



Identification Label

TRENDS IN INTERNATIONAL MATHEMATICS AND SCIENCE STUDY

Teacher Questionnaire

<Grade 4>

<TIMSS National Research Center Name>

<Address>

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 primary/elementary 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 2019

About You

G1

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

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

G2

Are you female or male?

Check **one** circle only.

Female ---

Male ---

G3

How old are you?

Check **one** circle only.

Under 25 ---

25–29 ---

30–39 ---

40–49 ---

50–59 ---

60 or more ---

G4

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 #G6)

<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> ---

G5

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

Check **one** circle for each line.

- | | Yes | No |
|---------------------------------------|-----------------------|-----------------------|
| a) Education—Primary/Elementary ----- | <input type="radio"/> | <input type="radio"/> |
| b) Education—Secondary ----- | <input type="radio"/> | <input type="radio"/> |
| c) Mathematics ----- | <input type="radio"/> | <input type="radio"/> |
| d) Science ----- | <input type="radio"/> | <input type="radio"/> |
| e) <language of test> ----- | <input type="radio"/> | <input type="radio"/> |
| f) Other ----- | <input type="radio"/> | <input type="radio"/> |

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

Check **one** circle for each line.

- | | Yes | No |
|---------------------------|-----------------------|-----------------------|
| a) Mathematics ----- | <input type="radio"/> | <input type="radio"/> |
| b) Science ----- | <input type="radio"/> | <input type="radio"/> |
| c) Language/reading ----- | <input type="radio"/> | <input type="radio"/> |
| d) Other subject ----- | <input type="radio"/> | <input type="radio"/> |

G6

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"/>				
b) Teachers' degree of success in implementing the school's curriculum	-----	<input type="radio"/>				
c) Teachers' expectations for student achievement	-----	<input type="radio"/>				
d) Teachers' ability to inspire students	-----	<input type="radio"/>				
e) Parental involvement in school activities	-----	<input type="radio"/>				
f) Parental commitment to ensure that students are ready to learn	-----	<input type="radio"/>				
g) Parental expectations for student achievement	-----	<input type="radio"/>				
h) Parental support for student achievement	-----	<input type="radio"/>				
i) Students' desire to do well in school	-----	<input type="radio"/>				
j) Students' ability to reach school's academic goals	-----	<input type="radio"/>				
k) Students' respect for classmates who excel academically	-----	<input type="radio"/>				
l) Collaboration between school leadership (including master teachers) and teachers to plan instruction	-----	<input type="radio"/>				

G7

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

Check **one** circle for each line.

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

G8

How often do you feel the following way 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 ----- — — —

b) I find my work full of meaning and purpose ----- — — —

c) I am enthusiastic about my job ----- — — —

d) My work inspires me ----- — — —

e) I am proud of the work I do ----- — — —

G9

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

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 ----- — — —

b) I have too much material to cover in class ----- — — —

c) I have too many teaching hours ----- — — —

d) I need more time to prepare for class ----- — — —

e) I need more time to assist individual students ----- — — —

f) I feel too much pressure from parents ----- — — —

g) I have difficulty keeping up with all of the changes to the curriculum ----- — — —

h) I have too many administrative tasks ----- — — —

About Teaching the TIMSS Class

G10

A. How many students are in this class?

_____ students
Write in the number.

B. How many of the students in #G10A are in <fourth grade>?

_____ <fourth grade> students
Write in the number.

G11

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

_____ students in this class
Write in the number.

G12

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) Bring interesting materials to class ----- — — —
- 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 ----- — — —
- h) Encourage students to express their ideas in class ----- — — —

G13

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 -----	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b) Students suffering from lack of basic nutrition -----	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c) Students suffering from not enough sleep -----	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
d) Students absent from class ----	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
e) Disruptive students -----	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
f) Uninterested students -----	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
g) Students with mental, emotional, or psychological impairment -----	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
h) Students with difficulties understanding the language of instruction -----	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

M1

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.

M2

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"/>

Using Calculators and Computers for Teaching Mathematics to the TIMSS Class

M3

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

Check **one** circle only.

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

M4

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

Check **one** circle only.

- Yes ---
- No --- (If No, go to #M5)

If Yes,

B. What access do the students have to computers?

Check **one** circle for each line.

- | | Yes | No |
|--|-----------------------|-----------------------|
| a) Each student has a computer ----- | <input type="radio"/> | <input type="radio"/> |
| b) The class has computers that students can share ----- | <input type="radio"/> | <input type="radio"/> |
| c) The school has computers that the class can use sometimes ----- | <input type="radio"/> | <input type="radio"/> |

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

Check **one** circle for each line.

