

TIMSS
2015

SECTION 1: FOURTH GRADE – STUDENT QUESTIONNAIRE

**TIMSS 2015 USER GUIDE FOR THE
INTERNATIONAL DATABASE**



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

Exhibit S1.1: Index of International Background Variables for the TIMSS 2015 Student Questionnaire - Fourth Grade

TIMSS 2015 Question Number	TIMSS 2015 Variable Name	TIMSS 2015 Variable Description (See questionnaire for full item text)	TIMSS 2011 Variable Name	Notes
SQG-01	ASBG01	Are you a girl or a boy?	ASBG01	
SQG-02a	ASBG02A	When were you born? Month	ASBG02A	
SQG-02b	ASBG02B	When were you born? Year	ASBG02B	
SQG-03	ASBG03	How often do you speak <language of test> at home?	ASBG03	Modified response options in 2015
SQG-04	ASBG04	About how many books are there in your home? (Do not count magazines, newspapers, or your school books.)	ASBG04	
SQG-05a	ASBG05A	Do you have any of these things at your home? A computer or tablet of your own	ASBG05A	Modified wording in 2015
SQG-05b	ASBG05B	Do you have any of these things at your home? A computer or tablet that is shared with other people at home	ASBG05A	Modified wording in 2015
SQG-05c	ASBG05C	Do you have any of these things at your home? Study desk/table for your use	ASBG05B	
SQG-05d	ASBG05D	Do you have any of these things at your home? Your own room	ASBG05D	
SQG-05e	ASBG05E	Do you have any of these things at your home? Internet connection	ASBG05E	
SQG-05f	ASBG05F	Do you have any of these things at your home? Your own mobile phone		
SQG-05g	ASBG05G	Do you have any of these things at your home? A gaming system		
SQG-05h	ASBG05H	Do you have any of these things at your home? <country-specific indicator of wealth>		
SQG-05i	ASBG05I	Do you have any of these things at your home? <country-specific indicator of wealth>		
SQG-05j	ASBG05J	Do you have any of these things at your home? <country-specific indicator of wealth>		
SQG-05k	ASBG05K	Do you have any of these things at your home? <country-specific indicator of wealth>		
SQG-06A	ASBG06A	Was your mother (or stepmother or female guardian) born in <country>?		
SQG-06B	ASBG06B	Was your father (or stepfather or male guardian) born in <country>?		
SQG-07	ASBG07	Were you born in <country>?		
SQG-08	ASBG08	About how often are you absent from school?		
SQG-09	ASBG09	How often do you eat breakfast on school days?		
SQG-10a	ASBG10A	How often do you use a computer or tablet in each of these places for schoolwork? At home		
SQG-10b	ASBG10B	How often do you use a computer or tablet in each of these places for schoolwork? At school		
SQG-10c	ASBG10C	How often do you use a computer or tablet in each of these places for schoolwork? Some other place		
SQG-11a	ASBG11A	What do you think about your school? Tell how much you agree with these statements. I like being in school	ASBG08A	
SQG-11b	ASBG11B	What do you think about your school? Tell how much you agree with these statements. I feel safe when I am at school	ASBG08B	
SQG-11c	ASBG11C	What do you think about your school? Tell how much you agree with these statements. I feel like I belong at this school	ASBG08C	
SQG-11d	ASBG11D	What do you think about your school? Tell how much you agree with these statements. I like to see my classmates at school		
SQG-11e	ASBG11E	What do you think about your school? Tell how much you agree with these statements. Teachers at my school are fair to me		
SQG-11f	ASBG11F	What do you think about your school? Tell how much you agree with these statements. I am proud to go to this school		
SQG-11g	ASBG11G	What do you think about your school? Tell how much you agree with these statements. I learn a lot in school		
SQG-12a	ASBG12A	During this school year, how often have other students from your school done any of the following things to you? Made fun of me or called me names		
SQG-12b	ASBG12B	During this school year, how often have other students from your school done any of the following things to you? Left me out of their games or activities		

Exhibit S1.1: Index of International Background Variables for the TIMSS 2015 Student Questionnaire - Fourth Grade (Continued)

TIMSS 2015 Question Number	TIMSS 2015 Variable Name	TIMSS 2015 Variable Description (See questionnaire for full item text)	TIMSS 2011 Variable Name	Notes
SQG-12c	ASBG12C	During this school year, how often have other students from your school done any of the following things to you? Spread lies about me		
SQG-12d	ASBG12D	During this school year, how often have other students from your school done any of the following things to you? Stole something from me		
SQG-12e	ASBG12E	During this school year, how often have other students from your school done any of the following things to you? Hit or hurt me		
SQG-12f	ASBG12F	During this school year, how often have other students from your school done any of the following things to you? Made me do things I didn't want to do		
SQG-12g	ASBG12G	During this school year, how often have other students from your school done any of the following things to you? Shared embarrassing information about me		
SQG-12h	ASBG12H	During this school year, how often have other students from your school done any of the following things to you? Threatened me		
SQMS-01a	ASBM01A	How much do you agree with these statements about learning mathematics? I enjoy learning mathematics	ASBM01A	
SQMS-01b	ASBM01B	How much do you agree with these statements about learning mathematics? I wish I did not have to study mathematics	ASBM01B	
SQMS-01c	ASBM01C	How much do you agree with these statements about learning mathematics? Mathematics is boring	ASBM01C	
SQMS-01d	ASBM01D	How much do you agree with these statements about learning mathematics? I learn many interesting things in mathematics	ASBM01D	
SQMS-01e	ASBM01E	How much do you agree with these statements about learning mathematics? I like mathematics	ASBM01E	
SQMS-01f	ASBM01F	How much do you agree with these statements about learning mathematics? I like any schoolwork that involves numbers		
SQMS-01g	ASBM01G	How much do you agree with these statements about learning mathematics? I like to solve mathematics problems		
SQMS-01h	ASBM01H	How much do you agree with these statements about learning mathematics? I look forward to mathematics lessons		
SQMS-01i	ASBM01I	How much do you agree with these statements about learning mathematics? Mathematics is one of my favorite subjects		
SQMS-02a	ASBM02A	How much do you agree with these statements about your mathematics lessons? ASBM02A I know what my teacher expects me to do	ASBM02A	
SQMS-02b	ASBM02B	How much do you agree with these statements about your mathematics lessons? ASBM02B My teacher is easy to understand	ASBM02C	
SQMS-02c	ASBM02C	How much do you agree with these statements about your mathematics lessons? ASBM02D I am interested in what my teacher says	ASBM02D	
SQMS-02d	ASBM02D	How much do you agree with these statements about your mathematics lessons? ASBM02E My teacher gives me interesting things to do	ASBM02E	
SQMS-02e	ASBM02E	How much do you agree with these statements about your mathematics lessons? ASBM02F My teacher has clear answers to my questions		
SQMS-02f	ASBM02F	How much do you agree with these statements about your mathematics lessons? ASBM02G My teacher is good at explaining mathematics		
SQMS-02g	ASBM02G	How much do you agree with these statements about your mathematics lessons? ASBM02H My teacher lets me show what I have learned		
SQMS-02h	ASBM02H	How much do you agree with these statements about your mathematics lessons? ASBM02I My teacher does a variety of things to help us learn		
SQMS-02i	ASBM02I	How much do you agree with these statements about your mathematics lessons? ASBM02J My teacher tells me how to do better when I make a mistake		
SQMS-02j	ASBM02J	How much do you agree with these statements about your mathematics lessons? ASBM03A My teacher listens to what I have to say		
SQMS-03a	ASBM03A	How much do you agree with these statements about mathematics? I usually do well in mathematics	ASBM03A	
SQMS-03b	ASBM03B	How much do you agree with these statements about mathematics? Mathematics is harder for me than for many of my classmates	ASBM03B	

Exhibit S1.1: Index of International Background Variables for the TIMSS 2015 Student Questionnaire - Fourth Grade (Continued)

TIMSS 2015 Question Number	TIMSS 2015 Variable Name	TIMSS 2015 Variable Description (See questionnaire for full item text)	TIMSS 2011 Variable Name	Notes
SQMS-03c	ASBM03C	How much do you agree with these statements about mathematics? I am just not good at mathematics	ASBM03C	
SQMS-03d	ASBM03D	How much do you agree with these statements about mathematics? I learn things quickly in mathematics	ASBM03D	
SQMS-03e	ASBM03E	How much do you agree with these statements about mathematics? Mathematics makes me nervous		
SQMS-03f	ASBM03F	How much do you agree with these statements about mathematics? I am good at working out difficult mathematics problems	ASBM03E	
SQMS-03g	ASBM03G	How much do you agree with these statements about mathematics? My teacher tells me I am good at mathematics	ASBM03F	
SQMS-03h	ASBM03H	How much do you agree with these statements about mathematics? Mathematics is harder for me than any other subject	ASBM03G	
SQMS-03i	ASBM03I	How much do you agree with these statements about mathematics? Mathematics makes me confused		
SQMS-04a	ASBS04A	How much do you agree with these statements about learning science? I enjoy learning science	ASBS04A	
SQMS-04b	ASBS04B	How much do you agree with these statements about learning science? I wish I did not have to study science	ASBS04B	
SQMS-04c	ASBS04C	How much do you agree with these statements about learning science? Science is boring	ASBS04D	
SQMS-04d	ASBS04D	How much do you agree with these statements about learning science? I learn many interesting things in science	ASBS04E	
SQMS-04e	ASBS04E	How much do you agree with these statements about learning science? I like science	ASBS04F	
SQMS-04f	ASBS04F	How much do you agree with these statements about learning science? I look forward to learning science in school		
SQMS-04g	ASBS04G	How much do you agree with these statements about learning science? Science teaches me how things in the world work		
SQMS-04h	ASBS04H	How much do you agree with these statements about learning science? I like to do science experiments		
SQMS-04i	ASBS04I	How much do you agree with these statements about learning science? Science is one of my favorite subjects		
SQMS-05a	ASBS05A	How much do you agree with these statements about your science lessons? I know what my teacher expects me to do	ASBS05A	
SQMS-05b	ASBS05B	How much do you agree with these statements about your science lessons? My teacher is easy to understand	ASBS05C	
SQMS-05c	ASBS05C	How much do you agree with these statements about your science lessons? I am interested in what my teacher says	ASBS05D	
SQMS-05d	ASBS05D	How much do you agree with these statements about your science lessons? My teacher gives me interesting things to do	ASBS05E	
SQMS-05e	ASBS05E	How much do you agree with these statements about your science lessons? My teacher has clear answers to my questions		
SQMS-05f	ASBS05F	How much do you agree with these statements about your science lessons? My teacher is good at explaining science		
SQMS-05g	ASBS05G	How much do you agree with these statements about your science lessons? My teacher lets me show what I have learned		
SQMS-05h	ASBS05H	How much do you agree with these statements about your science lessons? My teacher does a variety of things to help us learn		
SQMS-05i	ASBS05I	How much do you agree with these statements about your science lessons? My teacher tells me how to do better when I make a mistake		
SQMS-05j	ASBS05J	How much do you agree with these statements about your science lessons? My teacher listens to what I have to say		
SQMS-06a	ASBS06A	How much do you agree with these statements about science? I usually do well in science	ASBS06A	

Exhibit S1.1: Index of International Background Variables for the TIMSS 2015 Student Questionnaire - Fourth Grade (Continued)

TIMSS 2015 Question Number	TIMSS 2015 Variable Name	TIMSS 2015 Variable Description (See questionnaire for full item text)	TIMSS 2011 Variable Name	Notes
SQMS-06b	ASBS06B	How much do you agree with these statements about science? Science is harder for me than for many of my classmates	ASBS06B	
SQMS-06c	ASBS06C	How much do you agree with these statements about science? I am just not good at science	ASBS06C	
SQMS-06d	ASBS06D	How much do you agree with these statements about science? I learn things quickly in science	ASBS06D	
SQMS-06e	ASBS06E	How much do you agree with these statements about science? My teacher tells me I am good at science	ASBS06E	
SQMS-06f	ASBS06F	How much do you agree with these statements about science? Science is harder for me than any other subject	ASBS06F	
SQMS-06g	ASBS06G	How much do you agree with these statements about science? Science makes me confused		



Identification Label

TRENDS IN INTERNATIONAL MATHEMATICS AND SCIENCE STUDY

Student Questionnaire

<Grade 4>

<TIMSS National Research Center Name>
<Address>



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

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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 one circle only.

Yes --

No --

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

Example 2

How often do you do these things?

Fill one circle for each line.

Every day or almost every day	Once or twice a week	Once or twice a month	Never or almost never
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a) I talk with my friends -----



b) I play sports -----



c) I ride a skateboard -----

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

Example 3

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

Fill one circle for each line.

	Agree a lot	Agree a little	Disagree a little	Disagree a lot
a) Watching movies is fun -----	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b) I like eating ice cream -----	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c) I do not like waking up early -----	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
d) I enjoy doing chores -----	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

- Read each question carefully, and pick the answer you think is best.
- Fill in the circle next to or under your answer.
- If you decide to change your answer, draw an X through your first answer, like this: . Then, fill in the circle 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

G1

ASBG01

Are you a girl or a boy?

Fill one circle only.

Girl --

Boy --

G2

When were you born?

Fill the circles next to the month and year you were born.

ASBG02A

a) Month

January --

February --

March --

April --

May --

June --

July --

August --

September --

October --

November --

December --

b) Year

2002 --

2003 --

2004 --

2005 --

2006 --

2007 --

2008 --

Other --



G3

ASBG03

How often do you speak <language of test> at home?

