one** oval only.*

Girl --

Boy --

B. Are you Hispanic or Latino?

*Fill in **one** oval only.*

Yes, I am Hispanic or Latino --

No, I am not Hispanic or Latino --

C. Which of the following best describes you?

*Fill in oval(s) for **all** that apply.*

White --

Black or African American --

Asian --

American Indian or Alaska Native --

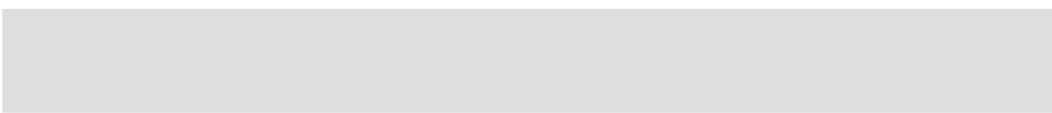
Native Hawaiian or other
Pacific Islander --

2

When were you born?

Fill in the ovals next to the month and year you were born.

- | a) Month | b) Year |
|-----------------|----------------|
| January --- Ⓐ | 2001 --- ① |
| February --- Ⓑ | 2002 --- ② |
| March --- Ⓒ | 2003 --- ③ |
| April --- Ⓓ | 2004 --- ④ |
| May --- Ⓔ | 2005 --- ⑤ |
| June --- Ⓕ | 2006 --- ⑥ |
| July --- Ⓖ | 2007 --- ⑦ |
| August --- Ⓗ | 2008 --- ⑧ |
| September --- Ⓘ | 2009 --- ⑨ |
| October --- Ⓣ | Other --- ⑩ |
| November --- Ⓚ | |
| December --- Ⓛ | |



3

A. How often do you speak English at home?

*Fill in **one** oval only.*

Always -- ① *If **Always**, please go to question 4* →

Almost always -- ②

Sometimes -- ③

Never -- ④

*If **Almost always, Sometimes, Never**,
please go to question 3B* ↘

B. What language do you speak at home (other than English)?

*Fill in **one** oval only.*

Spanish -- ①

Other -- ② Please specify _____

4

About how many books are there in your home? (Do not count magazines, newspapers, or your school books.)

*Fill in **one** oval only.*

- None or very few
(0–10 books) -- ①
- Enough to fill one shelf
(11–25 books) -- ②
- Enough to fill one bookcase
(26–100 books) -- ③
- Enough to fill two bookcases
(101–200 books) -- ④
- Enough to fill three or more bookcases
(more than 200) -- ⑤

5

Do you have any of these things at your home?

*Fill in only **one** oval for each row.*

- | | Yes | No |
|--|-----|----|
| | ↓ | ↓ |
| a) A computer or tablet | ① | ② |
| b) Study desk/table for your use | ① | ② |
| c) Your own room | ① | ② |
| d) Internet connection | ① | ② |
| e) Your own cell phone | ① | ② |
| f) A gaming system (e.g., PlayStation,
Wii, Xbox) | ① | ② |
| g) VCR, DVD, or Blu-ray player | ① | ② |

The following questions are about your Parent/Guardian A and Parent/Guardian B. If you have only one parent/guardian, answer for Parent/Guardian A. If you have two parents/guardians, choose one for Parent/Guardian A and the other for Parent/Guardian B.

6

What is the highest level of education completed by your parents/guardians?

A. Parent/Guardian A

*Fill in **one** oval only.*

- Less than high school -- ①
- Some high school -- ②
- High school graduate -- ③
- Associate's degree (2-year college program) -- ④
- Bachelor's degree (4-year college program) -- ⑤
- Master's degree or professional degree (MD, DDS, lawyer, minister) -- ⑥
- Doctorate (Ph.D., or Ed.D.) -- ⑦
- I don't know -- ⑧
- Not applicable -- ⑨

6 (continued)

What is the highest level of education completed by your parents/guardians?

B. Parent/Guardian B

*Fill in **one** oval only.*

- Less than high school -- ①
- Some high school -- ②
- High school graduate -- ③
- Associate's degree (2-year college program) -- ④
- Bachelor's degree (4-year college program) -- ⑤
- Master's degree or professional degree (MD, DDS, lawyer, minister) -- ⑥
- Doctorate (Ph.D., or Ed.D.) -- ⑦
- I don't know -- ⑧
- Not applicable -- ⑨

7

How far in your education do you expect to go?

Fill in one oval only.

Finish middle school -- ①

Finish high school -- ②

Finish Associate's degree
(2-year college program) -- ③

Finish Bachelor's degree
(4-year college program) -- ④

Finish Master's degree or
professional degree (MD,
DDS, lawyer, minister) -- ⑤

Finish Doctorate (Ph.D., Ed.D.) -- ⑥

8

Were your parents/guardians born in the United States? (“United States” includes the 50 states, its territories, the District of Columbia, and U.S. military bases abroad.)

A. Parent/Guardian A

Fill in one oval only.

Yes -- ①

No -- ②

I don't know -- ③

Not applicable -- ④

B. Parent/Guardian B

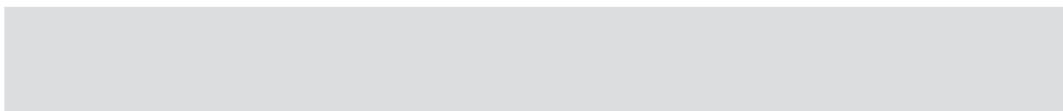
Fill in one oval only.

Yes -- ①

No -- ②

I don't know -- ③

Not applicable -- ④



9 _____

A. Were you born in the United States?

Fill in one oval only.

Yes -- ① 

(If Yes, go to question 10)

No -- ②

If No,

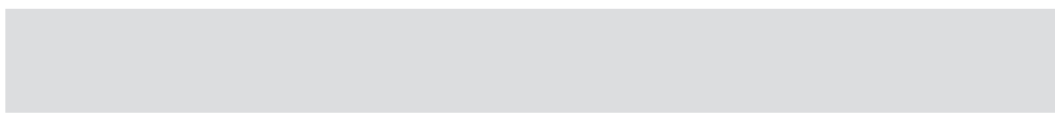
B. If you were not born in the United States, how old were you when you came to the United States?

Fill in one oval only.

Older than 10 years old -- ①

5 to 10 years old -- ②

Younger than 5 years old -- ③



10

The following questions ask about activities you do outside of school.

Fill in only **one** oval for each row.

- | | Yes
↓ | No
↓ |
|---|----------|---------|
| a) Do you play on a sports team outside of school? | ① | ② |
| b) Do you often play a musical instrument outside of school? | ① | ② |
| c) Are you studying something in a class outside of school? | ① | ② |
| d) Do you belong to a club outside of school (like Boy/Girl Scouts, 4-H, or Boys and Girls Club)? | ① | ② |

11

In this school year, are you preparing for or have you participated in any of the following activities?

Fill in only **one** oval for each row.

- | | Yes
↓ | No
↓ |
|------------------------------|----------|---------|
| a) Science fair | ① | ② |
| b) Science club | ① | ② |
| c) Science competition | ① | ② |



12 _____

A. About how often are you absent from school?

Fill in **one** oval only.

- Once a week -- ①
- Once every two weeks -- ②
- Once a month -- ③
- Once every two months -- ④
- Never or almost never -- ⑤

B. How many days were you absent from school in the last month?

Fill in **one** oval only.

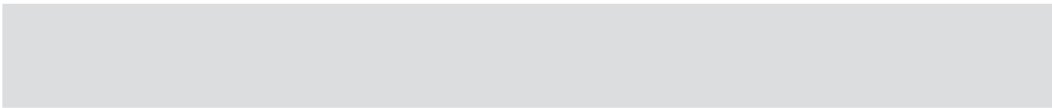
- None -- ①
- 1 or 2 days -- ②
- 3 or 4 days -- ③
- 5 to 10 days -- ④
- More than 10 days -- ⑤

13 _____

Have you ever repeated a grade?

Fill in **only one** oval for each row.