- | | Every or almost every day | Once or twice a week | Once or twice a month | Never or almost never |
|--------------------------------------|---------------------------|-----------------------|-----------------------|-----------------------|
| a) Whole class ----- | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| b) Low-performing students ----- | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| c) High-performing students ----- | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| d) Students with special needs ----- | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

M5

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.”

Check **one** circle for each line.



A. Number

- a) Concepts of whole numbers, including place value and ordering ----- — —
- b) Adding, subtracting, multiplying, and dividing with whole numbers ----- — —
- c) Concepts of multiples and factors; odd and even numbers ----- — —
- d) Number sentences (finding the missing number, representing problem situations with number sentences) ----- — —
- e) Number patterns (extending number patterns and finding missing terms) ----- — —
- f) Concepts of fractions, including representing, comparing and ordering, adding and subtracting simple fractions ----- — —
- g) Concepts of decimals, including place value and ordering, adding and subtracting with decimals ----- — —

B. Measurement and Geometry

- a) Solving problems involving length, including measuring and estimating ----- — —
- b) Solving problems involving mass, volume, and time ----- — —
- c) Finding and estimating perimeter, area, and volume ----- — —
- d) Parallel and perpendicular lines ----- — —
- e) Comparing and drawing angles ----- — —
- f) Elementary properties of common geometric shapes ----- — —
- g) Three-dimensional shapes, including relationships with their two-dimensional representations ----- — —

C. Data

- a) Reading and interpreting data from tables, pictographs, bar graphs, line graphs, and pie charts ----- — —
- b) Organizing and representing data to help answer questions ----- — —
- c) Drawing conclusions from data displays ----- — —

M6

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 #M7)
- Less than once a week ---
- 1 or 2 times a week ---
- 3 or 4 times a week ---
- Every day ---

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.)

Check **one** circle only.

- 15 minutes or less ---
- 16–30 minutes ---
- 31–60 minutes ---
- More than 60 minutes ---

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

Check **one** circle for each line.



- a) Correct assignments and give feedback to students ----- — —
- b) Discuss the homework in class ----- — —
- c) Monitor whether or not the homework was completed ----- — —

M7

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

Check **one** circle for each line.

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

M8

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

Check **one** circle only.

- More than once a month ---
- Once a month ---
- Twice a year --
- Once a year ---
- Never --

M9

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

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"/>

M10

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

Check **one** circle only.

None----

Less than 6 hours----

6–15 hours----

16–35 hours----

More than 35 hours----

S1

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

Check **one** circle only.

Yes ---

No ---

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.

S2

In teaching science to the students in this class, how often do you ask them 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 science content ----- --- --- ---
- b) Observe natural phenomena such as the weather or a plant growing and describe what they see ----- --- --- ---
- c) Watch me demonstrate an experiment or investigation --- --- --- ---
- d) Design or plan experiments or investigations ----- --- --- ---
- e) Conduct experiments or investigations ----- --- --- ---
- f) Present data from experiments or investigations ----- --- --- ---
- g) Interpret data from experiments or investigations ----- --- --- ---
- h) Use evidence from experiments or investigations to support conclusions ----- --- --- ---
- i) Read their textbooks or other resource materials ----- --- --- ---
- j) Have students memorize facts and principles ----- --- --- ---
- k) Do field work outside the class --- --- ---
- l) Work in mixed ability groups -- --- --- ---
- m) Work in same ability groups -- --- --- ---

S3

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

Check **one** circle only.

Yes ---

No --- 

(If No, go to #S4)

If Yes,

B. What access do the students have to computers?

Check **one** circle for each line.

- | | | | | |
|--|-----------------------|-----|-----------------------|----|
| | | Yes | | No |
| a) Each student has a computer ----- | <input type="radio"/> | — | <input type="radio"/> | |
| b) The class has computers that students can share ----- | <input type="radio"/> | — | <input type="radio"/> | |
| c) The school has computers that the class can use sometimes ----- | <input type="radio"/> | — | <input type="radio"/> | |

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

Check **one** circle for each line.

- | | | | | | | | | |
|--------------------------------------|-----------------------|---------------------------|-----------------------|----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| | | Every or almost every day | | Once or twice a week | | Once or twice a month | | Never or almost never |
| a) Whole class ----- | <input type="radio"/> | — | <input type="radio"/> | — | <input type="radio"/> | — | <input type="radio"/> | |
| b) Low-performing students ----- | <input type="radio"/> | — | <input type="radio"/> | — | <input type="radio"/> | — | <input type="radio"/> | |
| c) High-performing students ----- | <input type="radio"/> | — | <input type="radio"/> | — | <input type="radio"/> | — | <input type="radio"/> | |
| d) Students with special needs ----- | <input type="radio"/> | — | <input type="radio"/> | — | <input type="radio"/> | — | <input type="radio"/> | |

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."