Fill one circle only.

I always speak
<language of test> at home --

I almost always speak
<language of test> at home --

I sometimes speak <language
of test> and sometimes speak
another language at home --

I never speak <language
of test> at home --

<Grade 4> Student Questionnaire

4

G4

ASBG04

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

Fill one circle only.

None or very few (0–10 books) --

This shows 10 books



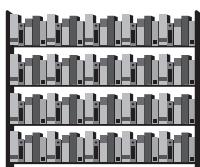
Enough to fill one shelf (11–25 books) --

This shows 25 books



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

This shows 100 books



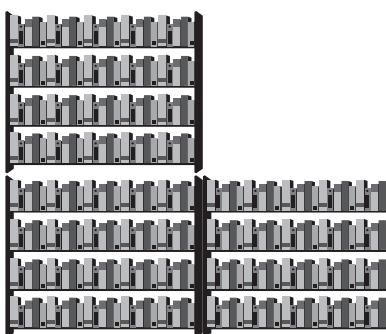
Enough to fill two bookcases
(101–200 books) --

This shows 200 books



Enough to fill three or more bookcases
(more than 200) --

This shows more than 200 books

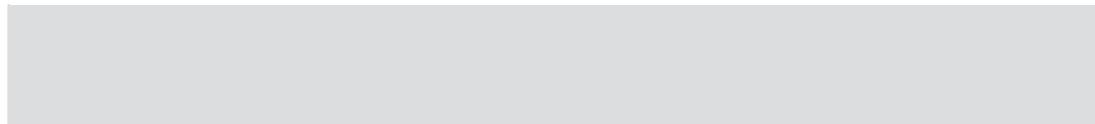


G5**Do you have any of these things at your home?***Fill one circle for each line.*

Yes No



- ASBG05A a) A computer or tablet of your own ---
- ASBG05B b) A computer or tablet that is shared with other people at home -----
- ASBG05C c) Study desk/table for your use -----
- ASBG05D d) Your own room -----
- ASBG05E e) Internet connection -----
- ASBG05F f) Your own mobile phone -----
- ASBG05G g) A gaming system
(e.g., PlayStation®,
Wii®, XBox®) -----
- ASBG05H h) <country-specific indicator of wealth> -----
- ASBG05I i) <country-specific indicator of wealth> -----
- ASBG05J j) <country-specific indicator of wealth> -----
- ASBG05K k) <country-specific indicator of wealth> -----



G6

ASBG06A

- A. Was your mother (or stepmother or female guardian) born in <country>?**

Fill one circle only.

Yes --

No --

I don't know --

ASBG06B

- B. Was your father (or stepfather or male guardian) born in <country>?**

Fill one circle only.

Yes --

No --

I don't know --

G7

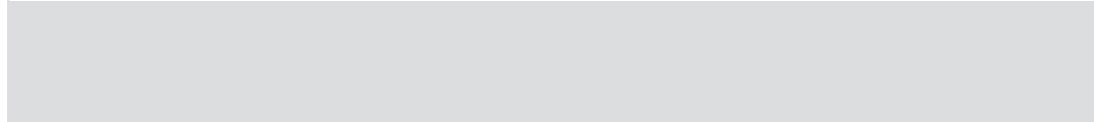
ASBG07

- Were you born in <country>?**

Fill one circle only.

Yes --

No --



G8

ASBG08

About how often are you absent from school?

Fill one circle only.

Once a week or more --

Once every two weeks --

Once a month --

Never or almost never --

G9

ASBG09

How often do you eat breakfast on school days?

Fill one circle only.

Every day --

Most days --

Sometimes --

Never or almost never --

G10

How often do you use a computer or tablet in each of these places for schoolwork (including classroom tasks, homework, studying outside of class)?

Fill one circle for each line.

Every day or almost every day	Once or twice a week	Once or twice a month	Never or almost never
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ASBG10A

a) At home -----

ASBG10B

b) At school -----

ASBG10C

c) Some other place -----

Your School

G11

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

Fill **one** circle for each line.

		Agree a lot	Agree a little	Disagree a little	Disagree a lot
ASBG11A	a) I like being in school -----	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
ASBG11B	b) I feel safe when I am at school -----	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
ASBG11C	c) I feel like I belong at this school -----	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
ASBG11D	d) I like to see my classmates at school -----	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
ASBG11E	e) Teachers at my school are fair to me -----	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
ASBG11F	f) I am proud to go to this school -----	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
ASBG11G	g) I learn a lot in school -----	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

G12

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 one circle for each line.

		At least once a week	Once or twice a month	A few times a year	Never
ASBG12A	a) Made fun of me or called me names -----	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
ASBG12B	b) Left me out of their games or activities -----	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
ASBG12C	c) Spread lies about me -----	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
ASBG12D	d) Stole something from me -----	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
ASBG12E	e) Hit or hurt me (e.g., <i>shoving, hitting, kicking</i>) -----	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
ASBG12F	f) Made me do things I didn't want to do -----	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
ASBG12G	g) Shared embarrassing information about me -----	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
ASBG12H	h) Threatened me -----	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Mathematics in school

MS1

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

Fill **one** circle for each line.

Agree
a lot
↓
Agree
a little
↓
Disagree
a little
↓
Disagree
a lot
↓

- ASBM01A a) I enjoy learning mathematics -----
- ASBM01B b) I wish I did not have to study mathematics -----
- ASBM01C c) Mathematics is boring -----
- ASBM01D d) I learn many interesting things in mathematics -----
- ASBM01E e) I like mathematics -----
- ASBM01F f) I like any schoolwork that involves numbers -----
- ASBM01G g) I like to solve mathematics problems -----
- ASBM01H h) I look forward to mathematics lessons -----
- ASBM01I i) Mathematics is one of my favorite subjects -----

MS2

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

Fill one circle for each line.

	Agree a lot	Agree a little	Disagree a little	Disagree a lot
ASBM02A	----- <input type="radio"/>	----- <input type="radio"/>	----- <input type="radio"/>	----- <input type="radio"/>
ASBM02B	----- <input type="radio"/>	----- <input type="radio"/>	----- <input type="radio"/>	----- <input type="radio"/>
ASBM02C	----- <input type="radio"/>	----- <input type="radio"/>	----- <input type="radio"/>	----- <input type="radio"/>
ASBM02D	----- <input type="radio"/>	----- <input type="radio"/>	----- <input type="radio"/>	----- <input type="radio"/>
ASBM02E	----- <input type="radio"/>	----- <input type="radio"/>	----- <input type="radio"/>	----- <input type="radio"/>
ASBM02F	----- <input type="radio"/>	----- <input type="radio"/>	----- <input type="radio"/>	----- <input type="radio"/>
ASBM02G	----- <input type="radio"/>	----- <input type="radio"/>	----- <input type="radio"/>	----- <input type="radio"/>
ASBM02H	----- <input type="radio"/>	----- <input type="radio"/>	----- <input type="radio"/>	----- <input type="radio"/>
ASBM02I	----- <input type="radio"/>	----- <input type="radio"/>	----- <input type="radio"/>	----- <input type="radio"/>
ASBM02J	----- <input type="radio"/>	----- <input type="radio"/>	----- <input type="radio"/>	----- <input type="radio"/>

MS3

How much do you agree with these statements about mathematics?

Fill one circle for each line.

Agree a lot Agree a little Disagree a little Disagree a lot

- ASBM03A a) I usually do well in mathematics ---
- ASBM03B b) Mathematics is harder for me than for many of my classmates ----
- ASBM03C c) I am just not good at mathematics -
- ASBM03D d) I learn things quickly in mathematics -----
- ASBM03E e) Mathematics makes me nervous ---
- ASBM03F f) I am good at working out difficult mathematics problems -----
- ASBM03G g) My teacher tells me I am good at mathematics -----
- ASBM03H h) Mathematics is harder for me than any other subject -----
- ASBM03I i) Mathematics makes me confused---

Science in school

MS4

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

Fill one circle for each line.

	Agree a lot	Agree a little	Disagree a little	Disagree a lot
ASBS04A a) I enjoy learning science -----	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
ASBS04B b) I wish I did not have to study science -----	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
ASBS04C c) Science is boring -----	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
ASBS04D d) I learn many interesting things in science -----	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
ASBS04E e) I like science -----	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
ASBS04F f) I look forward to learning science in school -----	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
ASBS04G g) Science teaches me how things in the world work -----	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
ASBS04H h) I like to do science experiments ----	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
ASBS04I i) Science is one of my favorite subjects -----	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

MS5

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

Fill **one** circle for each line.

		Agree a lot	Agree a little	Disagree a little	Disagree a lot
ASBS05A	a) I know what my teacher expects me to do -----	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
ASBS05B	b) My teacher is easy to understand --	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
ASBS05C	c) I am interested in what my teacher says -----	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
ASBS05D	d) My teacher gives me interesting things to do -----	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
ASBS05E	e) My teacher has clear answers to my questions -----	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
ASBS05F	f) My teacher is good at explaining science -----	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
ASBS05G	g) My teacher lets me show what I have learned -----	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
ASBS05H	h) My teacher does a variety of things to help us learn -----	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
ASBS05I	i) My teacher tells me how to do better when I make a mistake -----	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
ASBS05J	j) My teacher listens to what I have to say -----	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

MS6

How much do you agree with these statements about science?

Fill one circle for each line.

Agree a lot Agree a little Disagree a little Disagree a lot

- ASBS06A a) I usually do well in science -----
- ASBS06B b) Science is harder for me than for many of my classmates -----
- ASBS06C c) I am just not good at science -----
- ASBS06D d) I learn things quickly in science -----
- ASBS06E e) My teacher tells me I am good at science -----
- ASBS06F f) Science is harder for me than any other subject -----
- ASBS06G g) Science makes me confused -----

Thank You!

Thank you for filling out the questionnaire!

TIMSS
2015



TRENDS IN INTERNATIONAL MATHEMATICS AND SCIENCE STUDY

Student Questionnaire

<Grade 4>



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for the Evaluation of
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TIMSS
2015

SECTION 3: FOURTH GRADE – TEACHER QUESTIONNAIRE

**TIMSS 2015 USER GUIDE FOR THE
INTERNATIONAL DATABASE**



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

Exhibit S1.3: Index of International Background Variables for the TIMSS 2015 Teacher Questionnaire - Fourth Grade

TIMSS 2015 Question Number	TIMSS 2015 Variable Name	TIMSS 2015 Variable Description (See questionnaire for full item text)	TIMSS 2011 Variable Name	Notes
TQG-01	ATBG01	By the end of this school year, how many years will you have been teaching altogether?	ATBG01	
TQG-02	ATBG02	Are you female or male?	ATBG02	
TQG-03	ATBG03	How old are you?	ATBG03	
TQG-04	ATBG04	What is the highest level of formal education you have completed?	ATBG04	Modified response options in 2015
TQG-05Aa	ATBG05AA	During your <post-secondary> education, what was your major or main area(s) of study? Education—Primary/Elementary	ATBG05AA	
TQG-05Ab	ATBG05AB	During your <post-secondary> education, what was your major or main area(s) of study? Education—Secondary	ATBG05AB	
TQG-05Ac	ATBG05AC	During your <post-secondary> education, what was your major or main area(s) of study? Mathematics	ATBG05AC	
TQG-05Ad	ATBG05AD	During your <post-secondary> education, what was your major or main area(s) of study? Science	ATBG05AD	
TQG-05Ae	ATBG05AE	During your <post-secondary> education, what was your major or main area(s) of study? <language of test>	ATBG05AE	
TQG-05Af	ATBG05AF	During your <post-secondary> education, what was your major or main area(s) of study? Other	ATBG05AF	
TQG-05Ba	ATBG05BA	If your major or main area of study was education, did you have a <specialization> in any of the following? Mathematics	ATBG05BA	
TQG-05Bb	ATBG05BB	If your major or main area of study was education, did you have a <specialization> in any of the following? Science	ATBG05BB	
TQG-05Bc	ATBG05BC	If your major or main area of study was education, did you have a <specialization> in any of the following? Language/reading	ATBG05BC	
TQG-05Bd	ATBG05BD	If your major or main area of study was education, did you have a <specialization> in any of the following? Other subject	ATBG05BD	
TQG-06a	ATBG06A	How would you characterize each of the following within your school? Teachers' understanding of the school's curricular goals	ATBG06B	
TQG-06b	ATBG06B	How would you characterize each of the following within your school? Teachers' degree of success in implementing the school's curriculum	ATBG06C	
TQG-06c	ATBG06C	How would you characterize each of the following within your school? Teachers' expectations for student achievement	ATBG06D	
TQG-06d	ATBG06D	How would you characterize each of the following within your school? Teachers working together to improve student achievement		
TQG-06e	ATBG06E	How would you characterize each of the following within your school? Teachers' ability to inspire students		
TQG-06f	ATBG06F	How would you characterize each of the following within your school? Parental involvement in school activities	ATBG06F	
TQG-06g	ATBG06G	How would you characterize each of the following within your school? Parental commitment to ensure that students are ready to learn		
TQG-06h	ATBG06H	How would you characterize each of the following within your school? Parental expectations for student achievement		
TQG-06i	ATBG06I	How would you characterize each of the following within your school? Parental support for student achievement	ATBG06E	
TQG-06j	ATBG06J	How would you characterize each of the following within your school? Parental pressure for the school to maintain high academic standards		
TQG-06k	ATBG06K	How would you characterize each of the following within your school? Students' desire to do well in school	ATBG06H	
TQG-06l	ATBG06L	How would you characterize each of the following within your school? Students' ability to reach school's academic goals		
TQG-06m	ATBG06M	How would you characterize each of the following within your school? Students' respect for classmates who excel in school		

