



IEA

TIMSS

2023

Identification Label

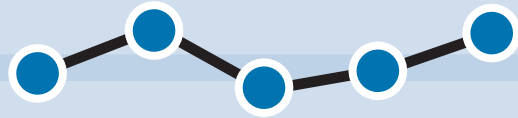
TRENDS IN INTERNATIONAL MATHEMATICS AND SCIENCE STUDY

Teacher Questionnaire Mathematics

<Grade 8>

<TIMSS National Research Center Name>

<Address>



IEA

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

Teacher Questionnaire

Your school has agreed to participate in TIMSS 2023 (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 more than 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 secondary education in <country>.

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 <country>. Nevertheless, it is important that you do your best to answer all of the questions so comparisons can be made across countries in the studies.

It is estimated that you will need approximately 35 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:

<Insert country-specific information here>.

Thank you.

TIMSS 2023

About You

1

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

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

2

Which of these describes you?

Check **one** circle only.

- Female ---
- Male ---
- <Other> ---

3

How old are you?

Check **one** circle only.

- Under 25 ---
- 25–29 ---
- 30–39 ---
- 40–49 ---
- 50–59 ---
- 60 or more ---

4

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

Check **one** circle only.

Did not complete <Upper secondary education—ISCED Level 3> ---

<Upper secondary education—ISCED Level 3> --- 

(If you have not completed <post-secondary or tertiary education>, go to #6)

<Post-secondary, non-tertiary education—ISCED Level 4> ---

<Short-cycle tertiary education—ISCED Level 5> ---

<Bachelor's or equivalent level—ISCED Level 6> ---

<Master's or equivalent level—ISCED Level 7> ---

<Doctor or equivalent level—ISCED Level 8> ---

5

During your <post-secondary> education, what was your **major or main area(s) of study**?

Check **one** circle for each line.

- | | Yes | No |
|--------------------------------|-----------------------|-----------------------|
| a) Mathematics ----- | <input type="radio"/> | <input type="radio"/> |
| b) Biology ----- | <input type="radio"/> | <input type="radio"/> |
| c) Physics ----- | <input type="radio"/> | <input type="radio"/> |
| d) Chemistry ----- | <input type="radio"/> | <input type="radio"/> |
| e) <Earth Science> ----- | <input type="radio"/> | <input type="radio"/> |
| f) Education—Mathematics ----- | <input type="radio"/> | <input type="radio"/> |
| g) Education—Science ----- | <input type="radio"/> | <input type="radio"/> |
| h) Education—General ----- | <input type="radio"/> | <input type="radio"/> |
| i) Other ----- | <input type="radio"/> | <input type="radio"/> |

6

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

Check **one** circle for each line.

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

7

How much do you agree or disagree with the following statements about your current school?

Check **one** circle for each line.

	Agree a lot				
	Agree a little				
	Disagree a little				
	Disagree a lot				
a) I feel safe at this school		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b) This school's security policies and practices are sufficient		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c) The students behave in an orderly manner		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
d) The students are respectful of the teachers		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
e) The students respect school property		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
f) This school has clear rules about student conduct		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
g) This school's rules are enforced in a fair and consistent manner		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

About Being a Teacher

8

How often do you have these feelings about being a teacher?

Check **one** circle for each line.

	Very often	Often	Sometimes	Never or almost never
a) I am content with my profession as a teacher -----	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b) I find my work full of meaning and purpose -----	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c) I am enthusiastic about my job -----	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
d) My work inspires me -----	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
e) I am proud of the work I do -----	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
f) I feel appreciated as a teacher -----	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
g) I enjoy the challenges of teaching -----	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

9

How much do you agree or disagree with the statements below?

Check **one** circle for each line.

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

10

How many students are in this class?

_____ students
Write in the number.

11

How many <eighth grade> students experience difficulties understanding spoken <language of test>?

_____ students in this class
Write in the number.

12

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

Check **one** circle for each line.

Every or almost every lesson
About half the lessons
Some lessons
Never

- a) Relate the lesson to students' daily lives ----- — — —
- b) Ask students to explain their answers ----- — — —
- c) Communicate goals or objectives for the lesson to the students ----- — — —
- d) Ask students to complete challenging exercises that require them to go beyond the instruction ----- — — —
- e) Encourage classroom discussions among students ----- — — —
- f) Link new content to students' prior knowledge ----- — — —
- g) Ask students to decide their own problem solving procedures ----- — — —

13

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

Check **one** circle for each line.

Not at all
Some
A lot

- a) Students lacking prerequisite knowledge or skills ----- — —
- b) Students suffering from lack of basic nutrition ----- — —
- c) Students suffering from not enough sleep ----- — —
- d) Students absent from class ----- — —
- e) Disruptive students ----- — —
- f) Uninterested students ----- — —
- g) Distracted students ----- — —
- h) Students with mental, emotional, or psychological impairment ----- — —
- i) Students with difficulties understanding the language of instruction ----- — —

14

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.

15

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

Check **one** circle for each line.

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

16

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

Check **one** circle only.

Yes, with unrestricted use ---

Yes, with restricted use ---

No ---

17

A. Do the students in this class have digital devices (including computers, tablets, or smartphones) available to use during mathematics lessons?

Check **one** circle only.

Yes ---

No --- 

(If No, go to #18)

If Yes,

B. What access do the students have to digital devices?

Check **one** circle for each line.