- | | Yes | | No |
|--|-----|-------|----|
| | ↓ | | ↓ |
| a) In elementary school ----- | ① | _____ | ② |
| b) In middle or junior high school ----- | ① | _____ | ② |



14

How often do you feel this way when you arrive at school?

Fill in only **one** oval for each row.

- | | Every
day
↓ | Almost
every day
↓ | Sometimes
↓ | Never
↓ |
|------------------------|-------------------|--------------------------|----------------|------------|
| a) I feel tired | ① | ② | ③ | ④ |
| b) I feel hungry | ① | ② | ③ | ④ |

15

Do you use the Internet to do any of the following tasks for schoolwork (including classroom tasks, homework, studying outside of class)?

Fill in only **one** oval for each row.

- | | Yes
↓ | No
↓ |
|--|----------|---------|
| a) Access the textbook or other course materials | ① | ② |
| b) Access assignments posted online by my teacher | ① | ② |
| c) Collaborate with classmates on assignments or projects | ① | ② |
| d) Communicate with the teacher | ① | ② |
| e) Find information, articles, or tutorials to aid in understanding mathematics or science | ① | ② |
| f) Access learning games or activities related to mathematics or science .. | ① | ② |

Your School

16

What do you think about your school? Tell how much you agree with these statements.

Fill in only **one** oval for each row.

	Agree a lot	Agree a little	Disagree a little	Disagree a lot
a) I like being in school	Ⓐ	Ⓑ	Ⓒ	Ⓓ
b) I feel safe when I am at school	Ⓐ	Ⓑ	Ⓒ	Ⓓ
c) I feel like I belong at this school	Ⓐ	Ⓑ	Ⓒ	Ⓓ
d) Teachers at my school are fair to me	Ⓐ	Ⓑ	Ⓒ	Ⓓ
e) I am proud to go to this school	Ⓐ	Ⓑ	Ⓒ	Ⓓ

17

During this school year, how often have other students from your school done any of the following things to you (including through texting or social media)?

Fill in only **one** oval for each row.

	At least once a week	Once or twice a month	A few times a year	Never
a) Said mean things about my physical appearance (e.g., my hair, my size)	①	②	③	④
b) Spread lies about me	①	②	③	④
c) Shared my secrets with others	①	②	③	④
d) Refused to talk to me	①	②	③	④
e) Insulted a member of my family ...	①	②	③	④
f) Stole something from me	①	②	③	④
g) Made me do things I didn't want to do	①	②	③	④
h) Sent me nasty or hurtful messages online	①	②	③	④
i) Shared nasty or hurtful things about me online	①	②	③	④
j) Shared embarrassing photos of me	①	②	③	④
k) Threatened me	①	②	③	④
l) Physically hurt me	①	②	③	④
m) Excluded me from their group (e.g., parties, messaging)	①	②	③	④
n) Damaged something of mine on purpose	①	②	③	④

Mathematics in School

18

In mathematics lessons, how often do you work problems on your own?

*Fill in **one** oval only.*

Every or almost every lesson-- ①

About half the lessons-- ②

Some lessons-- ③

Never-- ④

19

How much do you agree with these statements about learning mathematics?

Fill in only one oval for each row.

	Agree a lot	Agree a little	Disagree a little	Disagree a lot
a) I enjoy learning mathematics -----	Ⓐ	Ⓑ	Ⓒ	Ⓓ
b) I wish I did not have to study mathematics -----	Ⓐ	Ⓑ	Ⓒ	Ⓓ
c) Mathematics is boring -----	Ⓐ	Ⓑ	Ⓒ	Ⓓ
d) I learn many interesting things in mathematics -----	Ⓐ	Ⓑ	Ⓒ	Ⓓ
e) I like mathematics -----	Ⓐ	Ⓑ	Ⓒ	Ⓓ
f) I like any schoolwork that involves numbers -----	Ⓐ	Ⓑ	Ⓒ	Ⓓ
g) I like to solve mathematics problems -----	Ⓐ	Ⓑ	Ⓒ	Ⓓ
h) I look forward to mathematics class -----	Ⓐ	Ⓑ	Ⓒ	Ⓓ
i) Mathematics is one of my favorite subjects -----	Ⓐ	Ⓑ	Ⓒ	Ⓓ

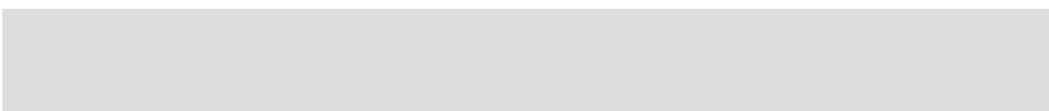


20

How much do you agree with these statements about your mathematics lessons?

Fill in only **one** oval for each row.

- | | Agree
a lot | Agree
a little | Disagree
a little | Disagree
a lot |
|---|----------------|-------------------|----------------------|-------------------|
| a) I know what my teacher expects me to do | ↓
① | ↓
② | ↓
③ | ↓
④ |
| b) My teacher is easy to understand .. | ① | ② | ③ | ④ |
| c) My teacher has clear answers to my questions | ① | ② | ③ | ④ |
| d) My teacher is good at explaining mathematics | ① | ② | ③ | ④ |
| e) My teacher does a variety of things to help us learn | ① | ② | ③ | ④ |
| f) My teacher links new lessons to what I already know | ① | ② | ③ | ④ |
| g) My teacher explains a topic again when we don't understand | ① | ② | ③ | ④ |

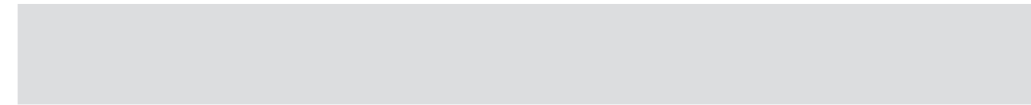


21

How often do these things happen in your mathematics lessons?

Fill in only one oval for each row.

	Every or almost every lesson	About half the lessons	Some lessons	Never
a) Students don't listen to what the teacher says	↓ ①	↓ ②	↓ ③	↓ ④
b) There is disruptive noise	①	②	③	④
c) It is too disorderly for students to work well	①	②	③	④
d) My teacher has to wait a long time for students to quiet down	①	②	③	④
e) Students interrupt the teacher	①	②	③	④
f) My teacher has to keep telling us to follow the classroom rules	①	②	③	④



22

How much do you agree with these statements about mathematics?

*Fill in only **one** oval for each row.*

	Agree a lot	Agree a little	Disagree a little	Disagree a lot
a) I usually do well in mathematics ---	Ⓐ	Ⓑ	Ⓒ	Ⓓ
b) Mathematics is more difficult for me than for many of my classmates -----	Ⓐ	Ⓑ	Ⓒ	Ⓓ
c) Mathematics is not one of my strengths -----	Ⓐ	Ⓑ	Ⓒ	Ⓓ
d) I learn things quickly in mathematics -----	Ⓐ	Ⓑ	Ⓒ	Ⓓ
e) Mathematics makes me nervous -----	Ⓐ	Ⓑ	Ⓒ	Ⓓ
f) I am good at working out difficult mathematics problems -----	Ⓐ	Ⓑ	Ⓒ	Ⓓ
g) My teacher tells me I am good at mathematics -----	Ⓐ	Ⓑ	Ⓒ	Ⓓ
h) Mathematics is harder for me than any other subject -----	Ⓐ	Ⓑ	Ⓒ	Ⓓ
i) Mathematics makes me confused -----	Ⓐ	Ⓑ	Ⓒ	Ⓓ

23

How much do you agree with these statements about mathematics?

Fill in only **one** oval for each row.