Exhibit S1.3: Index of International Background Variables for the TIMSS 2015 Teacher Questionnaire - Fourth Grade (Continued)

TIMSS 2015 Question Number	TIMSS 2015 Variable Name	TIMSS 2015 Variable Description (See questionnaire for full item text)	TIMSS 2011 Variable Name	Notes
TQG-06n	ATBG06N	How would you characterize each of the following within your school? Clarity of the school's educational objectives		
TQG-06o	ATBG06O	How would you characterize each of the following within your school? Collaboration between school leadership and teachers to plan instruction		
TQG-06p	ATBG06P	How would you characterize each of the following within your school? Amount of instructional support provided to teachers by school leadership		
TQG-06q	ATBG06Q	How would you characterize each of the following within your school? School leadership's support for teachers' professional development		
TQG-07a	ATBG07A	Thinking about your current school, indicate the extent to which you agree or disagree with each of the following statements. This school is located in a safe neighborhood	ATBG07A	
TQG-07b	ATBG07B	Thinking about your current school, indicate the extent to which you agree or disagree with each of the following statements. I feel safe at this school	ATBG07B	
TQG-07c	ATBG07C	Thinking about your current school, indicate the extent to which you agree or disagree with each of the following statements. This school's security policies and practices are sufficient	ATBG07C	
TQG-07d	ATBG07D	Thinking about your current school, indicate the extent to which you agree or disagree with each of the following statements. The students behave in an orderly manner	ATBG07D	
TQG-07e	ATBG07E	Thinking about your current school, indicate the extent to which you agree or disagree with each of the following statements. The students are respectful of the teachers	ATBG07E	
TQG-07f	ATBG07F	Thinking about your current school, indicate the extent to which you agree or disagree with each of the following statements. The students respect school property		
TQG-07g	ATBG07G	Thinking about your current school, indicate the extent to which you agree or disagree with each of the following statements. This school has clear rules about student conduct		
TQG-07h	ATBG07H	Thinking about your current school, indicate the extent to which you agree or disagree with each of the following statements. This school's rules are enforced in a fair and consistent manner		
TQG-08a	ATBG08A	In your current school, how severe is each problem? The school building needs significant repair	ATBG08A	
TQG-08b	ATBG08B	In your current school, how severe is each problem? Teachers do not have adequate workspace	ATBG08D	
TQG-08c	ATBG08C	In your current school, how severe is each problem? Teachers do not have adequate instructional materials and supplies	ATBG08E	
TQG-08d	ATBG08D	In your current school, how severe is each problem? The school classrooms are not cleaned often enough		
TQG-08e	ATBG08E	In your current school, how severe is each problem? The school classrooms need maintenance work		
TQG-08f	ATBG08F	In your current school, how severe is each problem? Teachers do not have adequate technological resources		
TQG-08g	ATBG08G	In your current school, how severe is each problem? Teachers do not have adequate support for using technology		
TQG-09a	ATBG09A	How often do you have the following types of interactions with other teachers? Discuss how to teach a particular topic		
TQG-09b	ATBG09B	How often do you have the following types of interactions with other teachers? Collaborate in planning and preparing instructional materials		
TQG-09c	ATBG09C	How often do you have the following types of interactions with other teachers? Share what I have learned about my teaching experiences		
TQG-09d	ATBG09D	How often do you have the following types of interactions with other teachers? Visit another classroom to learn more about teaching		

Exhibit S1.3: Index of International Background Variables for the TIMSS 2015 Teacher Questionnaire - Fourth Grade (Continued)

TIMSS 2015 Question Number	TIMSS 2015 Variable Name	TIMSS 2015 Variable Description (See questionnaire for full item text)	TIMSS 2011 Variable Name	Notes
TQG-09e	ATBG09E	How often do you have the following types of interactions with other teachers? Work together to try out new ideas		
TQG-09f	ATBG09F	How often do you have the following types of interactions with other teachers? Work as a group on implementing the curriculum		
TQG-09g	ATBG09G	How often do you have the following types of interactions with other teachers? Work with teachers from other grades to ensure continuity in learning		
TQG-10a	ATBG10A	How often do you feel the following way about being a teacher? I am content with my profession as a teacher		
TQG-10b	ATBG10B	How often do you feel the following way about being a teacher? I am satisfied with being a teacher at this school		
TQG-10c	ATBG10C	How often do you feel the following way about being a teacher? I find my work full of meaning and purpose		
TQG-10d	ATBG10D	How often do you feel the following way about being a teacher? I am enthusiastic about my job		
TQG-10e	ATBG10E	How often do you feel the following way about being a teacher? My work inspires me		
TQG-10f	ATBG10F	How often do you feel the following way about being a teacher? I am proud of the work I do		
TQG-10g	ATBG10G	How often do you feel the following way about being a teacher? I am going to continue teaching for as long as I can		
TQG-11a	ATBG11A	Indicate the extent to which you agree or disagree with each of the following statements. There are too many students in the classes		
TQG-11b	ATBG11B	Indicate the extent to which you agree or disagree with each of the following statements. I have too much material to cover in class		
TQG-11c	ATBG11C	Indicate the extent to which you agree or disagree with each of the following statements. I have too many teaching hours		
TQG-11d	ATBG11D	Indicate the extent to which you agree or disagree with each of the following statements. I need more time to prepare for class		
TQG-11e	ATBG11E	Indicate the extent to which you agree or disagree with each of the following statements. I need more time to assist individual students		
TQG-11f	ATBG11F	Indicate the extent to which you agree or disagree with each of the following statements. I feel too much pressure from parents		
TQG-11g	ATBG11G	Indicate the extent to which you agree or disagree with each of the following statements. I have difficulty keeping up with all of the changes to the curriculum		
TQG-11h	ATBG11H	Indicate the extent to which you agree or disagree with each of the following statements. I have too many administrative tasks		
TQG-12A	ATBG12A	How many students are in this class?	ATBG12A	
TQG-12B	ATBG12B	How many of the students in #G12A are in <fourth grade>?	ATBG12B	
TQG-13	ATBG13	How many <fourth grade> students experience difficulties understanding spoken <language of test>?	ATBG13	
TQG-14a	ATBG14A	How often do you do the following in teaching this class? Relate the lesson to students' daily lives	ATBG15B	
TQG-14b	ATBG14B	How often do you do the following in teaching this class? Ask students to explain their answers		
TQG-14c	ATBG14C	How often do you do the following in teaching this class? Bring interesting materials to class	ATBG15F	
TQG-14d	ATBG14D	How often do you do the following in teaching this class? Ask students to complete challenging exercises that require them to go beyond the instruction		
TQG-14e	ATBG14E	How often do you do the following in teaching this class? Encourage classroom discussions among students		
TQG-14f	ATBG14F	How often do you do the following in teaching this class? Link new content to students' prior knowledge		

Exhibit S1.3: Index of International Background Variables for the TIMSS 2015 Teacher Questionnaire - Fourth Grade (Continued)

TIMSS 2015 Question Number	TIMSS 2015 Variable Name	TIMSS 2015 Variable Description (See questionnaire for full item text)	TIMSS 2011 Variable Name	Notes
TQG-14g	ATBG14G	How often do you do the following in teaching this class? Ask students to decide their own problem solving procedures		
TQG-14h	ATBG14H	How often do you do the following in teaching this class? Encourage students to express their ideas in class		
TQG-15a	ATBG15A	In your view, to what extent do the following limit how you teach this class? Students lacking prerequisite knowledge or skills	ATBG16A	Modified response options in 2015
TQG-15b	ATBG15B	In your view, to what extent do the following limit how you teach this class? Students suffering from lack of basic nutrition	ATBG16B	Modified response options in 2015
TQG-15c	ATBG15C	In your view, to what extent do the following limit how you teach this class? Students suffering from not enough sleep	ATBG16C	Modified response options in 2015
TQG-15d	ATBG15D	In your view, to what extent do the following limit how you teach this class? Disruptive students	ATBG16E	Modified response options in 2015
TQG-15e	ATBG15E	In your view, to what extent do the following limit how you teach this class? Uninterested students	ATBG16F	Modified response options in 2015
TQG-15f	ATBG15F	In your view, to what extent do the following limit how you teach this class? Students with physical disabilities	ATBG16D	Modified wording and response options in 2015
TQG-15g	ATBG15G	In your view, to what extent do the following limit how you teach this class? Students with mental, emotional, or psychological disabilities	ATBG16D	Modified wording and response options in 2015
TQM-01	ATBM01	In a typical week, how much time do you spend teaching mathematics to the students in this class? (minutes)	ATBM01A ATBM01B	Hours and minutes separate variables in 2011
TQM-02a	ATBM02A	In teaching mathematics to this class, how would you characterize your confidence in doing the following? Inspiring students to learn mathematics		
TQM-02b	ATBM02B	In teaching mathematics to this class, how would you characterize your confidence in doing the following? Showing students a variety of problem solving strategies		
TQM-02c	ATBM02C	In teaching mathematics to this class, how would you characterize your confidence in doing the following? Providing challenging tasks for the highest achieving students		
TQM-02d	ATBM02D	In teaching mathematics to this class, how would you characterize your confidence in doing the following? Adapting my teaching to engage students' interest		
TQM-02e	ATBM02E	In teaching mathematics to this class, how would you characterize your confidence in doing the following? Helping students appreciate the value of learning mathematics		
TQM-02f	ATBM02F	In teaching mathematics to this class, how would you characterize your confidence in doing the following? Assessing student comprehension of mathematics		
TQM-02g	ATBM02G	In teaching mathematics to this class, how would you characterize your confidence in doing the following? Improving the understanding of struggling students		
TQM-02h	ATBM02H	In teaching mathematics to this class, how would you characterize your confidence in doing the following? Making mathematics relevant to students		
TQM-02i	ATBM02I	In teaching mathematics to this class, how would you characterize your confidence in doing the following? Developing students' higher-order thinking skills		
TQM-03a	ATBM03A	In teaching mathematics to this class, how often do you ask students to do the following? Listen to me explain new mathematics content		
TQM-03b	ATBM03B	In teaching mathematics to this class, how often do you ask students to do the following? Listen to me explain how to solve problems	ATBM03A	Modified wording in 2015

Exhibit S1.3: Index of International Background Variables for the TIMSS 2015 Teacher Questionnaire - Fourth Grade (Continued)

TIMSS 2015 Question Number	TIMSS 2015 Variable Name	TIMSS 2015 Variable Description (See questionnaire for full item text)	TIMSS 2011 Variable Name	Notes
TQM-03c	ATBM03C	In teaching mathematics to this class, how often do you ask students to do the following? Memorize rules, procedures, and facts	ATBM03B	Modified wording in 2015
TQM-03d	ATBM03D	In teaching mathematics to this class, how often do you ask students to do the following? Work problems with my guidance	ATBM03C	Modified wording in 2015
TQM-03e	ATBM03E	In teaching mathematics to this class, how often do you ask students to do the following? Work problems together in the whole class with direct guidance from me	ATBM03D	Modified wording in 2015
TQM-03f	ATBM03F	In teaching mathematics to this class, how often do you ask students to do the following? Work problems while I am occupied by other tasks	ATBM03E	Modified wording in 2015
TQM-03g	ATBM03G	In teaching mathematics to this class, how often do you ask students to do the following? Take a written test or quiz	ATBM03H	Modified wording in 2015
TQM-03h	ATBM03H	In teaching mathematics to this class, how often do you ask students to do the following? Work in mixed ability groups		
TQM-03i	ATBM03I	In teaching mathematics to this class, how often do you ask students to do the following? Work in same ability groups		
TQM-04	ATBM04	Are the students in this class permitted to use calculators during mathematics lessons?	ATBM05	
TQM-05A	ATBM05A	Do the students in this class have computers (including tablets) available to use during their mathematics lessons?	ATBM06A	Modified wording in 2015
TQM-05Ba	ATBM05BA	What access do the students have to computers? Each student has a computer		
TQM-05Bb	ATBM05BB	What access do the students have to computers? The class has computers that students can share		
TQM-05Bc	ATBM05BC	What access do the students have to computers? The school has computers that the class can use sometimes		
TQM-05Ca	ATBM05CA	How often do you have the students do the following activities on computers during mathematics lessons? Explore mathematics principles and concepts	ATBM06CA	Modified wording in 2015
TQM-05Cb	ATBM05CB	How often do you have the students do the following activities on computers during mathematics lessons? Practice skills and procedures	ATBM06CB	Modified wording in 2015
TQM-05Cc	ATBM05CC	How often do you have the students do the following activities on computers during mathematics lessons? Look up ideas and information	ATBM06CC	Modified wording in 2015
TQM-06Aa	ATBM06AA	When students in this class have been taught each of the following mathematics topics. Number: Concepts of whole numbers, including place value and ordering	See Question TQM-07 in 2011 for sub-topics.	
TQM-06Ab	ATBM06AB	When students in this class have been taught each of the following mathematics topics. Number: Adding, subtracting, multiplying, and/or dividing with whole numbers	See Question TQM-07 in 2011 for sub-topics.	
TQM-06Ac	ATBM06AC	When students in this class have been taught each of the following mathematics topics. Number: Concepts of multiples and factors; odd and even numbers	See Question TQM-07 in 2011 for sub-topics.	
TQM-06Ad	ATBM06AD	When students in this class have been taught each of the following mathematics topics. Number: Concepts of fractions (fractions as parts of a whole or of a collection, or as a location on a number line)	See Question TQM-07 in 2011 for sub-topics.	
TQM-06Ae	ATBM06AE	When students in this class have been taught each of the following mathematics topics. Number: Adding and subtracting with fractions, comparing and ordering fractions	See Question TQM-07 in 2011 for sub-topics.	
TQM-06Af	ATBM06AF	When students in this class have been taught each of the following mathematics topics. Number: Concepts of decimals, including place value and ordering, adding and subtracting with decimals	See Question TQM-07 in 2011 for sub-topics.	

