



Identification Label

**TRENDS IN INTERNATIONAL MATHEMATICS AND SCIENCE STUDY**

**<Grade 4>**

**<TIMSS National Research Centre Name>**

**<Address>**



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

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# Teacher

Your school has agreed to participate in TIMSS 2015 (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

**TIMSS** 2015

# About You

## G1

**B** he end of hi school ea, ho man ea ill  
o ha e been eaching a l oge he ?

\_\_\_\_\_ years  
P round

## G2

**A** e o female o male?

C one  
Female --- A  
Male --- A


## G3

**H**o old a e o ?

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

## G4

**W**ha i he high le el of fo ma le ed ca ion o  
ha e com, le ed?

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

(If o ha e no com, le ed  
<po - econda o e ia  
ed ca ion>, go o #G6)

<Post-secondary, non-tertiary  
education—ISCED Level 4> --- A  
<Short-cycle tertiary  
education—ISCED Level 5> --- A  
<Bachelor's or equivalent  
level—ISCED Level 6> --- A  
<Master's or equivalent  
level—ISCED Level 7> --- A  
<Doctor or equivalent  
level—ISCED Level 8> --- A

## G5

**A. D** ing o <po - econda > ed ca ion, ha  
a o majo o main a ea ( ) of d ?

C one

	Yes	No
a) Education—Primary/Elementary	A	A
b) Education—Secondary	A	A
c) Mathematics	A	A
d) Science	A	A
e) <language of test>	A	A
f) Other	A	A

**B. I**f o majo o main a ea of d a  
ed ca ion, did o ha ea <speciali a ion>  
in an of he follo ing?

C one

	Yes	No
a) Mathematics	A	A
b) Science	A	A
c) Language/reading	A	A
d) Other subject	A	A





# About Being a Teacher

G9

How often do you have the following type of interaction with other teachers?

	C	o	n	e
	Very often			
	Often			
	Sometimes		Never or almost never	
a) Discuss how to teach a particular topic -----	A	—	A	—
b) Collaborate in planning and preparing instructional materials -----	A	—	A	—
c) Share what I have learned about my teaching experiences -----	A	—	A	—
d) Visit another classroom to learn more about teaching -----	A	—	A	—
e) Work together to try out new ideas -----	A	—	A	—
f) Work as a group on implementing the curriculum -----	A	—	A	—
g) Work with teachers from other grades to ensure continuity in learning -----	A	—	A	—

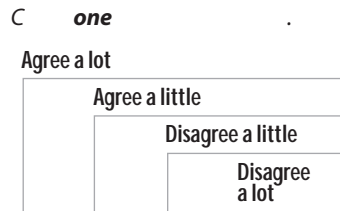
G10

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

	C	o	n	e
	Very often			
	Often			
	Sometimes		Never or almost never	
a) I am content with my profession as a teacher -----	A	—	A	—
b) I am satisfied with being a teacher at this school -----	A	—	A	—
c) I find my work full of meaning and purpose -----	A	—	A	—
d) I am enthusiastic about my job -----	A	—	A	—
e) My work inspires me -----	A	—	A	—
f) I am proud of the work I do -----	A	—	A	—
g) I am going to continue teaching for as long as I can -----	A	—	A	—

G11

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



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

G12

A. How many children are in his class?

\_\_\_\_\_ students

B. How many of the children in #G12A are in <fourth grade>?

\_\_\_\_\_ <fourth grade> students

G13

How many <fourth grade> children experience difficulty understanding spoken <language of English>?

\_\_\_\_\_ students in this class





**M3**

**In eaching ma hema ic o hi cla , ho of en do  
o a k den o do he follo ing?**

- C one**
- Every or almost every lesson
- About half the lessons
- Some lessons
- Never

- a) Listen to me explain new mathematics content ----- A — A — A — A
- b) Listen to me explain how to solve problems ----- A — A — A — A
- c) Memorize rules, procedures, and facts ----- A — A — A — A
- d) Work problems (individually or with peers) with my guidance- A — A — A — A
- e) Work problems together in the whole class with direct guidance from me ----- A — A — A — A
- f) Work problems (individually or with peers) while I am occupied by other tasks ----- A — A — A — A
- g) Take a written test or quiz ----- A — A — A — A

M4

Are the children in his class permitted to use  
calculators in mathematics lessons?

Circle one.


Yes, with unrestricted use -----ea



M7

A. Ho of endo o all a ign ma hema ic home o k o he den in hi cla ?

C one

I do not assign mathematics homework --- A  (Go to #M8)

Less than once a week --- A

1 or 2 times a week --- A

3 or 4 times a week --- A

Every day --- A

B. When o a ign ma hema ic home o k o he den in hi cla ,abo ho man min e do o all a ign?(Con ide he ime i o ld ake ana e age den in o cla .)

C one

15 minutes or less --- A

16–30 minutes --- A

31–60 minutes --- A

More than 60 minutes --- A

C. Ho of endo o do he follo ing i h he ma hema ic home o ka ignmen fo hi cla ?

C one

Always or almost always

Sometimes

Never or almost never

a) Correct assignments and give feedback to students ----- A - A - A

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

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

M8

Ho m chem,ha i do o place on he follo ing o ce omoni o den 'og e in ma hema ic ?

C one

Major emphasis

Some emphasis

Little or no emphasis

a) Assessment of students' ongoing work ----- A - A - A

b) Classroom tests (for example, teacher-made or textbook tests) ----- A - A - A

c) National or regional achievement tests ----- A - A - A

M9

In he  $\mu$  a o ea ,ha e o  $\mu$  a ici $\mu$  a ed in  $\mu$  ofe ional de elo $\mu$  men in an of he follo ing?