- | | Agree
a lot | Agree
a little | Disagree
a little | Disagree
a lot |
|--|----------------|-------------------|----------------------|-------------------|
| a) I think learning mathematics will help me in my daily life | ① | ② | ③ | ④ |
| b) I need mathematics to learn other school subjects | ① | ② | ③ | ④ |
| c) I need to do well in mathematics to get into the college or university of my choice | ① | ② | ③ | ④ |
| d) I need to do well in mathematics to get the job I want | ① | ② | ③ | ④ |
| e) I would like a job that involves using mathematics | ① | ② | ③ | ④ |
| f) It is important to learn about mathematics to get ahead in the world | ① | ② | ③ | ④ |
| g) Learning mathematics will give me more job opportunities when I am an adult | ① | ② | ③ | ④ |
| h) My parents think that it is important that I do well in mathematics | ① | ② | ③ | ④ |
| i) It is important to do well in mathematics | ① | ② | ③ | ④ |

Science in School

24

In science lessons, how often does your teacher ask you to conduct science experiments?

*Fill in **one** oval only.*

- At least once a week -- ①
- Once or twice a month -- ②
- A few times a year -- ③
- Never -- ④

25

How much do you agree with these statements about learning science?

Fill in only one oval for each row.

	Agree a lot	Agree a little	Disagree a little	Disagree a lot
a) I enjoy learning science	Ⓐ	Ⓑ	Ⓒ	Ⓓ
b) I wish I did not have to study science	Ⓐ	Ⓑ	Ⓒ	Ⓓ
c) Science is boring	Ⓐ	Ⓑ	Ⓒ	Ⓓ
d) I learn many interesting things in science	Ⓐ	Ⓑ	Ⓒ	Ⓓ
e) I like science	Ⓐ	Ⓑ	Ⓒ	Ⓓ
f) I look forward to learning science in school	Ⓐ	Ⓑ	Ⓒ	Ⓓ
g) Science teaches me how things in the world work	Ⓐ	Ⓑ	Ⓒ	Ⓓ
h) I like to conduct science experiments	Ⓐ	Ⓑ	Ⓒ	Ⓓ
i) Science is one of my favorite subjects	Ⓐ	Ⓑ	Ⓒ	Ⓓ

26

How much do you agree with these statements about your science lessons?

*Fill in only **one** oval for each row.*

	Agree a lot	Agree a little	Disagree a little	Disagree a lot
a) I know what my teacher expects me to do	Ⓐ	Ⓑ	Ⓒ	Ⓓ
b) My teacher is easy to understand ..	Ⓐ	Ⓑ	Ⓒ	Ⓓ
c) My teacher has clear answers to my questions	Ⓐ	Ⓑ	Ⓒ	Ⓓ
d) My teacher is good at explaining science	Ⓐ	Ⓑ	Ⓒ	Ⓓ
e) My teacher does a variety of things to help us learn	Ⓐ	Ⓑ	Ⓒ	Ⓓ
f) My teacher links new lessons to what I already know	Ⓐ	Ⓑ	Ⓒ	Ⓓ
g) My teacher explains a topic again when we don't understand ..	Ⓐ	Ⓑ	Ⓒ	Ⓓ

27

How much do you agree with these statements about science?

Fill in only one oval for each row.

	Agree a lot	Agree a little	Disagree a little	Disagree a lot
a) I usually do well in science	Ⓐ	Ⓑ	Ⓒ	Ⓓ
b) Science is more difficult for me than for many of my classmates ----	Ⓐ	Ⓑ	Ⓒ	Ⓓ
c) Science is not one of my strengths	Ⓐ	Ⓑ	Ⓒ	Ⓓ
d) I learn things quickly in science	Ⓐ	Ⓑ	Ⓒ	Ⓓ
e) I am good at working out difficult science problems	Ⓐ	Ⓑ	Ⓒ	Ⓓ
f) My teacher tells me I am good at science	Ⓐ	Ⓑ	Ⓒ	Ⓓ
g) Science is harder for me than any other subject	Ⓐ	Ⓑ	Ⓒ	Ⓓ
h) Science makes me confused	Ⓐ	Ⓑ	Ⓒ	Ⓓ

28

How much do you agree with these statements about science?

*Fill in only **one** oval for each row.*

	Agree a lot	Agree a little	Disagree a little	Disagree a lot
a) I think learning science will help me in my daily life	①	②	③	④
b) I need science to learn other school subjects	①	②	③	④
c) I need to do well in science to get into the college or university of my choice	①	②	③	④
d) I need to do well in science to get the job I want	①	②	③	④
e) I would like a job that involves using science	①	②	③	④
f) It is important to learn about science to get ahead in the world	①	②	③	④
g) Learning science will give me more job opportunities when I am an adult	①	②	③	④
h) My parents think that it is important that I do well in science	①	②	③	④
i) It is important to do well in science	①	②	③	④

Homework

29

A. How often does your teacher give you homework in the following subjects?

Fill in only one oval for each row.

	Every day	3 or 4 times a week	1 or 2 times a week	Less than once a week	Never
a) Mathematics	①	②	③	④	⑤
b) Science	①	②	③	④	⑤

B. When your teacher gives you homework in the following subjects, about how many minutes do you usually spend on your homework?

Fill in only one oval for each row.

	My teacher never gives me homework in...	1-15 minutes	16-30 minutes	31-60 minutes	61-90 minutes	More than 90 minutes
a) Mathematics --	①	②	③	④	⑤	⑥
b) Science	①	②	③	④	⑤	⑥

30

A. During the last 12 months, have you attended extra lessons or tutoring not provided by the school in the following subjects?

*Fill in only **one** oval for each row.*

	Yes, to excel in class	Yes, to keep up in class	No
	↓	↓	↓
a) Mathematics	①	②	③
b) Science	①	②	③

B. For how many of the last 12 months have you attended extra lessons or tutoring?

*Fill in only **one** oval for each row.*

	Did not attend	Less than 4 months	4-8 months	More than 8 months
	↓	↓	↓	↓
a) Mathematics	①	②	③	④
b) Science	①	②	③	④

31

How hard was this test compared to most other tests you have taken this year in school?

Fill in one oval only.

- Easier than other tests -- ①
- About as hard as other tests -- ②
- Harder than other tests -- ③
- Much harder than other tests -- ④

32

How hard did you try on this test compared to how hard you tried on most other tests you have taken this year in school?

Fill in one oval only.

- Not as hard as on other tests -- ①
- About as hard as on other tests -- ②
- Harder than on other tests -- ③
- Much harder than on other tests -- ④

33

How important was it to you to do well on this test?

Fill in one oval only.

- Not very important -- ①
- Somewhat important -- ②
- Important -- ③
- Very important -- ④