Exhibit S1.3: Index of International Background Variables for the TIMSS 2015 Teacher Questionnaire - Fourth Grade (Continued)

TIMSS 2015 Question Number	TIMSS 2015 Variable Name	TIMSS 2015 Variable Description (See questionnaire for full item text)	TIMSS 2011 Variable Name	Notes
TQM-06Ag	ATBM06AG	When students in this class have been taught each of the following mathematics topics. Number: Number sentences	See Question TQM-07 in 2011 for sub-topics.	
TQM-06Ah	ATBM06AH	When students in this class have been taught each of the following mathematics topics. Number: Number patterns	See Question TQM-07 in 2011 for sub-topics.	
TQM-06Ba	ATBM06BA	When students in this class have been taught each of the following mathematics topics. Geometric Shapes and Measures: Lines: measuring, estimating length of; parallel and perpendicular lines	See Question TQM-07 in 2011 for sub-topics.	
TQM-06Bb	ATBM06BB	When students in this class have been taught each of the following mathematics topics. Geometric Shapes and Measures: Comparing and drawing angles	See Question TQM-07 in 2011 for sub-topics.	
TQM-06Bc	ATBM06BC	When students in this class have been taught each of the following mathematics topics. Geometric Shapes and Measures: Using informal coordinate systems to locate points in a plane	See Question TQM-07 in 2011 for sub-topics.	
TQM-06Bd	ATBM06BD	When students in this class have been taught each of the following mathematics topics. Geometric Shapes and Measures: Elementary properties of common geometric shapes	See Question TQM-07 in 2011 for sub-topics.	
TQM-06Be	ATBM06BE	When students in this class have been taught each of the following mathematics topics. Geometric Shapes and Measures: Reflections and rotations	See Question TQM-07 in 2011 for sub-topics.	
TQM-06Bf	ATBM06BF	When students in this class have been taught each of the following mathematics topics. Geometric Shapes and Measures: Relationships between two-dimensional and three-dimensional shapes	See Question TQM-07 in 2011 for sub-topics.	
TQM-06Bg	ATBM06BG	When students in this class have been taught each of the following mathematics topics. Geometric Shapes and Measures: Finding and estimating areas, perimeters, and volumes	See Question TQM-07 in 2011 for sub-topics.	
TQM-06Ca	ATBM06CA	When students in this class have been taught each of the following mathematics topics. Data Display: Reading and representing data from tables, pictographs, bar graphs, or pie charts	See Question TQM-07 in 2011 for sub-topics.	
TQM-06Cb	ATBM06CB	When students in this class have been taught each of the following mathematics topics. Data Display: Drawing conclusions from data displays	See Question TQM-07 in 2011 for sub-topics.	
TQM-07A	ATBM07A	How often do you usually assign mathematics homework to the students in this class?	ATBM09A	
TQM-07B	ATBM07B	When you assign mathematics homework to the students in this class, about how many minutes do you usually assign?	ATBM09B	
TQM-07Ca	ATBM07CA	How often do you do the following with the mathematics homework assignments for this class? Correct assignments and give feedback to students	ATBM09CA	
TQM-07Cb	ATBM07CB	How often do you do the following with the mathematics homework assignments for this class? Discuss the homework in class	ATBM09CB	

Exhibit S1.3: Index of International Background Variables for the TIMSS 2015 Teacher Questionnaire - Fourth Grade (Continued)

TIMSS 2015 Question Number	TIMSS 2015 Variable Name	TIMSS 2015 Variable Description (See questionnaire for full item text)	TIMSS 2011 Variable Name	Notes
TQM-07Cc	ATBM07CC	How often do you do the following with the mathematics homework assignments for this class? Monitor whether or not the homework was completed	ATBM09CC	
TQM-08a	ATBM08A	How much emphasis do you place on the following sources to monitor students' progress in mathematics? Assessment of students' ongoing work	ATBM10A	Modified wording in 2015
TQM-08b	ATBM08B	How much emphasis do you place on the following sources to monitor students' progress in mathematics? Classroom tests	ATBM10B	
TQM-08c	ATBM08C	How much emphasis do you place on the following sources to monitor students' progress in mathematics? National or regional achievement tests	ATBM10C	
TQM-09a	ATBM09A	In the past two years, have you participated in professional development in any of the following? Mathematics content	ATBM11A	
TQM-09b	ATBM09B	In the past two years, have you participated in professional development in any of the following? Mathematics pedagogy/instruction	ATBM11B	
TQM-09c	ATBM09C	In the past two years, have you participated in professional development in any of the following? Mathematics curriculum	ATBM11C	
TQM-09d	ATBM09D	In the past two years, have you participated in professional development in any of the following? Integrating information technology into mathematics	ATBM11D	
TQM-09e	ATBM09E	In the past two years, have you participated in professional development in any of the following? Improving students' critical thinking or problem solving skills		
TQM-09f	ATBM09F	In the past two years, have you participated in professional development in any of the following? Mathematics assessment	ATBM11E	
TQM-09g	ATBM09G	In the past two years, have you participated in professional development in any of the following? Addressing individual students' needs	ATBM11F	
TQM-10	ATBM10	In the past two years, how many hours in total have you spent in formal <in-service/professional development> for mathematics?		
TQM-11Aa	ATBM11AA	How well prepared do you feel you are to teach the following mathematics topics? Number: Concepts of whole numbers, including place value and ordering	See Question TQM-12 in 2011 for sub-topics.	
TQM-11Ab	ATBM11AB	How well prepared do you feel you are to teach the following mathematics topics? Number: Adding, subtracting, multiplying, and/or dividing with whole numbers	See Question TQM-12 in 2011 for sub-topics.	
TQM-11Ac	ATBM11AC	How well prepared do you feel you are to teach the following mathematics topics? Number: Concepts of multiples and factors; odd and even numbers	See Question TQM-12 in 2011 for sub-topics.	
TQM-11Ad	ATBM11AD	How well prepared do you feel you are to teach the following mathematics topics? Number: Concepts of fractions (fractions as parts of a whole or of a collection, or as a location on a number line)	See Question TQM-12 in 2011 for sub-topics.	
TQM-11Ae	ATBM11AE	How well prepared do you feel you are to teach the following mathematics topics? Number: Adding and subtracting with fractions, comparing and ordering fractions	See Question TQM-12 in 2011 for sub-topics.	
TQM-11Af	ATBM11AF	How well prepared do you feel you are to teach the following mathematics topics? Number: Concepts of decimals, including place value and ordering, adding and subtracting with decimals	See Question TQM-12 in 2011 for sub-topics.	
TQM-11Ag	ATBM11AG	How well prepared do you feel you are to teach the following mathematics topics? Number: Number sentences	See Question TQM-12 in 2011 for sub-topics.	

Exhibit S1.3: Index of International Background Variables for the TIMSS 2015 Teacher Questionnaire - Fourth Grade (Continued)

TIMSS 2015 Question Number	TIMSS 2015 Variable Name	TIMSS 2015 Variable Description (See questionnaire for full item text)	TIMSS 2011 Variable Name	Notes
TQM-11Ah	ATBM11AH	How well prepared do you feel you are to teach the following mathematics topics? Number: Number patterns	See Question TQM-12 in 2011 for sub-topics.	
TQM-11Ba	ATBM11BA	How well prepared do you feel you are to teach the following mathematics topics? Geometric Shapes and Measures: Lines: measuring, estimating length of; parallel and perpendicular lines	See Question TQM-12 in 2011 for sub-topics.	
TQM-11Bb	ATBM11BB	How well prepared do you feel you are to teach the following mathematics topics? Geometric Shapes and Measures: Comparing and drawing angles	See Question TQM-12 in 2011 for sub-topics.	
TQM-11Bc	ATBM11BC	How well prepared do you feel you are to teach the following mathematics topics? Geometric Shapes and Measures: Using informal coordinate systems to locate points in a plane	See Question TQM-12 in 2011 for sub-topics.	
TQM-11Bd	ATBM11BD	How well prepared do you feel you are to teach the following mathematics topics? Geometric Shapes and Measures: Elementary properties of common geometric shapes	See Question TQM-12 in 2011 for sub-topics.	
TQM-11Be	ATBM11BE	How well prepared do you feel you are to teach the following mathematics topics? Geometric Shapes and Measures: Reflections and rotations	See Question TQM-12 in 2011 for sub-topics.	
TQM-11Bf	ATBM11BF	How well prepared do you feel you are to teach the following mathematics topics? Geometric Shapes and Measures: Relationships between two-dimensional and three-dimensional shapes	See Question TQM-12 in 2011 for sub-topics.	
TQM-11Bg	ATBM11BG	How well prepared do you feel you are to teach the following mathematics topics? Geometric Shapes and Measures: Finding and estimating areas, perimeters, and volumes	See Question TQM-12 in 2011 for sub-topics.	
TQM-11Ca	ATBM11CA	How well prepared do you feel you are to teach the following mathematics topics? Data Display: Reading and representing data from tables, pictographs, bar graphs, or pie charts	See Question TQM-12 in 2011 for sub-topics.	
TQM-11Cb	ATBM11CB	How well prepared do you feel you are to teach the following mathematics topics? Data Display: Drawing conclusions from data displays	See Question TQM-12 in 2011 for sub-topics.	
TQS-01A	ATBS01A	Is science taught mainly as a separate subject (i.e., not integrated with other subjects) to the students in this class?	ATBS01A	
TQS-01B	ATBS01B	Please estimate the time that you spend on science topics with students in this class (minutes per week).	ATBS01BA ATBS01BB	Hours and minutes separate variables in 2011
TQS-02a	ATBS02A	In teaching science to this class, how would you characterize your confidence in doing the following? Inspiring students to learn science		
TQS-02b	ATBS02B	In teaching science to this class, how would you characterize your confidence in doing the following? Explaining science concepts or principles by doing science experiments		
TQS-02c	ATBS02C	In teaching science to this class, how would you characterize your confidence in doing the following? Providing challenging tasks for the highest achieving students		

Exhibit S1.3: Index of International Background Variables for the TIMSS 2015 Teacher Questionnaire - Fourth Grade (Continued)

TIMSS 2015 Question Number	TIMSS 2015 Variable Name	TIMSS 2015 Variable Description (See questionnaire for full item text)	TIMSS 2011 Variable Name	Notes
TQS-02d	ATBS02D	In teaching science to this class, how would you characterize your confidence in doing the following? Adapting my teaching to engage students' interest		
TQS-02e	ATBS02E	In teaching science to this class, how would you characterize your confidence in doing the following? Helping students appreciate the value of learning science		
TQS-02f	ATBS02F	In teaching science to this class, how would you characterize your confidence in doing the following? Assessing student comprehension of science		
TQS-02g	ATBS02G	In teaching science to this class, how would you characterize your confidence in doing the following? Improving the understanding of struggling students		
TQS-02h	ATBS02H	In teaching science to this class, how would you characterize your confidence in doing the following? Making science relevant to students		
TQS-02i	ATBS02I	In teaching science to this class, how would you characterize your confidence in doing the following? Developing students' higher-order thinking skills		
TQS-02j	ATBS02J	In teaching science to this class, how would you characterize your confidence in doing the following? Teaching science using inquiry methods		
TQS-03a	ATBS03A	In teaching science to the students in this class, how often do you ask them to do the following? Listen to me explain new science content		
TQS-03b	ATBS03B	In teaching science to the students in this class, how often do you ask them to do the following? Observe natural phenomena such as the weather or a plant growing and describe what they see	ATBS03A	Modified wording in 2015
TQS-03c	ATBS03C	In teaching science to the students in this class, how often do you ask them to do the following? Watch me demonstrate an experiment or investigation	ATBS03B	Modified wording in 2015
TQS-03d	ATBS03D	In teaching science to the students in this class, how often do you ask them to do the following? Design or plan experiments or investigations	ATBS03C	Modified wording in 2015
TQS-03e	ATBS03E	In teaching science to the students in this class, how often do you ask them to do the following? Conduct experiments or investigations	ATBS04D	Modified wording in 2015
TQS-03f	ATBS03F	In teaching science to the students in this class, how often do you ask them to do the following? Present data from experiments or investigations		
TQS-03g	ATBS03G	In teaching science to the students in this class, how often do you ask them to do the following? Interpret data from experiments or investigations		
TQS-03h	ATBS03H	In teaching science to the students in this class, how often do you ask them to do the following? Use evidence from experiments or investigations to support conclusions		
TQS-03i	ATBS03I	In teaching science to the students in this class, how often do you ask them to do the following? Read their textbooks or other resource materials	ATBS03E	Modified wording in 2015
TQS-03j	ATBS03J	In teaching science to the students in this class, how often do you ask them to do the following? Have students memorize facts and principles	ATBS03F	Modified wording in 2015
TQS-03k	ATBS03K	In teaching science to the students in this class, how often do you ask them to do the following? Do field work outside the class	ATBS03I	Modified wording in 2015
TQS-03l	ATBS03L	In teaching science to the students in this class, how often do you ask them to do the following? Take a written test or quiz	ATBS03J	Modified wording in 2015
TQS-03m	ATBS03M	In teaching science to the students in this class, how often do you ask them to do the following? Work in mixed ability groups		
TQS-03n	ATBS03N	In teaching science to the students in this class, how often do you ask them to do the following? Work in same ability groups		
TQS-04A	ATBS04A	Do the students in this class have computers (including tablets) available to use during their science lessons?	ATBS05A	Modified wording in 2015
TQS-04Ba	ATBS04BA	What access do the students have to computers? Each student has a computer		
TQS-04Bb	ATBS04BB	What access do the students have to computers? The class has computers that students can share		
TQS-04Bc	ATBS04BC	What access do the students have to computers? The school has computers that the class can use sometimes		