- | | | |
|--|-----------------------|-----------------------|
| | Yes | No |
| a) The class has digital devices for each student to use----- | <input type="radio"/> | <input type="radio"/> |
| b) The class has digital devices that students can share ----- | <input type="radio"/> | <input type="radio"/> |
| c) The school has digital devices that the class can use sometimes ----- | <input type="radio"/> | <input type="radio"/> |
| d) Students bring their own digital devices ----- | <input type="radio"/> | <input type="radio"/> |

C. How often do you have students use digital devices during mathematics instruction?

Check **one** circle only.

- At least once a week ---
- Once or twice a month ---
- A few times a year ---
- Never or almost never ---

D. How often do you ask the students in your class to use digital devices to do these mathematics activities?

Check **one** circle for each line.

- | | | | | |
|--|-----------------------|-----------------------|-----------------------|-----------------------|
| | At least once a week | Once or twice a month | A few times a year | Never or almost never |
| a) Practice problems and procedures ----- | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| b) Solve extended or contextualized problems ----- | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| c) Create graphs, tables, or other data displays ----- | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| d) Play games involving mathematics calculations or concepts ----- | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| e) Read the textbook or watch instructional videos ----- | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| f) Take a test ----- | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

18

How much do each of these keep you from incorporating digital devices into mathematics instruction?

Check **one** circle for each line.

- | | | | |
|--|-----------------------|-----------------------|-----------------------|
| | Not at all | Somewhat | A lot |
| a) Not knowing how to use digital devices to improve student learning----- | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| b) Not enough access to digital devices ----- | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| c) Keeping students on task when the class is using digital devices ----- | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| d) Lack of technical support from the school ----- | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

The following list includes topics addressed by the TIMSS mathematics test. Choose the response that best describes when each topic is taught for students in this class.

If a topic was in the curriculum before <eighth grade>, choose “Mostly taught before this year.” If you have taught a topic this year, choose “Mostly taught this year.” If a topic is not in the <eighth grade> curriculum for this year or you have not yet taught a topic, choose “Not yet taught.”

Check **one** circle for each line.

Mostly taught before this year
 Mostly taught this year
 Not yet taught

A. Number

- a) Add and subtract positive and negative numbers ----- — —
- b) Find and use factors, multiples, positive powers, or square roots of positive whole numbers ----- — —
- c) Compare fractions and decimals ----- — —
- d) Add, subtract, and multiply with fractions and decimals ----- — —
- e) Divide fractions and decimals by a whole number ----- — —
- f) Determine proportions and ratios ----- — —
- g) Find percentages and convert between percentages and fractions/decimals ----- — —

B. Algebra

- a) Simplify and compare algebraic expressions ----- — —
- b) Solve simple linear equations ----- — —
- c) Solve simple linear inequalities ----- — —
- d) Solve simultaneous linear equations (two variables) ----- — —
- e) Write expressions, equations, or inequalities to represent problems ----- — —
- f) Interpret linear functions in graphs, tables, or words ----- — —
- g) Interpret simple non-linear functions (e.g., quadratic, cubic) in graphs, tables, or words ----- — —
- h) Generalize linear and non-linear pattern relationships or sequences ----- — —

C. Geometry and Measurement

- a) Read and plot points in the Cartesian plane ----- — —
- b) Recognize and draw different types of angles and lines ----- — —
- c) Use geometric properties of polygons to calculate lengths, perimeter, and area (including the Pythagorean Theorem) ----- — —
- d) Determine the results of geometric translation, reflection, and rotation ----- — —
- e) Use properties of similar and congruent figures ----- — —
- f) Calculate surface area and volume of common three-dimensional shapes ----- — —


D. Data and Probability

- a) Interpret data from one or more data sources ----- — —
- b) Represent data in graphs, charts, or plots ----- — —
- c) Calculate and interpret the mean or median of a data distribution ----- — —
- d) Calculate probabilities of simple and compound events ----- — —

20

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

Check **one** circle only.

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

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

Check **one** circle for each line.

- | | | | |
|---|--------------------------------|-----------------------|------------------------------|
| | Always or almost always | Sometimes | Never or almost never |
| a) Correct assignments and give feedback to students ----- | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| b) Have students correct their own homework ----- | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| c) Discuss the homework in class ----- | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| d) Monitor whether or not the homework was completed ----- | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| e) Use the homework to contribute towards students' grades or marks ----- | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

21

How much importance do you place on these strategies to assess students' learning in mathematics?

Check **one** circle for each line.

- | | | | |
|---|-----------------------|-----------------------|-----------------------|
| | A lot | Some | None |
| a) Observing students as they work ----- | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| b) Asking students to answer questions during class ----- | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| c) Short, regular written assessments ----- | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| d) Longer tests (e.g., unit tests or exams) ----- | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| e) Long-term projects ----- | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

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?

Check **one** circle for each line.

Check **one** circle for each line.

	Yes	No	Yes	No
a) Mathematics content -----	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b) Mathematics pedagogy/ instruction-----	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c) Mathematics curriculum--	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
d) Integrating technology into mathematics instruction-----	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
e) Improving students' critical thinking or problem solving skills-----	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
f) Mathematics assessment -	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
g) Addressing individual students' needs-----	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Thank You

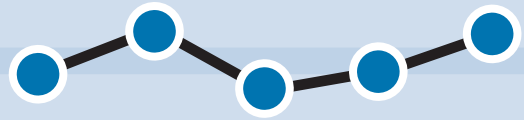
Thank you for the thought, time, and effort you have put into completing this questionnaire.



BOSTON
COLLEGE

timss.bc.edu

<Grade 8>



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International Association
for the Evaluation of
Educational Achievement