Grade 8

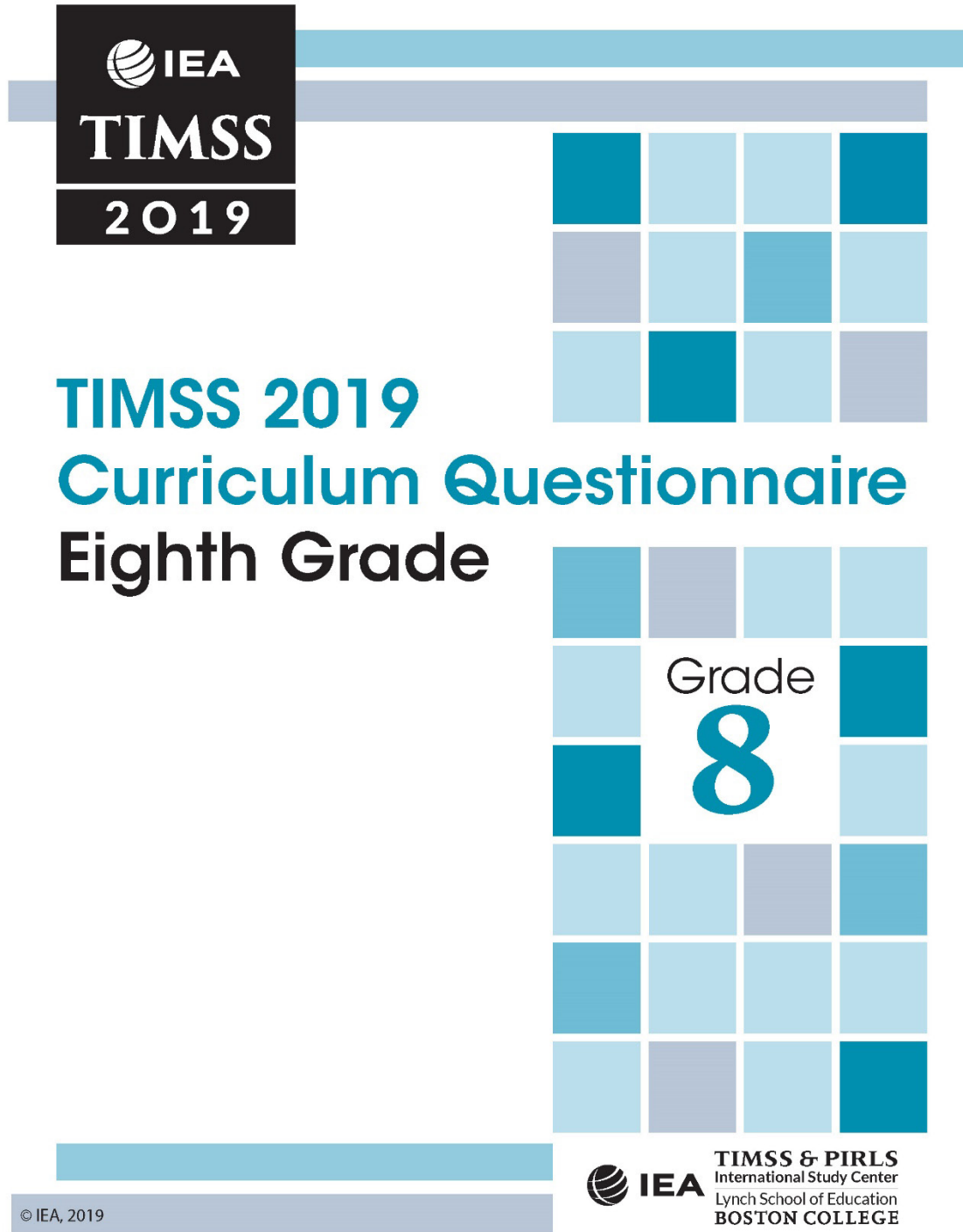


BOSTON
COLLEGE

timss.bc.edu



© IEA, 2018
International Association
for the Evaluation of
Educational Achievement



The graphic features a black box in the top left with the IEA logo and the text 'TIMSS 2019'. To the right is a decorative grid of colored squares. The main title 'TIMSS 2019 Curriculum Questionnaire Eighth Grade' is centered in large blue and black text. Below the title is another grid with 'Grade 8' in the center. At the bottom left is a copyright notice '© IEA, 2019' and at the bottom right is the IEA logo and the text 'TIMSS & PIRLS International Study Center Lynch School of Education BOSTON COLLEGE'.

IEA
TIMSS
2019

TIMSS 2019
Curriculum Questionnaire
Eighth Grade

Grade
8

© IEA, 2019

IEA
TIMSS & PIRLS
International Study Center
Lynch School of Education
BOSTON COLLEGE

Source: [TIMSS 2019 Grade 8 Curriculum Questionnaire](#)

TIMSS2019DC_OCQ - English
You are not logged in.

Welcome to the IEA SurveySystem

TIMSS 2019 Curriculum Questionnaire

Please enter your user ID and password (Checksum).

User ID:

Password:

© IEA Online SurveySystem 2019 - Help

Source: [TIMSS 2019 Grade 8 Curriculum Questionnaire](#)

Exhibit D-9. TIMSS 2019 Grade 8 Curriculum Questionnaire—Continued

**IEA
TIMSS
2019**

TIMSS - 2019 - English
You are logged in as: 9996 [Logout](#)

TIMSS 2019 Curriculum Questionnaire – Eighth Grade

TIMSS 2019 Curriculum Questionnaire – Eighth Grade

The TIMSS 2019 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 **October 30, 2019**.

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." When you have completed the questionnaire, please make sure to click the "Submit" button to submit your answers.

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 2019 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 Hamburg (TIMSS email account): timss@iea-hamburg.de

[Table of Contents](#)

© IEA Online SurveySystem 2019 - [Help](#)

Source: [TIMSS 2019 Grade 8 Curriculum Questionnaire](#)

Exhibit D-9. TIMSS 2019 Grade 8 Curriculum Questionnaire—Continued

IEA
TIMSS
2019

TIMSS - 2019 - English
You are logged in as: 9996 [Logout](#)

TIMSS 2019 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](#) 1/38 [Table of Contents](#) [Next](#)

© IEA Online SurveySystem 2019 - Help

Source: [TIMSS 2019 Grade 8 Curriculum Questionnaire](#)

Exhibit D-9. TIMSS 2019 Grade 8 Curriculum Questionnaire—Continued

IEA
TIMSS
2019

TIMSS - 2019 - English
You are logged in as: 9996 [Logout](#)

TIMSS 2019 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 2019, in English (e.g., grade 4, grade 8)?

Previous 2/38 [Table of Contents](#) Next

© IEA Online SurveySystem 2019 - Help

Source: [TIMSS 2019 Grade 8 Curriculum Questionnaire](#)

TIMSS - 2019 - English
You are logged in as: 9996 [Logout](#)

TIMSS 2019 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](#) 3/38 [Table of Contents](#) [Next](#)

© IEA Online SurveySystem 2019 - [Help](#)

Source: [TIMSS 2019 Grade 8 Curriculum Questionnaire](#)

Exhibit D-9. TIMSS 2019 Grade 8 Curriculum Questionnaire—Continued

IEA
TIMSS
2019

TIMSS - 2019 - English
You are logged in as: 9996 [Logout](#)

TIMSS 2019 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 what is the status of implementation?

[Previous](#) 4/38 [Table of Contents](#) [Next](#)

© IEA Online SurveySystem 2019 - [Help](#)

Source: [TIMSS 2019 Grade 8 Curriculum Questionnaire](#)

Exhibit D-9. TIMSS 2019 Grade 8 Curriculum Questionnaire—Continued

TIMSS - 2019 - English
You are logged in as: 9996 [Logout](#)

TIMSS 2019 Curriculum Questionnaire – Eighth Grade - Grade Structure and Student Flow

G4. What are the ages (or grades) of compulsory education in your country?
Example: "Ages 6-16 (or Grades 1-9)."

Previous 5/38 [Table of Contents](#) Next

© IEA Online SurveySystem 2019 - Help

Source: [TIMSS 2019 Grade 8 Curriculum Questionnaire](#)

Exhibit D-9. TIMSS 2019 Grade 8 Curriculum Questionnaire—Continued

IEA
TIMSS
2019

TIMSS - 2019 - English
You are logged in as: 9996 [Logout](#)

TIMSS 2019 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 6/38 [Table of Contents](#) Next

© IEA Online SurveySystem 2019 - [Help](#)

Source: [TIMSS 2019 Grade 8 Curriculum Questionnaire](#)

TIMSS - 2019 - English
You are logged in as: 9996 [Logout](#)

TIMSS 2019 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](#) 7/38 [Table of Contents](#) [Next](#)

© IEA Online SurveySystem 2019 - [Help](#)

Source: [TIMSS 2019 Grade 8 Curriculum Questionnaire](#)

Exhibit D-9. TIMSS 2019 Grade 8 Curriculum Questionnaire—Continued

IEA
TIMSS
2019

TIMSS - 2019 - English
You are logged in as: 9996 [Logout](#)

TIMSS 2019 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](#) 8/38 [Table of Contents](#) [Next](#)

© IEA Online SurveySystem 2019 - Help

Source: [TIMSS 2019 Grade 8 Curriculum Questionnaire](#)

TIMSS - 2019 - English
You are logged in as: 9996 [Logout](#)

TIMSS 2019 Curriculum Questionnaire – Eighth Grade - Languages of Instruction

Languages of Instruction


G8. A. State the official language(s) and describe the major language subgroups.

B. Describe the languages of instruction for mathematics and science in the fourth and eighth grades. For example, is the instruction in these grades for these subjects presented to the students in their native language or in a second language?