Exhibit S1.3: Index of International Background Variables for the TIMSS 2015 Teacher Questionnaire - Fourth Grade (Continued)

TIMSS 2015 Question Number	TIMSS 2015 Variable Name	TIMSS 2015 Variable Description (See questionnaire for full item text)	TIMSS 2011 Variable Name	Notes
TQS-04Ca	ATBS04CA	How often do you have the students do the following activities on computers during science lessons? Practice skills and procedures	ATBS05CA	Modified wording in 2015
TQS-04Cb	ATBS04CB	How often do you have the students do the following activities on computers during science lessons? Look up ideas and information	ATBS05CB	Modified wording in 2015
TQS-04Cc	ATBS04CC	How often do you have the students do the following activities on computers during science lessons? Do scientific procedures or experiments	ATBS05CC	Modified wording in 2015
TQS-04Cd	ATBS04CD	How often do you have the students do the following activities on computers during science lessons? Study natural phenomena through simulations	ATBS05CD	Modified wording in 2015
TQS-05Aa	ATBS05AA	When students in this class have been taught each of the following science topics. Life Science: Characteristics of living things and the major groups of living things	See Question TQS-06 in 2011 for sub-topics.	
TQS-05Ab	ATBS05AB	When students in this class have been taught each of the following science topics. Life Science: Major body structures and their functions in humans, other animals, and plants	See Question TQS-06 in 2011 for sub-topics.	
TQS-05Ac	ATBS05AC	When students in this class have been taught each of the following science topics. Life Science: Life cycles of common plants and animals	See Question TQS-06 in 2011 for sub-topics.	
TQS-05Ad	ATBS05AD	When students in this class have been taught each of the following science topics. Life Science: Understanding that some characteristics are inherited and some are the result of the environment	See Question TQS-06 in 2011 for sub-topics.	
TQS-05Ae	ATBS05AE	When students in this class have been taught each of the following science topics. Life Science: How physical features and behaviors help living things survive in their environments	See Question TQS-06 in 2011 for sub-topics.	
TQS-05Af	ATBS05AF	When students in this class have been taught each of the following science topics. Life Science: Relationships in communities and ecosystems (e.g., simple food chains, predator-prey relationships, human impacts on the environment)	See Question TQS-06 in 2011 for sub-topics.	
TQS-05Ag	ATBS05AG	When students in this class have been taught each of the following science topics. Life Science: Human health (transmission and prevention of diseases, symptoms of health and illness, importance of a healthy diet and exercise)	See Question TQS-06 in 2011 for sub-topics.	
TQS-05Ba	ATBS05BA	When students in this class have been taught each of the following science topics. Physical Science: States of matter (solid, liquid, gas) and properties of the states of matter (volume, shape); how the state of matter changes by heating or cooling	See Question TQS-06 in 2011 for sub-topics.	
TQS-05Bb	ATBS05BB	When students in this class have been taught each of the following science topics. Physical Science: Classifying materials based on physical properties (e.g., weight/mass, volume, conducting heat, conducting electricity, magnetic attraction)	See Question TQS-06 in 2011 for sub-topics.	
TQS-05Bc	ATBS05BC	When students in this class have been taught each of the following science topics. Physical Science: Mixtures and how to separate a mixture into its components	See Question TQS-06 in 2011 for sub-topics.	
TQS-05Bd	ATBS05BD	When students in this class have been taught each of the following science topics. Physical Science: Chemical changes in everyday life	See Question TQS-06 in 2011 for sub-topics.	

Exhibit S1.3: Index of International Background Variables for the TIMSS 2015 Teacher Questionnaire - Fourth Grade (Continued)

TIMSS 2015 Question Number	TIMSS 2015 Variable Name	TIMSS 2015 Variable Description (See questionnaire for full item text)	TIMSS 2011 Variable Name	Notes
TQS-05Be	ATBS05BE	When students in this class have been taught each of the following science topics. Physical Science: Common sources of energy and uses of energy	See Question TQS-06 in 2011 for sub-topics.	
TQS-05Bf	ATBS05BF	When students in this class have been taught each of the following science topics. Physical Science: Light and sound in everyday life	See Question TQS-06 in 2011 for sub-topics.	
TQS-05Bg	ATBS05BG	When students in this class have been taught each of the following science topics. Physical Science: Electricity and simple circuits	See Question TQS-06 in 2011 for sub-topics.	
TQS-05Bh	ATBS05BH	When students in this class have been taught each of the following science topics. Physical Science: Properties of magnets	See Question TQS-06 in 2011 for sub-topics.	
TQS-05Bi	ATBS05BI	When students in this class have been taught each of the following science topics. Physical Science: Forces that cause objects to move (e.g., gravity, pushing/pulling)	See Question TQS-06 in 2011 for sub-topics.	
TQS-05Ca	ATBS05CA	When students in this class have been taught each of the following science topics. Earth Science: Common features of the Earth's landscape and their relationship to human use	See Question TQS-06 in 2011 for sub-topics.	
TQS-05Cb	ATBS05CB	When students in this class have been taught each of the following science topics. Earth Science: Where water is found on the Earth and how it moves in and out of the air	See Question TQS-06 in 2011 for sub-topics.	
TQS-05Cc	ATBS05CC	When students in this class have been taught each of the following science topics. Earth Science: Understanding that weather can change from day to day, from season to season, and by geographic location	See Question TQS-06 in 2011 for sub-topics.	
TQS-05Cd	ATBS05CD	When students in this class have been taught each of the following science topics. Earth Science: Understanding what fossils are and what they can tell us about past conditions on Earth	See Question TQS-06 in 2011 for sub-topics.	
TQS-05Ce	ATBS05CE	When students in this class have been taught each of the following science topics. Earth Science: Objects in the solar system and their movements	See Question TQS-06 in 2011 for sub-topics.	
TQS-05Cf	ATBS05CF	When students in this class have been taught each of the following science topics. Earth Science: 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	See Question TQS-06 in 2011 for sub-topics.	
TQS-05Cg	ATBS05CG	When students in this class have been taught each of the following science topics. Earth Science: Understanding how seasons are related to the Earth's annual movement around the Sun	See Question TQS-06 in 2011 for sub-topics.	
TQS-06A	ATBS06A	How often do you usually assign science homework to the students in this class?	ATBS08A	
TQS-06B	ATBS06B	When you assign science homework to the students in this class, about how many minutes do you usually assign?	ATBS08B	
TQS-06Ca	ATBS06CA	How often do you do the following with the science homework assignments for this class? Correct assignments and give feedback to students	ATBS08CA	

Exhibit S1.3: Index of International Background Variables for the TIMSS 2015 Teacher Questionnaire - Fourth Grade (Continued)

TIMSS 2015 Question Number	TIMSS 2015 Variable Name	TIMSS 2015 Variable Description (See questionnaire for full item text)	TIMSS 2011 Variable Name	Notes
TQS-06Cb	ATBS06CB	How often do you do the following with the science homework assignments for this class? Discuss the homework in class	ATBS08CB	
TQS-06Cc	ATBS06CC	How often do you do the following with the science homework assignments for this class? Monitor whether or not the homework was completed	ATBS08CC	
TQS-07a	ATBS07A	How much emphasis do you place on the following sources to monitor students' progress in science? Assessment of students' ongoing work	ATBS09A	Modified wording in 2015
TQS-07b	ATBS07B	How much emphasis do you place on the following sources to monitor students' progress in science? Classroom tests	ATBS09B	
TQS-07c	ATBS07C	How much emphasis do you place on the following sources to monitor students' progress in science? National or regional achievement tests	ATBS09C	
TQS-08a	ATBS08A	In the past two years, have you participated in professional development in any of the following? Science content	ATBS10A	
TQS-08b	ATBS08B	In the past two years, have you participated in professional development in any of the following? Science pedagogy/instruction	ATBS10B	
TQS-08c	ATBS08C	In the past two years, have you participated in professional development in any of the following? Science curriculum	ATBS10C	
TQS-08d	ATBS08D	In the past two years, have you participated in professional development in any of the following? Integrating information technology into science	ATBS10D	
TQS-08e	ATBS08E	In the past two years, have you participated in professional development in any of the following? Improving students' critical thinking or inquiry skills	ATBS10E	
TQS-08f	ATBS08F	In the past two years, have you participated in professional development in any of the following? Science assessment	ATBS10F	
TQS-08g	ATBS08G	In the past two years, have you participated in professional development in any of the following? Addressing individual students' needs	ATBS10G	
TQS-08h	ATBS08H	In the past two years, have you participated in professional development in any of the following? Integrating science with other subjects	ATBS10H	
TQS-09	ATBS09	In the past two years, how many hours in total have you spent in formal <in-service/professional development> for science?	ATBS10I	
TQS-10Aa	ATBS10AA	How well prepared do you feel you are to teach the following science topics? Life Science: Characteristics of living things and the major groups of living things	See Question TQS-11 in 2011 for sub-topics.	
TQS-10Ab	ATBS10AB	How well prepared do you feel you are to teach the following science topics? Life Science: Major body structures and their functions in humans, other animals, and plants	See Question TQS-11 in 2011 for sub-topics.	
TQS-10Ac	ATBS10AC	How well prepared do you feel you are to teach the following science topics? Life Science: Life cycles of common plants and animals	See Question TQS-11 in 2011 for sub-topics.	
TQS-10Ad	ATBS10AD	How well prepared do you feel you are to teach the following science topics? Life Science: Understanding that some characteristics are inherited and some are the result of the environment	See Question TQS-11 in 2011 for sub-topics.	
TQS-10Ae	ATBS10AE	How well prepared do you feel you are to teach the following science topics? Life Science: How physical features and behaviors help living things survive in their environments	See Question TQS-11 in 2011 for sub-topics.	
TQS-10Af	ATBS10AF	How well prepared do you feel you are to teach the following science topics? Life Science: Relationships in communities and ecosystems (e.g., simple food chains, predator-prey relationships, human impacts on the environment)	See Question TQS-11 in 2011 for sub-topics.	

Exhibit S1.3: Index of International Background Variables for the TIMSS 2015 Teacher Questionnaire - Fourth Grade (Continued)

TIMSS 2015 Question Number	TIMSS 2015 Variable Name	TIMSS 2015 Variable Description (See questionnaire for full item text)	TIMSS 2011 Variable Name	Notes
TQS-10Ag	ATBS10AG	How well prepared do you feel you are to teach the following science topics? Life Science: Human health (transmission and prevention of diseases, symptoms of health and illness, importance of a healthy diet and exercise)	See Question TQS-11 in 2011 for sub-topics.	
TQS-10Ba	ATBS10BA	How well prepared do you feel you are to teach the following science topics? Physical Science: States of matter (solid, liquid, gas) and properties of the states of matter (volume, shape); how the state of matter changes by heating or cooling	See Question TQS-11 in 2011 for sub-topics.	
TQS-10Bb	ATBS10BB	How well prepared do you feel you are to teach the following science topics? Physical Science: Classifying materials based on physical properties (e.g., weight/mass, volume, conducting heat, conducting electricity, magnetic attraction)	See Question TQS-11 in 2011 for sub-topics.	
TQS-10Bc	ATBS10BC	How well prepared do you feel you are to teach the following science topics? Physical Science: Mixtures and how to separate a mixture into its components	See Question TQS-11 in 2011 for sub-topics.	
TQS-10Bd	ATBS10BD	How well prepared do you feel you are to teach the following science topics? Physical Science: Chemical changes in everyday life	See Question TQS-11 in 2011 for sub-topics.	
TQS-10Be	ATBS10BE	How well prepared do you feel you are to teach the following science topics? Physical Science: Common sources of energy and uses of energy	See Question TQS-11 in 2011 for sub-topics.	
TQS-10Bf	ATBS10BF	How well prepared do you feel you are to teach the following science topics? Physical Science: Light and sound in everyday life	See Question TQS-11 in 2011 for sub-topics.	
TQS-10Bg	ATBS10BG	How well prepared do you feel you are to teach the following science topics? Physical Science: Electricity and simple circuits	See Question TQS-11 in 2011 for sub-topics.	
TQS-10Bh	ATBS10BH	How well prepared do you feel you are to teach the following science topics? Physical Science: Properties of magnets	See Question TQS-11 in 2011 for sub-topics.	
TQS-10Bi	ATBS10BI	How well prepared do you feel you are to teach the following science topics? Physical Science: Forces that cause objects to move (e.g., gravity, pushing/pulling)	See Question TQS-11 in 2011 for sub-topics.	
TQS-10Ca	ATBS10CA	How well prepared do you feel you are to teach the following science topics? Earth Science: Common features of the Earth's landscape and their relationship to human use	See Question TQS-11 in 2011 for sub-topics.	
TQS-10Cb	ATBS10CB	How well prepared do you feel you are to teach the following science topics? Earth Science: Where water is found on the Earth and how it moves in and out of the air	See Question TQS-11 in 2011 for sub-topics.	
TQS-10Cc	ATBS10CC	How well prepared do you feel you are to teach the following science topics? Earth Science: Understanding that weather can change from day to day, from season to season, and by geographic location	See Question TQS-11 in 2011 for sub-topics.	