Check **one** circle for each line.



A. Life Science

- a) Physical and behavioral characteristics of living things and major groups of living things (e.g., mammals, birds, insects, flowering plants) ----- — —
- b) Major body structures and their functions in humans, other animals, and plants ----- — —
- c) Life cycles of common plants and animals (e.g., flowering plants, butterflies, frogs) ----- — —
- d) Characteristics of plants and animals that are inherited ----- — —
- e) Interactions between organisms and their environments (e.g., physical features and behaviors that help living things survive in their environments) ----- — —
- f) Relationships in ecosystems (e.g., simple food chains, predator-prey relationships, competition) ----- — —
- g) Human health (transmission and prevention of diseases, everyday behaviors that promote good health) ----- — —

B. Physical Science

- a) States of matter (solid, liquid, gas) and their properties (volume, shape) ----- — —
- b) Classifying materials based on physical properties (e.g., weight/mass, volume, state of matter, conductivity of heat or electricity) ----- — —
- c) Mixtures, including methods for separating a mixture into its components (e.g., sifting, filtering, evaporation, using a magnet) ----- — —
- d) Properties of magnets (e.g., like poles repel and opposite poles attract, magnets can attract some objects) ----- — —
- e) Physical changes in everyday life (e.g., changes of state, dissolving) ----- — —
- f) Chemical changes in everyday life (e.g., decaying, burning, rusting, cooking) ----- — —
- g) Common sources of energy (e.g., the Sun, wind, oil) and uses of energy (heating and cooling homes, providing light) ----- — —
- h) Light and sound in everyday life (e.g., shadows and reflections, vibrating objects make sound) ----- — —
- i) Heat transfer (e.g., energy flows from a hot object to a colder object) ----- — —
- j) Electricity and simple electrical circuits (e.g., a circuit must be complete to work correctly) ----- — —
- k) Forces that cause objects to move (e.g., gravity, pushing/pulling) or change their motion (e.g., friction) ----- — —
- l) Simple machines (e.g., levers, pulleys, wheels, ramps) that help make motion easier ----- — —

(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."

Check **one** circle for each line.



C. Earth Science

- a) Physical makeup of Earth's surface (e.g., land and water in unequal proportions, sources of fresh and salt water) ----- ○ — ○ — ○
- b) Earth's resources used in everyday life (e.g., water, wind, soil, forests, oil, natural gas, minerals) ----- ○ — ○ — ○
- c) Changes in Earth's surface over time (e.g., mountain building, weathering, erosion) ----- ○ — ○ — ○
- d) Fossils and what they can tell us about past conditions on Earth ----- ○ — ○ — ○
- e) Weather and climate (e.g., daily, seasonal, and locational variations versus long term trends) ----- ○ — ○ — ○
- f) Objects in the Solar System (the Sun, the Earth, the Moon, and other planets) and their movements ----- ○ — ○ — ○
- g) Earth's motion and related patterns observed on Earth (e.g., day and night, seasons) ----- ○ — ○ — ○

S5

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

Check **one** circle only.

I do not assign science homework --- 

(Go to #S6)

Less than once a week ---

1 or 2 times a week ---

3 or 4 times a week ---

Every day ---

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.)

Check **one** circle only.

15 minutes or less ---

16–30 minutes ---

31–60 minutes ---

More than 60 minutes ---

C. How often do you do the following with the science 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 ----- --- ---

b) Discuss the homework in class ----- --- ---

c) Monitor whether or not the homework was completed ----- --- ---

S6

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

Check **one** circle for each line.

A Lot
Some
None

a) Observing students as they work ----- --- ---

b) Asking students to answer questions during class ----- --- ---

c) Short, regular written assessments ----- --- ---

d) Longer tests (e.g., unit tests or exams) ----- --- ---

e) Long-term projects ----- --- ---

S7

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

Check **one** circle only.

More than once a month ---

Once a month ---

Twice a year --

Once a year ---

Never --

S8

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	
a) Science content	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b) Science pedagogy/instruction	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c) Science curriculum	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
d) Integrating technology into science instruction	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
e) Improving students' critical thinking or inquiry skills	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
f) Science 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"/>
h) Integrating science with other subjects (e.g., mathematics, technology)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

S9

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

Check **one** circle only.

None ----

Less than 6 hours ----

6–15 hours ----

16–35 hours ----

More than 35 hours ----

Thank You

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



BOSTON
COLLEGE

timss.bc.edu

<Grade 4>



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