Previous 9/38 [Table of Contents](#) Next

© IEA Online SurveySystem 2019 - Help

Source: [TIMSS 2019 Grade 8 Curriculum Questionnaire](#)



TIMSS - 2019 - English
 You are logged in as: 9996 [Logout](#)

TIMSS 2019 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 age 3; and
- **Pre-primary education (PPE)** programs including Kindergarten for children age 3 or older.

G9. 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 age 3	<input type="radio"/>	<input type="radio"/>
b) PPE programs for children age 3 or older	<input type="radio"/>	<input type="radio"/>

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:

[Previous](#)
10/38 [Table of Contents](#)
[Next](#)

© IEA Online SurveySystem 2019 - Help (Continued on Next Page)

TIMSS - 2019 - English (Continued)
 You are logged in as: 9996 [Logout](#)

TIMSS 2019 Curriculum Questionnaire – Eighth Grade - Early Childhood Education

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 for each line.*

	Yes	No
a) ECED programs for children under age 3	<input type="radio"/>	<input type="radio"/>
b) PPE programs for children age 3 or older	<input type="radio"/>	<input type="radio"/>

Please describe:

[Previous](#)
10/38 [Table of Contents](#)
[Next](#)

© IEA Online SurveySystem 2019 - Help

Source: [TIMSS 2019 Grade 8 Curriculum Questionnaire](#)

Exhibit D-9. TIMSS 2019 Grade 8 Curriculum Questionnaire—Continued

IEA
TIMSS
2019

TIMSS - 2019 - English
You are logged in as: 9997 Logout

TIMSS 2019 Curriculum Questionnaire – Eighth Grade - Early Childhood Education

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

G10. A. Does your country have national curriculum guidance documents for ECED or PPE programs?

Check one circle for each line.

	Yes	No
a) ECED programs for children under age 3	<input type="radio"/>	<input type="radio"/>
b) PPE programs for children age 3 or older	<input type="radio"/>	<input type="radio"/>

Previous 11/38 [Table of Contents](#) Next

© IEA Online SurveySystem 2019 - Help (Continued on Next Page)

Source: [TIMSS 2019 Grade 8 Curriculum Questionnaire](#)

TIMSS - 2019 - English (Continued)
 You are logged in as: 9997 [Logout](#)

TIMSS 2019 Curriculum Questionnaire – Eighth Grade - Early Childhood Education

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	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b) Physical development and health education	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c) Oral language development and communication skills	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
d) Reading and literacy skills	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
e) Mathematics and numeracy skills	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
f) Science including understanding the natural world (e.g., weather)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
g) Other Please specify below:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Comments:

11/38 [Table of Contents](#)

© IEA Online SurveySystem 2019 - Help

Source: [TIMSS 2019 Grade 8 Curriculum Questionnaire](#)

IEA
TIMSS
2019

TIMSS - 2019 - English
You are logged in as: 9996 [Logout](#)

TIMSS 2019 Curriculum Questionnaire – Eighth Grade - Examinations

Examinations

G11. 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](#) 12/38 [Table of Contents](#) [Next](#)

© IEA Online SurveySystem 2019 - Help

Source: [TIMSS 2019 Grade 8 Curriculum Questionnaire](#)

TIMSS - 2019 - English
You are logged in as: 9996 Logout

TIMSS 2019 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."

Previous 13/38 [Table of Contents](#) Next

© IEA Online SurveySystem 2019 - Help (Continued on Next Page)

Source: [TIMSS 2019 Grade 8 Curriculum Questionnaire](#)

Exhibit D-9. TIMSS 2019 Grade 8 Curriculum Questionnaire—Continued



(Continued)

TIMSS - 2019 - English
 You are logged in as: 9996 [Logout](#)

TIMSS 2019 Curriculum Questionnaire – Eighth Grade - Teacher Preparation

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.	<input type="radio"/>	<input type="radio"/>
If Yes... How long is this period?	<input style="width: 100%;" type="text"/>	
b) Passing a qualifying examination (e.g., licensing, certification).	<input type="radio"/>	<input type="radio"/>
c) Completion of a probationary teaching period.	<input type="radio"/>	<input type="radio"/>
If Yes... How long is this period?	<input style="width: 100%;" type="text"/>	
d) Completion of a mentoring or induction program (e.g., experienced teachers work with novice teachers to provide instructional guidance).	<input type="radio"/>	<input type="radio"/>
e) Other Please specify below:	<input type="radio"/>	<input type="radio"/>
<div style="border: 1px solid #ccc; width: 100%; height: 100%;"></div>		

[Previous](#)
13/38 [Table of Contents](#)
[Next](#)

© IEA Online SurveySystem 2019 - Help (Continued on Next Page)

Source: [TIMSS 2019 Grade 8 Curriculum Questionnaire](#)

TIMSS - 2019 - English (Continued)
You are logged in as: 9996 Logout

TIMSS 2019 Curriculum Questionnaire – Eighth Grade - Teacher Preparation

C. Are there additional requirements for teachers of mathematics and science in the fourth grade?

Check *one* circle only.

Yes
 No

If Yes...
D. What are they?

E. In the last 10 years, has there been a change in the stated official policy about the requirements for being a teacher of students in the fourth grade?

Check *one* circle only.

Yes
 No

If Yes....
F. How did the policy change, and what is the status of implementation?

Example: "A master's degree will be required in 2020; an oral examination has been required since 2018."

Previous 13/38 [Table of Contents](#) Next

© IEA Online SurveySystem 2019 - Help

Source: [TIMSS 2019 Grade 8 Curriculum Questionnaire](#)

Exhibit D-9. TIMSS 2019 Grade 8 Curriculum Questionnaire—Continued

IEA
TIMSS
2019

TIMSS - 2019 - English
You are logged in as: 9996 [Logout](#)

TIMSS 2019 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?

Previous 14/38 [Table of Contents](#) Next

© IEA Online SurveySystem 2019 - Help (Continued on Next Page)

Source: [TIMSS 2019 Grade 8 Curriculum Questionnaire](#)

TIMSS - 2019 - English (Continued)
 You are logged in as: 9996 [Logout](#)

TIMSS 2019 Curriculum Questionnaire – Eighth Grade - Teacher Preparation

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.	<input type="radio"/>	<input type="radio"/>
<i>If Yes...</i> How long is this period?	<input style="width: 150px;" type="text"/>	
b) Passing a qualifying examination (e.g., licensing, certification).	<input type="radio"/>	<input type="radio"/>
c) Completion of a probationary teaching period.	<input type="radio"/>	<input type="radio"/>
<i>If Yes...</i> How long is this period?	<input style="width: 150px;" type="text"/>	
d) Completion of a mentoring or induction program (e.g., experienced teachers work with novice teachers to provide instructional guidance).	<input type="radio"/>	<input type="radio"/>
e) Other Please specify below:	<input type="radio"/>	<input type="radio"/>

D. If there are additional requirements for teachers of mathematics and science in the eighth grade that are different than in the fourth grade, what are they?

14/38 [Table of Contents](#)

(Continued on Next Page)

Source: [TIMSS 2019 Grade 8 Curriculum Questionnaire](#)

Exhibit D-9. TIMSS 2019 Grade 8 Curriculum Questionnaire—Continued

IEA
TIMSS
2019

TIMSS - 2019 - English (Continued)
You are logged in as: 9996 Logout

TIMSS 2019 Curriculum Questionnaire – Eighth Grade - Teacher Preparation

E. In the last 10 years, has there been a change in the stated official policy about the requirements for being a teacher of students in the eighth grade?

Check one circle only.

Yes
 No

If Yes....
F. How did the policy change, and what is the status of implementation?