Exhibit S1.3: Index of International Background Variables for the TIMSS 2015 Teacher Questionnaire - Fourth Grade (Continued)

TIMSS 2015 Question Number	TIMSS 2015 Variable Name	TIMSS 2015 Variable Description (See questionnaire for full item text)	TIMSS 2011 Variable Name	Notes
TQS-10Cd	ATBS10CD	How well prepared do you feel you are to teach the following science topics? Earth Science: Understanding what fossils are and what they can tell us about past conditions on Earth	See Question TQS-11 in 2011 for sub-topics.	
TQS-10Ce	ATBS10CE	How well prepared do you feel you are to teach the following science topics? Earth Science: Objects in the solar system and their movements	See Question TQS-11 in 2011 for sub-topics.	
TQS-10Cf	ATBS10CF	How well prepared do you feel you are to teach the following science topics? Earth Science: 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	See Question TQS-11 in 2011 for sub-topics.	
TQS-10Cg	ATBS10CG	How well prepared do you feel you are to teach the following science topics? Earth Science: Understanding how seasons are related to the Earth's annual movement around the Sun	See Question TQS-11 in 2011 for sub-topics.	



Identification Label

TRENDS IN INTERNATIONAL MATHEMATICS AND SCIENCE STUDY

Teacher Questionnaire

<Grade 4>

<TIMSS National Research Center Name>
<Address>



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

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Teacher Questionnaire

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 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 2015

About You**G1**

ATBG01

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

ATBG02

Are you female or male?

Check one circle only.

- Female ---
Male ---

G3

ATBG03

How old are you?

Check one circle only.

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

G4

ATBG04

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?

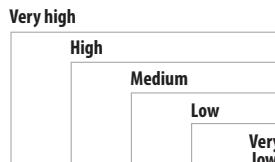
Check one circle for each line.

- | Yes | No | |
|---------------------------------------|-----------------------|----------|
| a) Education—Primary/Elementary ----- | <input type="radio"/> | ATBG05AA |
| b) Education—Secondary ----- | <input type="radio"/> | ATBG05AB |
| c) Mathematics ----- | <input type="radio"/> | ATBG05AC |
| d) Science ----- | <input type="radio"/> | ATBG05AD |
| e) <language of test> ----- | <input type="radio"/> | ATBG05AE |
| f) Other ----- | <input type="radio"/> | ATBG05AF |

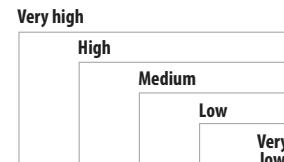
B. If your major or main area of study was education, did you have a <specialization> in any of the following?

Check one circle for each line.

- | Yes | No | |
|---------------------------|-----------------------|----------|
| a) Mathematics ----- | <input type="radio"/> | ATBG05BA |
| b) Science ----- | <input type="radio"/> | ATBG05BB |
| c) Language/reading ----- | <input type="radio"/> | ATBG05BC |
| d) Other subject ----- | <input type="radio"/> | ATBG05BD |

School Emphasis on Academic Success**G6****How would you characterize each of the following within your school?**Check **one** circle for each line.

- | | | | | | | |
|---------|-------------------------------------------------------------------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| ATBG06A | a) Teachers' understanding of the school's curricular goals ----- | <input type="radio"/> |
| ATBG06B | b) Teachers' degree of success in implementing the school's curriculum ----- | <input type="radio"/> |
| ATBG06C | c) Teachers' expectations for student achievement ----- | <input type="radio"/> |
| ATBG06D | d) Teachers working together to improve student achievement ----- | <input type="radio"/> |
| ATBG06E | e) Teachers' ability to inspire students ----- | <input type="radio"/> |
| ATBG06F | f) Parental involvement in school activities ----- | <input type="radio"/> |
| ATBG06G | g) Parental commitment to ensure that students are ready to learn ----- | <input type="radio"/> |
| ATBG06H | h) Parental expectations for student achievement ----- | <input type="radio"/> |
| ATBG06I | i) Parental support for student achievement ----- | <input type="radio"/> |
| ATBG06J | j) Parental pressure for the school to maintain high academic standards ----- | <input type="radio"/> |

Check **one** circle for each line.

- | | | | | | | |
|------------------------------------------------------------------------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|---------|
| k) Students' desire to do well in school ----- | <input type="radio"/> | ATBG06K |
| l) Students' ability to reach school's academic goals ----- | <input type="radio"/> | ATBG06L |
| m) Students' respect for classmates who excel in school ----- | <input type="radio"/> | ATBG06M |
| n) Clarity of the school's educational objectives ----- | <input type="radio"/> | ATBG06N |
| o) Collaboration between school leadership and teachers to plan instruction ----- | <input type="radio"/> | ATBG06O |
| p) Amount of instructional support provided to teachers by school leadership ----- | <input type="radio"/> | ATBG06P |
| q) School leadership's support for teachers' professional development ----- | <input type="radio"/> | ATBG06Q |

School Environment**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

- | | | |
|---------|---------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------|
| ATBG07A | a) This school is located in a safe neighborhood ----- | <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> |
| ATBG07B | b) I feel safe at this school ----- | <input type="radio"/> <input checked="" type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> |
| ATBG07C | c) This school's security policies and practices are sufficient ----- | <input type="radio"/> <input checked="" type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> |
| ATBG07D | d) The students behave in an orderly manner ----- | <input type="radio"/> <input checked="" type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> |
| ATBG07E | e) The students are respectful of the teachers ----- | <input type="radio"/> <input checked="" type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> |
| ATBG07F | f) The students respect school property ----- | <input type="radio"/> <input checked="" type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> |
| ATBG07G | g) This school has clear rules about student conduct ----- | <input type="radio"/> <input checked="" type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> |
| ATBG07H | h) This school's rules are enforced in a fair and consistent manner ----- | <input type="radio"/> <input checked="" type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> |

G8

In your current school, how severe is each problem?

Check **one** circle for each line.

Not a problem

Minor problem

Moderate problem

Serious problem

- a) The school building needs significant repair -----

ATBG08A

- b) Teachers do not have adequate workspace (e.g., for preparation, collaboration, or meeting with students) -----

ATBG08B

- c) Teachers do not have adequate instructional materials and supplies -----

ATBG08C

- d) The school classrooms are not cleaned often enough -----

ATBG08D

- e) The school classrooms need maintenance work -----

ATBG08E

- f) Teachers do not have adequate technological resources -----

ATBG08F

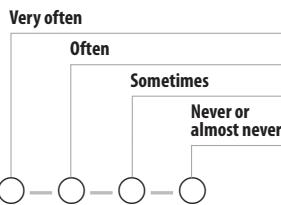
- g) Teachers do not have adequate support for using technology -----

ATBG08G

About Being a Teacher**G9**

How often do you have the following types of interactions with other teachers?

Check **one** circle for each line.



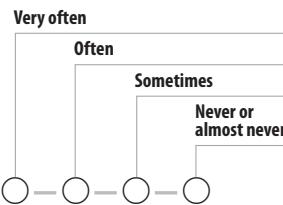
ATBG09A

- a) Discuss how to teach a particular topic -----
- b) Collaborate in planning and preparing instructional materials -----
- c) Share what I have learned about my teaching experiences -----
- d) Visit another classroom to learn more about teaching -
- e) Work together to try out new ideas -----
- f) Work as a group on implementing the curriculum -----
- g) Work with teachers from other grades to ensure continuity in learning -----

G10

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

Check **one** circle for each line.



ATBG09B

- a) I am content with my profession as a teacher -----
- b) I am satisfied with being a teacher at this school -----
- c) I find my work full of meaning and purpose -----
- d) I am enthusiastic about my job -----
- e) My work inspires me -----
- f) I am proud of the work I do ---
- g) I am going to continue teaching for as long as I can ---

ATBG09C

ATBG09D

ATBG09E

ATBG09F

ATBG09G

ATBG10A

ATBG10B

ATBG10C

ATBG10D

ATBG10E

ATBG10F

ATBG10G

**About Teaching the
TIMSS Class****G11**

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

Check **one** circle for each line.



- | | | | | | |
|---------|---------------------------------------------------------------------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| ATBG11A | a) There are too many students in the classes ----- | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| ATBG11B | b) I have too much material to cover in class ----- | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| ATBG11C | c) I have too many teaching hours ----- | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| ATBG11D | d) I need more time to prepare for class ----- | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| ATBG11E | e) I need more time to assist individual students ----- | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| ATBG11F | f) I feel too much pressure from parents ----- | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| ATBG11G | 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"/> |
| ATBG11H | h) I have too many administrative tasks ----- | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

G12

A. How many students are in this class?

ATBG12A

_____ students
Write in the number.

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

ATBG12B

_____ <fourth grade> students
Write in the number.

G13

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

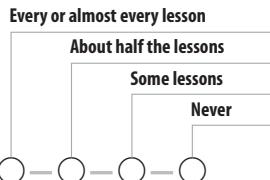
ATBG13

_____ students in this class
Write in the number.

G14

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

Check **one** circle for each line.



- | | | | | | |
|---------|--------------------------------------------------------------------------------------------------------|-----------------------|----------------------------------|-----------------------|-----------------------|
| ATBG14A | a) Relate the lesson to students' daily lives ----- | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| ATBG14B | b) Ask students to explain their answers ----- | <input type="radio"/> | <input checked="" type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| ATBG14C | c) Bring interesting materials to class ----- | <input type="radio"/> | <input checked="" type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| ATBG14D | d) Ask students to complete challenging exercises that require them to go beyond the instruction ----- | <input type="radio"/> | <input checked="" type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| ATBG14E | e) Encourage classroom discussions among students ----- | <input type="radio"/> | <input checked="" type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| ATBG14F | f) Link new content to students' prior knowledge ---- | <input type="radio"/> | <input checked="" type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| ATBG14G | g) Ask students to decide their own problem solving procedures ----- | <input type="radio"/> | <input checked="" type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| ATBG14H | h) Encourage students to express their ideas in class ---- | <input type="radio"/> | <input checked="" type="radio"/> | <input type="radio"/> | <input type="radio"/> |

G15

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

Check **one** circle for each line.



- | | | | | |
|-------------------------------------------------------------------------|-----------------------|----------------------------------|-----------------------|---------|
| a) Students lacking prerequisite knowledge or skills ----- | <input type="radio"/> | <input checked="" type="radio"/> | <input type="radio"/> | ATBG15A |
| b) Students suffering from lack of basic nutrition ----- | <input type="radio"/> | <input checked="" type="radio"/> | <input type="radio"/> | ATBG15B |
| c) Students suffering from not enough sleep ----- | <input type="radio"/> | <input checked="" type="radio"/> | <input type="radio"/> | ATBG15C |
| d) Disruptive students ----- | <input type="radio"/> | <input checked="" type="radio"/> | <input type="radio"/> | ATBG15D |
| e) Uninterested students ----- | <input type="radio"/> | <input checked="" type="radio"/> | <input type="radio"/> | ATBG15E |
| f) Students with physical disabilities ----- | <input type="radio"/> | <input checked="" type="radio"/> | <input type="radio"/> | ATBG15F |
| g) Students with mental, emotional, or psychological disabilities ----- | <input type="radio"/> | <input checked="" type="radio"/> | <input type="radio"/> | ATBG15G |

Teaching Mathematics to the TIMSS Class**M1**

ATBM01

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

_____ minutes per week

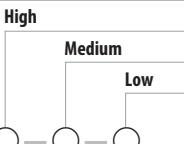
Write in the number of minutes per week.

Please convert the number of hours into minutes.

M2**In teaching mathematics to this class, how would you characterize your confidence in doing the following?**

Check one circle for each line.

Very high



ATBM02A

a) Inspiring students to learn mathematics -----

ATBM02B

b) Showing students a variety of problem solving strategies -----

ATBM02C

c) Providing challenging tasks for the highest achieving students -----

ATBM02D

d) Adapting my teaching to engage students' interest -----

ATBM02E

e) Helping students appreciate the value of learning mathematics -----

ATBM02F

f) Assessing student comprehension of mathematics -----

ATBM02G

g) Improving the understanding of struggling students -----

ATBM02H

h) Making mathematics relevant to students -----

ATBM02I

i) Developing students' higher-order thinking skills ----- **M3****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 -----

ATBM03A

b) Listen to me explain how to solve problems -----

ATBM03B

c) Memorize rules, procedures, and facts -----

ATBM03C

d) Work problems (individually or with peers) with my guidance -----

ATBM03D

e) Work problems together in the whole class with direct guidance from me -----

ATBM03E

f) Work problems (individually or with peers) while I am occupied by other tasks -----

ATBM03F

g) Take a written test or quiz -----

ATBM03G

h) Work in mixed ability groups --

ATBM03H

i) Work in same ability groups --

ATBM03I

Using Calculators and Computers for Teaching Mathematics to the TIMSS Class

M4

ATBM04

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 ---

M5

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 #M6)

ATBM05A

If Yes,

B. What access do the students have to computers?

Check one circle for each line.