C one

- |   | Yes   | No    |
|---|-------|-------|
| a) Mathematics content -----  | A — A | A — A |
| b) Mathematics pedagogy/instruction -----                                   | A — A | A — A |
| c) Mathematics curriculum -----   | A — A | A — A |
| d) Integrating information<br>technology into mathematics -----             | A — A | A — A |
| e) Improving students' critical thinking or<br>problem solving skills ----- | A — A | A — A |
| f) Mathematics assessment -----   | A — A | A — A |
| g) Addressing individual students' needs -----                              | A — A | A — A |

M10

In he  $\mu$  a o ea ,ho man ho in o al ha e o  $\mu$  en in fo mal <in- e ice/  $\mu$  ofe ional de elo $\mu$  men > (e.g., o k ho  $\mu$  , emina , e c.) fo ma hema ic ?

C one

- None --- A
- Less than 6 hours --- A
- 6–15 hours --- A
- 16–35 hours --- A
- More than 35 hours --- A

How well prepared do you feel about each of the following mathematics objectives?  
 If an objective is not in the <math>\langle \text{focusing grade} \rangle</math> curriculum, please choose  
 Not applicable.

**Circle one**  
 Not applicable  
 Very well prepared  
 Somewhat prepared  
 Not well prepared

**A. Number**

- a) Concepts of whole numbers, including place value and ordering ----- A — A — A — A
- b) Adding, subtracting, multiplying, and/or dividing with whole numbers ----- A — A — A — A
- c) Concepts of multiples and factors; odd and even numbers ----- A — A — A — A
- d) Concepts of fractions (fractions as parts of a whole or of a collection, or as a location on a number line) ----- A — A — A — A
- e) Adding and subtracting with fractions, comparing and ordering fractions ----- A — A — A — A
- f) Concepts of decimals, including place value and ordering, adding and subtracting with decimals ----- A — A — A — A
- g) Number sentences (finding the missing number, modeling simple situations with number sentences) ----- A — A — A — A
- h) Number patterns (extending number patterns and finding missing terms) ----- A — A — A — A

**B. Geometric Shape and Measurement**

- a) Lines: measuring, estimating length of; parallel and perpendicular lines ----- A — A — A — A
- b) Comparing and drawing angles ----- A — A — A — A

S2

In teaching science to his class, how confident are you in doing the following?

Confidence

Very high  
High  
Medium  
Low

a) Inspiring students to learn science ----- A — A

In eaching cience o he den in hi cla , ho  
of endo o a k hem o do he follo ing?

C **one** .  
Every or almost every lesson  
About half the lessons  
Some lessons  
Never

- a) Listen to me explain  
new science content ----- A — A — A — A
- b) Observe natural phenomena  
such as the weather or a  
plant growing and describe  
what they see ----- A — A — A — A
- c) Watch me demonstrate an  
experiment or investigation --- A — A — A — A
- d) Design or plan experiments  
or investigations ----- A — A — A — A
- e) Conduct experiments or  
investigations ----- A — A — A — A
- f) Present data from experiments  
or investigations ----- A — A — A — A
- g) Interpret data from experiments  
or investigations ----- A — A — A — A
- h) Use evidence from experiments





S5

Choose the response that best describes when the standard has been taught each objective. If an objective is in the curriculum before the <u>fifth grade</u>, please choose Most taught before this year. If an objective is taught half the year but not completely, please choose Most taught this year. If an objective is not in the curriculum, please choose Not yet taught or just introduced.

Choose one

Mostly taught before this year

Mostly taught this year

Not yet taught or  
just introduced





S10

How often do you feel about each of the following science topics?  
If a topic is not in the following grade

How well prepared do you feel about each of the following science topics?

If a topic is not in the <forth grade> curriculum, please choose 'Not applicable'.

**Circle one**  
 Not applicable  
 Very well prepared  
 Somewhat prepared  
 Not well prepared

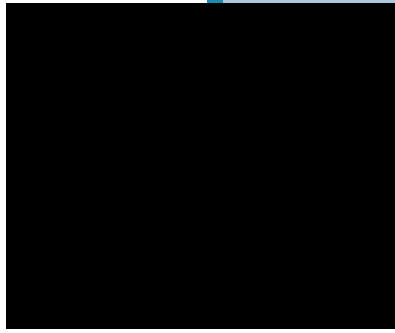
**C. Earth Science**

- a) Common features of the Earth's landscape (e.g., mountains, plains, deserts, rivers, oceans) and their relationship to human use (farming, irrigation, land development) ----- A — A — A — A
- b) Where water is found on the Earth and how it moves in and out of the air (e.g., evaporation, rainfall, cloud formation, dew formation) ----- A — A — A — A
- c) Understanding that weather can change from day to day, from season to season, and by geographic location ----- A — A — A — A
- d) Understanding what fossils are and what they can tell us about past conditions on Earth----- A — A — A — A
- e) Objects in the solar system (the Sun, the Earth, the Moon, and other planets) and their movements (the Earth and other planets revolve around the Sun, the Moon revolves around the Earth)----- A — A — A — A
- f) Understanding how day and night result from the Earth's rotation on its axis and how the Earth's rotation results in changing shadows throughout the day ----- A — A — A — A

# Thank You

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

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**<G ade 4>**