Previous 14/38 Table of Contents Next

© IEA Online SurveySystem 2019 - Help

Source: [TIMSS 2019 Grade 8 Curriculum Questionnaire](#)

TIMSS - 2019 - English
 You are logged in as: 9996 [Logout](#)

TIMSS 2019 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	<input type="radio"/>	<input type="radio"/>
b) Completion of a specialized school leadership training program (including a school leadership degree program)	<input type="radio"/>	<input type="radio"/>
c) Other Please specify below:	<input type="radio"/>	<input type="radio"/>

[Previous](#)
15/38 [Table of Contents](#)
[Next](#)

© IEA Online SurveySystem 2019 - Help (Continued on Next Page)

Source: [TIMSS 2019 Grade 8 Curriculum Questionnaire](#)

Exhibit D-9. TIMSS 2019 Grade 8 Curriculum Questionnaire—Continued

IEA
TIMSS
2019

TIMSS - 2019 - English
You are logged in as: 9996 Logout

(Continued)

TIMSS 2019 Curriculum Questionnaire – Eighth Grade - Principal Preparation

C. In the last 10 years, has there been a change in the stated official policy about the requirements for being a principal of a school with fourth grade students?

Check one circle only.

Yes
 No

If Yes....
D. How did the policy change, and what is the status of implementation?

Previous 15/38 [Table of Contents](#) Next

© IEA Online SurveySystem 2019 - Help

Source: [TIMSS 2019 Grade 8 Curriculum Questionnaire](#)

TIMSS - 2019 - English
 You are logged in as: 9996 [Logout](#)

TIMSS 2019 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 | <input type="radio"/> | <input type="radio"/> |
| b) Completion of a specialized school leadership training program (including a school leadership degree program) | <input type="radio"/> | <input type="radio"/> |
| c) Other
Please specify below: | <input type="radio"/> | <input type="radio"/> |

Previous
16/38 [Table of Contents](#)
Next

Source: [TIMSS 2019 Grade 8 Curriculum Questionnaire](#)

Exhibit D-9. TIMSS 2019 Grade 8 Curriculum Questionnaire—Continued

IEA
TIMSS
2019

TIMSS - 2019 - English (Continued)
You are logged in as: 9996 Logout

TIMSS 2019 Curriculum Questionnaire – Eighth Grade - Principal Preparation

D. In the last 10 years, has there been a change in the stated official policy about the requirements for being a principal of a school with eighth grade students?

Check **one** circle only.

Yes
 No

If Yes....
E. How did the policy change, and what is the status of implementation?

Previous 16/38 [Table of Contents](#) Next

© IEA Online SurveySystem 2019 - Help

Source: [TIMSS 2019 Grade 8 Curriculum Questionnaire](#)

Exhibit D-9. TIMSS 2019 Grade 8 Curriculum Questionnaire—Continued

**IEA
TIMSS
2019**

TIMSS - 2019 - English
You are logged in as: 9996 [Logout](#)

TIMSS 2019 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 2019—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](#) 17/38 [Table of Contents](#) [Next](#)

© IEA Online SurveySystem 2019 - Help

Source: [TIMSS 2019 Grade 8 Curriculum Questionnaire](#)

IEA
TIMSS
2019

TIMSS - 2019 - English
You are logged in as: 9996 [Logout](#)

TIMSS 2019 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 2019—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](#) 18/38 [Table of Contents](#) [Next](#)

© IEA Online SurveySystem 2019 - Help

Source: [TIMSS 2019 Grade 8 Curriculum Questionnaire](#)

Exhibit D-9. TIMSS 2019 Grade 8 Curriculum Questionnaire—Continued

TIMSS - 2019 - English
You are logged in as: 9996 [Logout](#)

TIMSS 2019 Curriculum Questionnaire – Eighth Grade - About the Eighth Grade Mathematics Curriculum

M2. A. In what year was the 2018/2019 mathematics curriculum introduced?


Comments (e.g., status of implementation):

[Previous](#) 19/38 [Table of Contents](#) [Next](#)

© IEA Online SurveySystem 2019 - Help (Continued on Next Page)

Source: [TIMSS 2019 Grade 8 Curriculum Questionnaire](#)

Exhibit D-9. TIMSS 2019 Grade 8 Curriculum Questionnaire—Continued



TIMSS - 2019 - English
You are logged in as: 9996 [Logout](#)

TIMSS 2019 Curriculum Questionnaire – Eighth Grade - About the Eighth Grade Mathematics Curriculum

B. Is the mathematics curriculum currently being revised?

Check *one* circle only.

Yes
 No

If Yes...
Please explain:

If No...
Comments:

[Previous](#) 19/38 [Table of Contents](#) [Next](#)

© IEA Online SurveySystem 2019 - Help

Source: [TIMSS 2019 Grade 8 Curriculum Questionnaire](#)

TIMSS - 2019 - English
You are logged in as: 9996 [Logout](#)

TIMSS 2019 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 2019—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.

M3. 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](#) 20/38 [Table of Contents](#) [Next](#)

Source: [TIMSS 2019 Grade 8 Curriculum Questionnaire](#)



TIMSS - 2019 - English
 You are logged in as: 9996 [Logout](#)

TIMSS 2019 Curriculum Questionnaire – Eighth Grade - Curriculum Specifications

M4. How is the mathematics curriculum implementation evaluated?

Check one circle for each line.

	Yes	No
a) Visits by inspectors	<input type="radio"/>	<input type="radio"/>
b) Research programs	<input type="radio"/>	<input type="radio"/>
c) School self-evaluation	<input type="radio"/>	<input type="radio"/>
d) National or regional examinations	<input type="radio"/>	<input type="radio"/>
e) Other	<input type="radio"/>	<input type="radio"/>
Please specify below:		

Comments:

Previous
21/38 [Table of Contents](#)
Next

© IEA Online SurveySystem 2019 - Help

IEA
TIMSS
2019

TIMSS - 2019 - English
You are logged in as: 9996 [Logout](#)

TIMSS 2019 Curriculum Questionnaire – Eighth Grade - Use of Digital Devices

Use of Digital Devices

This mathematics module refers to the national curriculum that was in effect for the eighth grade students assessed in TIMSS 2019—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.

M5. A. Does the national curriculum contain statements/policies about the use of digital devices (e.g., computers, tablets, calculators) in grade 8 mathematics instruction?

Check one circle only.

Yes
 No

If Yes...
What are the statements/policies?

[Previous](#) 22/38 [Table of Contents](#) [Next](#)

© IEA Online SurveySystem 2019 - Help (Continued on Next Page)

Source: [TIMSS 2019 Grade 8 Curriculum Questionnaire](#)

Exhibit D-9. TIMSS 2019 Grade 8 Curriculum Questionnaire—Continued

IEA
TIMSS
2019

TIMSS - 2019 - English
You are logged in as: 9996 Logout

(Continued)

TIMSS 2019 Curriculum Questionnaire – Eighth Grade - Use of Digital Devices

B. Does the national curriculum contain statements/policies about student use of digital devices (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 22/38 [Table of Contents](#) Next

© IEA Online SurveySystem 2019 - Help

Source: [TIMSS 2019 Grade 8 Curriculum Questionnaire](#)

The screenshot shows the TIMSS 2019 online survey interface. At the top right, there is a logo for IEA TIMSS 2019. The main content area is titled "TIMSS 2019 Curriculum Questionnaire – Eighth Grade - Specialist Mathematics Teachers". Below this, there is a section header "Specialist Mathematics Teachers" followed by the question: "M6. At what grade(s) are students first taught by mathematics subject specialists rather than general classroom teachers?". A large empty text box is provided for the answer. At the bottom of the question area, there are navigation buttons: "Previous", "23/38 Table of Contents", and "Next". The footer of the interface reads "© IEA Online SurveySystem 2019 - Help".