Yes	No
<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>

ATBM05BA

ATBM05BB

ATBM05BC

C. How often do you have the students do the following activities on computers during mathematics lessons?

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

ATBM06CA

ATBM06CB

ATBM06CC

- | | | | | |
|------------------------------------------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| a) Explore mathematics principles and concepts ----- | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| b) Practice skills and procedures - | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| c) Look up ideas and information ----- | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

Mathematics Topics Taught to the TIMSS Class**M6**

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**

- ATBM06AA a) Concepts of whole numbers, including place value and ordering -----
- ATBM06AB b) Adding, subtracting, multiplying, and/or dividing with whole numbers -----
- ATBM06AC c) Concepts of multiples and factors; odd and even numbers -----
- ATBM06AD d) Concepts of fractions (fractions as parts of a whole or of a collection, or as a location on a number line) -----
- ATBM06AE e) Adding and subtracting with fractions, comparing and ordering fractions -----
- ATBM06AF f) Concepts of decimals, including place value and ordering, adding and subtracting with decimals -----
- ATBM06AG g) Number sentences (finding the missing number, modeling simple situations with number sentences) -----
- ATBM06AH h) Number patterns (extending number patterns and finding missing terms) -----

B. Geometric Shapes and Measures

- ATBM06BA a) Lines: measuring, estimating length of; parallel and perpendicular lines -----
- ATBM06BB b) Comparing and drawing angles -----
- ATBM06BC c) Using informal coordinate systems to locate points in a plane (e.g., in square B4) -----
- ATBM06BD d) Elementary properties of common geometric shapes -----
- ATBM06BE e) Reflections and rotations -----
- ATBM06BF f) Relationships between two-dimensional and three-dimensional shapes -----
- ATBM06BG g) Finding and estimating areas, perimeters, and volumes -----

C. Data Display

- ATBM06CA a) Reading and representing data from tables, pictographs, bar graphs, or pie charts -----
- ATBM06CB b) Drawing conclusions from data displays -----

Mathematics Homework for the TIMSS Class**M7**

ATBM07A

- 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 #M8)

Less than once a week ---

1 or 2 times a week ---

3 or 4 times a week ---

Every day ---

ATBM07B

- 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.**Always or almost always*

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

Mathematics Assessment of the TIMSS Class**M8**

- How much emphasis do you place on the following sources to monitor students' progress in mathematics?**

*Check one circle for each line.**Major emphasis**Some emphasis**Little or no emphasis*

- a) Assessment of students' ongoing work -----
- b) Classroom tests (for example, teacher-made or textbook tests) -----
- c) National or regional achievement tests -----

ATBM08A

ATBM08B

ATBM08C

Preparation to Teach Mathematics**M9**

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

Check **one** circle for each line.



- ATBM09A a) Mathematics content ----- —
ATBM09B b) Mathematics pedagogy/instruction ----- —
ATBM09C c) Mathematics curriculum ----- —
ATBM09D d) Integrating information technology into mathematics ----- —
ATBM09E e) Improving students' critical thinking or problem solving skills ----- —
ATBM09F f) Mathematics assessment ----- —
ATBM09G g) Addressing individual students' needs ----- —

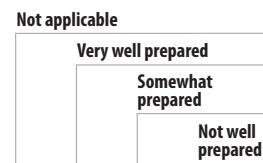
M10

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.

ATBM10

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

M11**How well prepared do you feel you are to teach the following mathematics topics?****If a topic is not in the <fourth grade> curriculum or you are not responsible for teaching this topic, please choose "Not applicable."***Check one circle for each line.***A. Number**

- ATBM11AA a) Concepts of whole numbers, including place value and ordering -----
- ATBM11AB b) Adding, subtracting, multiplying, and/or dividing with whole numbers -----
- ATBM11AC c) Concepts of multiples and factors; odd and even numbers -----
- ATBM11AD d) Concepts of fractions (fractions as parts of a whole or of a collection, or as a location on a number line) -----
- ATBM11AE e) Adding and subtracting with fractions, comparing and ordering fractions -----
- ATBM11AF f) Concepts of decimals, including place value and ordering, adding and subtracting with decimals -----
- ATBM11AG g) Number sentences (finding the missing number, modeling simple situations with number sentences) -----
- ATBM11AH h) Number patterns (extending number patterns and finding missing terms) -----

B. Geometric Shapes and Measures

- ATBM11BA a) Lines: measuring, estimating length of; parallel and perpendicular lines -----
- ATBM11BB b) Comparing and drawing angles -----
- ATBM11BC c) Using informal coordinate systems to locate points in a plane (e.g., in square B4) -----
- ATBM11BD d) Elementary properties of common geometric shapes -----
- ATBM11BE e) Reflections and rotations -----
- ATBM11BF f) Relationships between two-dimensional and three-dimensional shapes -----
- ATBM11BG g) Finding and estimating areas, perimeters, and volumes -----

C. Data Display

- ATBM11CA a) Reading and representing data from tables, pictographs, bar graphs, or pie charts -----
- ATBM11CB b) Drawing conclusions from data displays -----

Teaching Science to the TIMSS Class**S1**

ATBS01A

- 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.

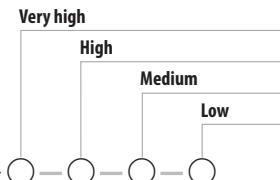
Yes ---
No ---

ATBS01B

- 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 this class, how would you characterize your confidence in doing the following?**

Check one circle for each line.

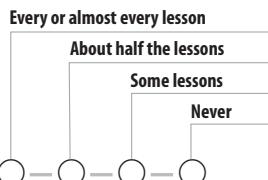
- | | | |
|---------------------------------------------------------------------------------|-----------------------|---------|
| a) Inspiring students to learn science ----- | <input type="radio"/> | ATBS02A |
| b) Explaining science concepts or principles by doing science experiments ----- | <input type="radio"/> | ATBS02B |
| c) Providing challenging tasks for the highest achieving students ----- | <input type="radio"/> | ATBS02C |
| d) Adapting my teaching to engage students' interest ----- | <input type="radio"/> | ATBS02D |
| e) Helping students appreciate the value of learning science ----- | <input type="radio"/> | ATBS02E |
| f) Assessing student comprehension of science ----- | <input type="radio"/> | ATBS02F |
| g) Improving the understanding of struggling students ----- | <input type="radio"/> | ATBS02G |
| h) Making science relevant to students ----- | <input type="radio"/> | ATBS02H |
| i) Developing students' higher-order thinking skills ----- | <input type="radio"/> | ATBS02I |
| j) Teaching science using inquiry methods ----- | <input type="radio"/> | ATBS02J |

Using Computers for Teaching Science to the TIMSS Class

S3

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.



- | | | |
|---------|------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------|
| ATBS03A | a) Listen to me explain new science content ----- | <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> |
| ATBS03B | b) Observe natural phenomena such as the weather or a plant growing and describe what they see ----- | <input type="radio"/> <input checked="" type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> |
| ATBS03C | c) Watch me demonstrate an experiment or investigation ----- | <input type="radio"/> <input checked="" type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> |
| ATBS03D | d) Design or plan experiments or investigations ----- | <input type="radio"/> <input checked="" type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> |
| ATBS03E | e) Conduct experiments or investigations ----- | <input type="radio"/> <input checked="" type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> |
| ATBS03F | f) Present data from experiments or investigations ----- | <input type="radio"/> <input checked="" type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> |
| ATBS03G | g) Interpret data from experiments or investigations ----- | <input type="radio"/> <input checked="" type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> |
| ATBS03H | h) Use evidence from experiments or investigations to support conclusions ----- | <input type="radio"/> <input checked="" type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> |
| ATBS03I | i) Read their textbooks or other resource materials ----- | <input type="radio"/> <input checked="" type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> |
| ATBS03J | j) Have students memorize facts and principles ----- | <input type="radio"/> <input checked="" type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> |
| ATBS03K | k) Do field work outside the class ----- | <input type="radio"/> <input checked="" type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> |
| ATBS03L | l) Take a written test or quiz ----- | <input type="radio"/> <input checked="" type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> |
| ATBS03M | m) Work in mixed ability groups -- | <input type="radio"/> <input checked="" type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> |
| ATBS03N | n) Work in same ability groups -- | <input type="radio"/> <input checked="" type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> |

S4

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

Check one circle only.

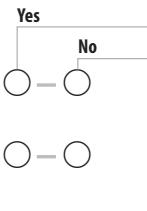
- Yes ---
No ---
- (If No, go to #S5)

ATBS04A

If Yes,

B. What access do the students have to computers?

Check one circle for each line.



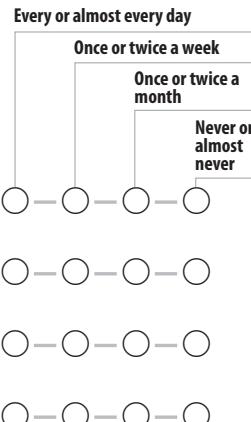
ATBS04BA

ATBS04BB

ATBS04BC

C. How often do you have the students do the following activities on computers during science lessons?

Check one circle for each line.



ATBS04CA

ATBS04CB

ATBS04CC

ATBS04CD

Science Topics Taught to the TIMSS Class**S5**

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.**Mostly taught before this year****Mostly taught this year****Not yet taught or just introduced****A. Life Science**

- ATBS05AA a) Characteristics of living things and the major groups of living things (e.g., mammals, birds, insects, flowering plants) -----
- ATBS05AB b) Major body structures and their functions in humans, other animals, and plants -----
- ATBS05AC c) Life cycles of common plants and animals (e.g., humans, butterflies, frogs, flowering plants) -----
- ATBS05AD d) Understanding that some characteristics are inherited and some are the result of the environment -----
- ATBS05AE e) How physical features and behaviors help living things survive in their environments -----
- ATBS05AF f) Relationships in communities and ecosystems (e.g., simple food chains, predator-prey relationships, human impacts on the environment) -----
- ATBS05AG g) Human health (transmission and prevention of diseases, symptoms of health and illness, importance of a healthy diet and exercise) -----

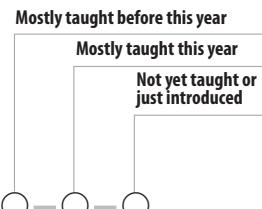
B. Physical Science

- ATBS05BA a) States of matter (solid, liquid, gas) and properties of the states of matter (volume, shape); how the state of matter changes by heating or cooling -----
- ATBS05BB b) Classifying materials based on physical properties (e.g., weight/mass, volume, conducting heat, conducting electricity, magnetic attraction) -----
- ATBS05BC c) Mixtures and how to separate a mixture into its components (e.g., sifting, filtering, evaporation, using a magnet) -----
- ATBS05BD d) Chemical changes in everyday life (e.g., decaying, burning, rusting, cooking) -----
- ATBS05BE e) Common sources of energy (e.g., the Sun, electricity, wind) and uses of energy (heating and cooling homes, providing light) -----
- ATBS05BF f) Light and sound in everyday life (e.g., understanding shadows and reflection, understanding that vibrating objects make sound) -----
- ATBS05BG g) Electricity and simple circuits (e.g., identifying materials that are conductors, recognizing that electricity can be changed to light or sound, knowing that a circuit must be complete to work correctly) -----
- ATBS05BH h) Properties of magnets (e.g., knowing that like poles repel and opposite poles attract, recognizing that magnets can attract some objects) -----
- ATBS05BI i) Forces that cause objects to move (e.g., gravity, pushing/pulling) -----

S5 (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**

ATBS05CA

- 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) -----

ATBS05CB

- 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) -----

ATBS05CC

- c) Understanding that weather can change from day to day, from season to season, and by geographic location -----

ATBS05CD

- d) Understanding what fossils are and what they can tell us about past conditions on Earth-----

ATBS05CE

- 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)-----

ATBS05CF

- 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 -----

ATBS05CG

- g) Understanding how seasons are related to the Earth's annual movement around the Sun -----

**Science Homework
for the TIMSS Class****S6**

ATBS06A

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 #S7)
- Less than once a week ---
- 1 or 2 times a week ---
- 3 or 4 times a week ---
- Every day ---

ATBS06B

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 -----

**Science Assessment
of the TIMSS Class****S7****How much emphasis do you place on the following sources to monitor students' progress in science?***Check one circle for each line.**Major emphasis**Some emphasis**Little or no emphasis*