Source: [TIMSS 2019 Grade 8 Curriculum Questionnaire](#)



TIMSS - 2019 - English
 You are logged in as: 9996 [Logout](#)

TIMSS 2019 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 2019—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. (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 (b)], 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)												
	All or almost all students	Only the more able students	Not included in the curriculum through grade 8	Check the corresponding grade(s) for each topic.												
<i>Check one circle for each line.</i>																
A. Number				PP	G1	G2	G3	G4	G5	G6	G7	G8	G9	G10	G11	G12
a) Computing with negative numbers	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Concepts of fractions and decimals	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Solving problems involving proportions and percents	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Comments:

[Previous](#)
24/38 [Table of Contents](#)
[Next](#)

© IEA Online SurveySystem 2019 - Help

Source: [TIMSS 2019 Grade 8 Curriculum Questionnaire](#)

TIMSS - 2019 - English
 You are logged in as: 9996 [Logout](#)

TIMSS 2019 Curriculum Questionnaire – Eighth Grade - Eighth Grade Mathematics Topics Covered

M7. (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 (b)], 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.												
	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
B. Algebra																
a) Simplifying and evaluating algebraic expressions	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Simple linear equations	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Simple linear inequalities	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Simultaneous (two variables) equations	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) Representation of linear and quadratic functions in tables, graphs, words, or equations	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f) Properties of functions (slopes, intercepts, etc.)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g) Numeric, algebraic, and geometric patterns or sequences (extension, missing terms, generalization of patterns)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Comments:

Source: [TIMSS 2019 Grade 8 Curriculum Questionnaire](#)



TIMSS - 2019 - English
 You are logged in as: 9996 [Logout](#)

TIMSS 2019 Curriculum Questionnaire – Eighth Grade - Eighth Grade Mathematics Topics Covered

M7. (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 (b)], 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)												
	All or almost all students	Only the more able students	Not included in the curriculum through grade 8	Check the corresponding grade(s) for each topic.												
	Check one circle for each line.			Check the corresponding grade(s) for each topic.												
C. Geometry				PP	G1	G2	G3	G4	G5	G6	G7	G8	G9	G10	G11	G12
a) Geometric properties of angles, pairs of lines, and geometric shapes (triangles, quadrilaterals, and other common polygons)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Solving problems involving perimeters, circumferences, and areas	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Solving problems involving the Pythagorean Theorem	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Translation, reflection, and rotation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) Congruent figures and similar triangles	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f) Solving problems with three-dimensional shapes	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Comments:

TIMSS - 2019 - English
 You are logged in as: 9996 [Logout](#)

TIMSS 2019 Curriculum Questionnaire – Eighth Grade - Eighth Grade Mathematics Topics Covered

M7. (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 (b)], 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)																						
	All or almost all students	Only the more able students	Not included in the curriculum through grade 8	Check the corresponding grade(s) for each topic.																						
<i>Check one circle for each line.</i>														<i>Check the corresponding grade(s) for each topic.</i>												
D. Data and Probability				PP	G1	G2	G3	G4	G5	G6	G7	G8	G9	G10	G11	G12										
a) Reading and interpreting data from one or more sources to solve problems (interpolating, extrapolating, drawing conclusions)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>										
b) Identifying appropriate procedures for collecting data	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>										
c) Organizing and representing data to help answer questions	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>										
e) Calculating and interpreting statistics summarizing data distributions	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>										
e) Theoretical and empirical probability of simple events	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>										
f) Theoretical and empirical probability of compound events	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>										

Comments:

[Previous](#)
27/38 [Table of Contents](#)
[Next](#)

© IEA Online SurveySystem 2019 - Help

Source: [TIMSS 2019 Grade 8 Curriculum Questionnaire](#)

Exhibit D-9. TIMSS 2019 Grade 8 Curriculum Questionnaire—Continued

The screenshot shows the TIMSS 2019 Grade 8 Curriculum Questionnaire interface. At the top left, there is a logo for IEA TIMSS 2019. Below the logo, the text reads "TIMSS - 2019 - English" and "You are logged in as: 9996 Logout". The main heading is "TIMSS 2019 Curriculum Questionnaire - Eighth Grade - SCIENCE MODULE - GRADE 8". A central box contains the title "SCIENCE MODULE - GRADE 8" and a sub-heading "To be completed by all countries participating in TIMSS at the eighth grade". Below this, a paragraph explains: "This science module refers to the national curriculum that was in effect for the eighth grade students assessed in TIMSS 2019—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." At the bottom of the interface, there are three buttons: "Previous", "28/38 Table of Contents", and "Next". The footer of the interface reads "© IEA Online SurveySystem 2019 - Help".

Source: [TIMSS 2019 Grade 8 Curriculum Questionnaire](#)

TIMSS - 2019 - English
 You are logged in as: 9996 Logout

TIMSS 2019 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 2019—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](#)
29/38
[Table of Contents](#)
[Next](#)

© IEA Online SurveySystem 2019 - Help

Source: [TIMSS 2019 Grade 8 Curriculum Questionnaire](#)

Exhibit D-9. TIMSS 2019 Grade 8 Curriculum Questionnaire—Continued

IEA
TIMSS
2019

TIMSS - 2019 - English
You are logged in as: 9996 Logout

TIMSS 2019 Curriculum Questionnaire - Eighth Grade - About the Eighth Grade Science Curriculum

S2. A. In what year was the 2018/2019 science curriculum introduced?

Comments (e.g., status of implementation):

Previous 30/38 [Table of Contents](#) Next

© IEA Online SurveySystem 2019 - Help (Continued on Next Page)

Source: [TIMSS 2019 Grade 8 Curriculum Questionnaire](#)

TIMSS - 2019 - English (Continued)
You are logged in as: 9996 Logout

TIMSS 2019 Curriculum Questionnaire – Eighth Grade - About the Eighth Grade Science Curriculum

B. Is the science curriculum currently being revised?

Check **one** circle only.

Yes
 No


If Yes...
Please explain:

If No...
Comments:

[Previous](#) 30/38 [Table of Contents](#) [Next](#)

© IEA Online SurveySystem 2019 - Help

Source: [TIMSS 2019 Grade 8 Curriculum Questionnaire](#)



TIMSS - 2019 - English
You are logged in as: 9996 [Logout](#)

TIMSS 2019 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 2019—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.

S3. 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](#) 31/38 [Table of Contents](#) [Next](#)

TIMSS - 2019 - English
 You are logged in as: 9996 [Logout](#)

TIMSS 2019 Curriculum Questionnaire – Eighth Grade - Curriculum Specifications

S4. How is the science curriculum implementation evaluated?

Check one circle for each line.

	Yes	No
a) Visits by inspectors	<input type="radio"/>	<input type="radio"/>
b) Research programs	<input type="radio"/>	<input type="radio"/>
c) School self-evaluation	<input type="radio"/>	<input type="radio"/>
d) National or regional examinations	<input type="radio"/>	<input type="radio"/>
e) Other	<input type="radio"/>	<input type="radio"/>
Please specify below:		

Comments:

[Previous](#)

32/38 [Table of Contents](#)

[Next](#)

© IEA Online SurveySystem 2019 - Help

Source: [TIMSS 2019 Grade 8 Curriculum Questionnaire](#)

Exhibit D-9. TIMSS 2019 Grade 8 Curriculum Questionnaire—Continued

IEA
TIMSS
2019

TIMSS - 2019 - English
You are logged in as: 9996 Logout

TIMSS 2019 Curriculum Questionnaire – Eighth Grade - Use of Digital Devices

Use of Digital Devices

This science module refers to the national curriculum that was in effect for the eighth grade students assessed in TIMSS 2019—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.

S5. Does the national curriculum contain statements/policies about the use of digital devices (e.g., computers, tablets, calculators) in grade 8 science instruction?

Check *one* circle only.

Yes
 No

If Yes...
What are the statements/policies?

Previous 33/38 [Table of Contents](#) Next

© IEA Online SurveySystem 2019 - Help

Source: [TIMSS 2019 Grade 8 Curriculum Questionnaire](#)

Exhibit D-9. TIMSS 2019 Grade 8 Curriculum Questionnaire—Continued

TIMSS - 2019 - English
You are logged in as: 9996 [Logout](#)

TIMSS 2019 Curriculum Questionnaire – Eighth Grade - Specialist Science Teachers

Specialist Science Teachers

S6. At what grade(s) are students first taught by science subject specialists rather than general classroom teachers?

Previous 34/38 [Table of Contents](#) Next

© IEA Online SurveySystem 2019 - Help

Source: [TIMSS 2019 Grade 8 Curriculum Questionnaire](#)



TIMSS - 2019 - English
 You are logged in as: 9996 [Logout](#)

TIMSS 2019 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 2019—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. (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.												
	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. Biology																
a) Differences among major taxonomic groups of organisms (plants, animals, fungi, mammals, birds, reptiles, fish, amphibians, insects)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Major organs and organ systems in humans and other organisms (structure/function, life processes)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Cells, their structure and functions, including respiration and photosynthesis as cellular processes	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Life cycles, sexual reproduction, and heredity (inherited versus acquired/learned characteristics)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) Role of variation and adaptation in survival/extinction of species (including fossil evidence)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Previous
35/38 [Table of Contents](#)
Next

© IEA Online SurveySystem 2019 - Help (Continued on Next Page)

Source: [TIMSS 2019 Grade 8 Curriculum Questionnaire](#)

Exhibit D-9. TIMSS 2019 Grade 8 Curriculum Questionnaire—Continued



TIMSS - 2019 - English (Continued)
You are logged in as: 9996 Logout

TIMSS 2019 Curriculum Questionnaire – Eighth Grade - Eighth Grade Science Topics Covered

f) Interdependence of populations of organisms in an ecosystem (e.g., carbon and water cycles, energy flow, food webs, competition, predation, human impacts on ecosystems)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g) Human health (e.g., causes, transmission, and prevention of common infectious diseases, immunity) and the importance of diet, exercise, and other lifestyle choices in maintaining health	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Comments:

Previous 35/38 [Table of Contents](#) Next

© IEA Online SurveySystem 2019 - Help

Source: [TIMSS 2019 Grade 8 Curriculum Questionnaire](#)



TIMSS - 2019 - English
 You are logged in as: 9996 [Logout](#)

TIMSS 2019 Curriculum Questionnaire – Eighth Grade - Eighth Grade Science Topics Covered

S7. (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)												
	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
<p><i>Check one circle for each line.</i></p> <p><i>Check the corresponding grade(s) for each topic.</i></p>																
B. Chemistry																
a) Particulate structure, classification, and composition of matter (protons, neutrons, electrons, atoms, molecules, elements, compounds, mixtures)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) The periodic table as an organizing principle for the known elements	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Physical and chemical properties of matter	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Mixtures and solutions (e.g., solvent, solute, concentration/dilution)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) Properties of common acids and bases (e.g., acids have pH less than 7, reactions with indicators produce color changes, acids and bases neutralize each other)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f) Characteristics of chemical reactions (e.g., transformation of reactants, evidence of chemical change)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g) Matter and energy in chemical reactions (conservation of matter, familiar exothermic and endothermic reactions, factors affecting reaction rates)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
h) The role of electrons in chemical bonds	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

36/38 [Table of Contents](#)

© IEA Online SurveySystem 2019 - Help (Continued on Next Page)

Source: [TIMSS 2019 Grade 8 Curriculum Questionnaire](#)

Exhibit D-9. TIMSS 2019 Grade 8 Curriculum Questionnaire—Continued

TIMSS - 2019 - English (Continued)
You are logged in as: 9996 Logout

TIMSS 2019 Curriculum Questionnaire – Eighth Grade - Eighth Grade Science Topics Covered

Comments:

Previous 36/38 [Table of Contents](#) Next

© IEA Online SurveySystem 2019 - Help

Source: [TIMSS 2019 Grade 8 Curriculum Questionnaire](#)

Exhibit D-9. TIMSS 2019 Grade 8 Curriculum Questionnaire—Continued



TIMSS - 2019 - English
 You are logged in as: 9996 Logout

TIMSS 2019 Curriculum Questionnaire – Eighth Grade - Eighth Grade Science Topics Covered

S7. (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.												
	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
C. Physics																
a) Physical states and changes in matter (explanations of properties in terms of movement and distance between particles; phase change, changes in volume and/or pressure, physical changes)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Energy transformation and transfer (e.g., forms of energy, energy conservation, heat temperature, equilibrium)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Basic properties/behaviors of light (reflection, refraction, color, shadows, simple ray diagrams)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Basic properties/behaviors of sound (vibrations that produce sound, transmission through media, loudness, pitch)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) Electric circuits (e.g., electrical conductors/insulators and the flow of electricity in series/parallel circuits)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f) Properties and uses of permanent magnets and electromagnets	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g) Motion and forces (e.g., basic description of motion, common mechanical forces, properties of forces, effects of forces, simple machines, buoyancy, effects of density and pressure)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Source: [TIMSS 2019 Grade 8 Curriculum Questionnaire](#)

Exhibit D-9. TIMSS 2019 Grade 8 Curriculum Questionnaire—Continued

**IEA
TIMSS
2019**

TIMSS - 2019 - English (Continued)
You are logged in as: 9996 Logout

TIMSS 2019 Curriculum Questionnaire – Eighth Grade - Eighth Grade Science Topics Covered

Comments:

Previous 37/38 [Table of Contents](#) Next

© IEA Online SurveySystem 2019 - Help

Source: [TIMSS 2019 Grade 8 Curriculum Questionnaire](#)

Exhibit D-9. TIMSS 2019 Grade 8 Curriculum Questionnaire—Continued

TIMSS - 2019 - English
 You are logged in as: 9996 [Logout](#)

TIMSS 2019 Curriculum Questionnaire – Eighth Grade - Eighth Grade Science Topics Covered

S7. (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.												
	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
D. Earth Science																
a) Earth's structure and physical features (e.g., Earth's crust, mantle, and core; composition and relative distribution of water; composition of Earth's atmosphere)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Earth's processes, cycles, and history (e.g., rock cycle, major geological events, formation of fossils and fossil fuels, water cycle, weather versus climate)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Earth's resources, their use, and conservation (e.g., renewable/nonrenewable resources, human use of land and water resources)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Earth in the Solar System and the universe (phenomena on Earth: seasons, eclipses, tides, phases of moon; members of the Solar System; physical features of Earth)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Previous
38/38 [Table of Contents](#)
Next

© IEA Online SurveySystem 2019 - Help (Continued on Next Page)

Source: [TIMSS 2019 Grade 8 Curriculum Questionnaire](#)

Exhibit D-9. TIMSS 2019 Grade 8 Curriculum Questionnaire—Continued

IEA
TIMSS
2019

TIMSS - 2019 - English (Continued)
You are logged in as: 9996 Logout

TIMSS 2019 Curriculum Questionnaire – Eighth Grade - Eighth Grade Science Topics Covered


Comments:

Previous 38/38 [Table of Contents](#) Next

© IEA Online SurveySystem 2019 - Help

Source: [TIMSS 2019 Grade 8 Curriculum Questionnaire](#)

Exhibit D-9. TIMSS 2019 Grade 8 Curriculum Questionnaire—Continued



TIMSS - 2019 - English
You are logged in as: 9996 [Logout](#)

TIMSS 2019 Curriculum Questionnaire – Eighth Grade

Thank you for completing the TIMSS 2019 Curriculum Questionnaire.
Your information has been stored successfully.

[Prepare printer version](#)

© IEA Online SurveySystem 2019 - Help

Source: [TIMSS 2019 Grade 8 Curriculum Questionnaire](#)



The graphic features a central vertical stack of elements. At the top is a black box with the IEA logo and 'TIMSS 2019' in white. Below this is a 6x3 grid of squares in various shades of blue and grey. Underneath the grid is the text 'Grade 8' in a large, blue, sans-serif font. The entire graphic is framed by horizontal bars in light blue and grey. To the right of the graphic is the Boston College logo and the text 'BOSTON COLLEGE timss.bc.edu'. At the bottom right, the IEA logo is followed by 'TIMSS & PIRLS International Study Center Lynch School of Education BOSTON COLLEGE'. A copyright notice '© IEA, 2019' is located at the bottom left of the graphic area.

IEA
TIMSS
2019

Grade
8

© IEA, 2019

IEA
TIMSS & PIRLS
International Study Center
Lynch School of Education
BOSTON COLLEGE

BOSTON COLLEGE
timss.bc.edu

Source: [TIMSS 2019 Grade 8 Curriculum Questionnaire](#)