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

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

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

ATBS07A

ATBS07B

ATBS07C

<p>ATBS06A</p> <p>A. How often do you usually assign science homework to the students in this class?</p> <p><i>Check one circle only.</i></p> <p>I do not assign science homework --- <input type="radio"/>  (Go to #S7)</p> <p>Less than once a week --- <input type="radio"/></p> <p>1 or 2 times a week --- <input type="radio"/></p> <p>3 or 4 times a week --- <input type="radio"/></p> <p>Every day --- <input type="radio"/></p>	<p>ATBS07A</p> <p>How much emphasis do you place on the following sources to monitor students' progress in science?</p> <p><i>Check one circle for each line.</i></p> <p>Major emphasis</p> <p>Some emphasis</p> <p>Little or no emphasis</p> <p>a) Assessment of students' ongoing work ----- <input type="radio"/> <input type="radio"/> <input type="radio"/></p>
<p>ATBS06B</p> <p>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.)</p> <p><i>Check one circle only.</i></p> <p>15 minutes or less --- <input type="radio"/></p> <p>16–30 minutes --- <input type="radio"/></p> <p>31–60 minutes --- <input type="radio"/></p> <p>More than 60 minutes --- <input type="radio"/></p>	<p>ATBS07B</p> <p>b) Classroom tests (for example, teacher-made or textbook tests) ----- <input type="radio"/> <input type="radio"/> <input type="radio"/></p>
<p>ATBS06CA</p> <p>C. How often do you do the following with the science homework assignments for this class?</p> <p><i>Check one circle for each line.</i></p> <p>Always or almost always</p> <p>Sometimes</p> <p>Never or almost never</p> <p>a) Correct assignments and give feedback to students ----- <input type="radio"/> <input type="radio"/> <input type="radio"/></p>	<p>ATBS07C</p> <p>c) National or regional achievement tests ----- <input type="radio"/> <input type="radio"/> <input type="radio"/></p>
<p>ATBS06CB</p> <p>a) Correct assignments and give feedback to students ----- <input type="radio"/> <input type="radio"/> <input type="radio"/></p>	
<p>ATBS06CC</p> <p>b) Discuss the homework in class ----- <input type="radio"/> <input type="radio"/> <input type="radio"/></p>	
<p>c) Monitor whether or not the homework was completed ----- <input type="radio"/> <input type="radio"/> <input type="radio"/></p>	

**IEA**

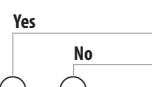
TIMSS & PIRLS
 International Study Center
 Lynch School of Education, Boston College

SUPPLEMENT 1: INTERNATIONAL VERSION OF THE
 TIMSS 2015 CONTEXT QUESTIONNAIRES
TIMSS 2015 USER GUIDE FOR THE INTERNATIONAL DATABASE

Preparation to Teach Science**S8**

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

Check one circle for each line.



- ATBS08A a) Science content ----- —
ATBS08B b) Science pedagogy/instruction ----- —
ATBS08C c) Science curriculum ----- —
ATBS08D d) Integrating information technology into science ----- —
ATBS08E e) Improving students' critical thinking or inquiry skills ----- —
ATBS08F f) Science assessment ----- —
ATBS08G g) Addressing individual students' needs ----- —
ATBS08H h) Integrating science with other subjects (e.g., mathematics, technology) ----- —

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 ---

ATBS09

S10**How well prepared do you feel you are to teach the following science topics?****If a topic is not in the <fourth grade> curriculum or you are not responsible for teaching this topic, please choose "Not applicable."**Check **one** circle for each line.**A. Life Science**

- ATBS10AA a) Characteristics of living things and the major groups of living things (e.g., mammals, birds, insects, flowering plants) -----
- ATBS10AB b) Major body structures and their functions in humans, other animals, and plants -----
- ATBS10AC c) Life cycles of common plants and animals (e.g., humans, butterflies, frogs, flowering plants) -----
- ATBS10AD d) Understanding that some characteristics are inherited and some are the result of the environment -----
- ATBS10AE e) How physical features and behaviors help living things survive in their environments -----
- ATBS10AF f) Relationships in communities and ecosystems (e.g., simple food chains, predator-prey relationships, human impacts on the environment) -----
- ATBS10AG g) Human health (transmission and prevention of diseases, symptoms of health and illness, importance of a healthy diet and exercise) -----

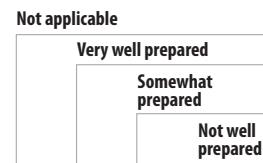
B. Physical Science

- ATBS10BA a) States of matter (solid, liquid, gas) and properties of the states of matter (volume, shape); how the state of matter changes by heating or cooling -----
- ATBS10BB b) Classifying materials based on physical properties (e.g., weight/mass, volume, conducting heat, conducting electricity, magnetic attraction) -----
- ATBS10BC c) Mixtures and how to separate a mixture into its components (e.g., sifting, filtering, evaporation, using a magnet) -----
- ATBS10BD d) Chemical changes in everyday life (e.g., decaying, burning, rusting, cooking) -----
- ATBS10BE e) Common sources of energy (e.g., the Sun, electricity, wind) and uses of energy (heating and cooling homes, providing light) -----
- ATBS10BF f) Light and sound in everyday life (e.g., understanding shadows and reflection, understanding that vibrating objects make sound) -----
- ATBS10BG g) Electricity and simple circuits (e.g., identifying materials that are conductors, recognizing that electricity can be changed to light or sound, knowing that a circuit must be complete to work correctly) -----
- ATBS10BH h) Properties of magnets (e.g., knowing that like poles repel and opposite poles attract, recognizing that magnets can attract some objects) -----
- ATBS10BI i) Forces that cause objects to move (e.g., gravity, pushing/pulling) -----

S10 (continued)

How well prepared do you feel you are to teach the following science topics?
If a topic is not in the <fourth grade> curriculum or you are not responsible for teaching this topic, please choose “Not applicable.”

Check **one** circle for each line.

**C. Earth Science**

- ATBS10CA 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) -----
- ATBS10CB 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) -----
- ATBS10CC c) Understanding that weather can change from day to day, from season to season, and by geographic location -----
- ATBS10CD d) Understanding what fossils are and what they can tell us about past conditions on Earth-----
- ATBS10CE 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)-----
- ATBS10CF 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 -----
- ATBS10CG g) Understanding how seasons are related to the Earth's annual movement around the Sun -----

Thank You

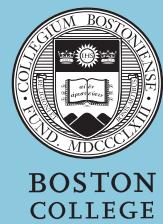
**Thank you for the thought, time, and effort you have
put into completing this questionnaire.**



TRENDS IN INTERNATIONAL MATHEMATICS AND SCIENCE STUDY

Teacher Questionnaire

<Grade 4>



BOSTON
COLLEGE



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TIMSS
2015

SECTION 4: FOURTH GRADE – SCHOOL QUESTIONNAIRE

TIMSS 2015 USER GUIDE FOR THE
INTERNATIONAL DATABASE



TIMSS & PIRLS
International Study Center
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Exhibit S1.4: Index of International Background Variables for the TIMSS 2015 School Questionnaire - Fourth Grade

TIMSS 2015 Question Number	TIMSS 2015 Variable Name	TIMSS 2015 Variable Description (See questionnaire for full item text)	TIMSS 2011 Variable Name	Notes
ScQ-01	ACBG01	What is the total enrollment of students in your school as of <first day of month TIMSS testing begins, 2015>?	ACBG01	Combined with PIRLS in 2011
ScQ-02	ACBG02	What is the total enrollment of <fourth grade> students in your school as of <first day of month TIMSS testing begins, 2015>?	ACBG02	Combined with PIRLS in 2011
ScQ-03a	ACBG03A	Approximately what percentage of students in your school have the following backgrounds? Come from economically disadvantaged homes	ACBG03A	
ScQ-03b	ACBG03B	Approximately what percentage of students in your school have the following backgrounds? Come from economically affluent homes	ACBG03B	
ScQ-04	ACBG04	Approximately what percentage of students in your school have <language of test> as their native language?	ACBG04	
ScQ-05A	ACBG05A	How many people live in the city, town, or area where your school is located?	ACBG05A	Modified response options in 2015
ScQ-05B	ACBG05B	Which best describes the immediate area in which your school is located?	ACBG05B	
ScQ-06a	ACBG06A	Does your school provide free meals for students? Breakfast		
ScQ-06b	ACBG06B	Does your school provide free meals for students? Lunch		
ScQ-07a	ACBG07A	To what degree are the following health topics emphasized in your school? Washing hands		
ScQ-07b	ACBG07B	To what degree are the following health topics emphasized in your school? Brushing teeth		
ScQ-07c	ACBG07C	To what degree are the following health topics emphasized in your school? A healthy diet/nutrition		
ScQ-07d	ACBG07D	To what degree are the following health topics emphasized in your school? Disease prevention		
ScQ-08A	ACBG08A	For the <fourth grade> students in your school: How many days per year is your school open for instruction?	ACBG06A	
ScQ-08B	ACBG08B	For the <fourth grade> students in your school: What is the total instructional time, excluding breaks, in a typical day? (minutes)	ACBG06BA ACBG06BB	Hours and minutes separate variables in 2011
ScQ-08C	ACBG08C	For the <fourth grade> students in your school: In one calendar week, how many days is the school open for instruction?	ACBG06C	
ScQ-09A	ACBG09A	Does your school provide a place where students can work on their schoolwork before or after school?		
ScQ-09B	ACBG09B	(If Yes) Is someone available to assist them with their schoolwork?		
ScQ-10a	ACBG10A	As a general school policy, is student achievement used to assign <fourth grade> students to classes? For mathematics classes		
ScQ-10b	ACBG10B	As a general school policy, is student achievement used to assign <fourth grade> students to classes? For science classes		
ScQ-11	ACBG11	How many computers (including tablets) does your school have for use by <fourth grade> students?	ACBG07	Modified wording in 2015
ScQ-12A	ACBG12A	Does your school have a science laboratory that can be used by <fourth grade> students?	ACBG08A	
ScQ-12B	ACBG12B	Do teachers usually have assistance available when students are conducting science experiments?		
ScQ-13	ACBG13	Does your school have a school library?	ACBG09	
ScQ-13Aa	ACBG13AA	Approximately how many books (print and digital) with different titles does your school library have? Print	ACBG09A	Modified wording and response options in 2015
ScQ-13Ab	ACBG13AB	Approximately how many books (print and digital) with different titles does your school library have? Digital		
ScQ-13Ba	ACBG13BA	Approximately how many titles of magazines and other periodicals (print and digital) does your school library have? Print	ACBG09B	Modified wording and response options in 2015

Exhibit S1.4: Index of International Background Variables for the TIMSS 2015 School Questionnaire - Fourth Grade (Continued)

TIMSS 2015 Question Number	TIMSS 2015 Variable Name	TIMSS 2015 Variable Description (See questionnaire for full item text)	TIMSS 2011 Variable Name	Notes
ScQ-13Bb	ACBG13BB	Approximately how many titles of magazines and other periodicals (print and digital) does your school library have? Digital		
ScQ-14Aa	ACBG14AA	How much is your school's capacity to provide instruction affected by a shortage or inadequacy of the following? General School Resources: Instructional materials	ACBG10AA	
ScQ-14Ab	ACBG14AB	How much is your school's capacity to provide instruction affected by a shortage or inadequacy of the following? General School Resources: Supplies (e.g., papers, pencils, materials)	ACBG10AB	Modified wording in 2015
ScQ-14Ac	ACBG14AC	How much is your school's capacity to provide instruction affected by a shortage or inadequacy of the following? General School Resources: School buildings and grounds	ACBG10AC	
ScQ-14Ad	ACBG14AD	How much is your school's capacity to provide instruction affected by a shortage or inadequacy of the following? General School Resources: Heating/cooling and lighting systems	ACBG10AD	
ScQ-14Ae	ACBG14AE	How much is your school's capacity to provide instruction affected by a shortage or inadequacy of the following? General School Resources: Instructional space	ACBG10AE	
ScQ-14Af	ACBG14AF	How much is your school's capacity to provide instruction affected by a shortage or inadequacy of the following? General School Resources: Technologically competent staff	ACBG10AF	
ScQ-14Ag	ACBG14AG	How much is your school's capacity to provide instruction affected by a shortage or inadequacy of the following? General School Resources: Audio-visual resources for delivery of instruction		
ScQ-14Ah	ACBG14AH	How much is your school's capacity to provide instruction affected by a shortage or inadequacy of the following? General School Resources: Computer technology for teaching and learning		
ScQ-14Ai	ACBG14AI	How much is your school's capacity to provide instruction affected by a shortage or inadequacy of the following? General School Resources: Resources for students with disabilities		
ScQ-14Ba	ACBG14BA	How much is your school's capacity to provide instruction affected by a shortage or inadequacy of the following? Resources for Mathematics Instruction: Teachers with a specialization in mathematics	ACBG10CA	
ScQ-14Bb	ACBG14BB	How much is your school's capacity to provide instruction affected by a shortage or inadequacy of the following? Resources for Mathematics Instruction: Computer software/applications for mathematics instruction	ACBG10CB	Modified wording in 2015
ScQ-14Bc	ACBG14BC	How much is your school's capacity to provide instruction affected by a shortage or inadequacy of the following? Resources for Mathematics Instruction: Library resources relevant to mathematics instruction	ACBG10CC	Modified wording in 2015
ScQ-14Bd	ACBG14BD	How much is your school's capacity to provide instruction affected by a shortage or inadequacy of the following? Resources for Mathematics Instruction: Calculators for mathematics instruction	ACBG10CE	
ScQ-14Be	ACBG14BE	How much is your school's capacity to provide instruction affected by a shortage or inadequacy of the following? Resources for Mathematics Instruction: Concrete objects or materials to help students understand quantities or procedures		
ScQ-14Ca	ACBG14CA	How much is your school's capacity to provide instruction affected by a shortage or inadequacy of the following? Resources for Science Instruction: Teachers with a specialization in science	ACBG10DA	
ScQ-14Cb	ACBG14CB	How much is your school's capacity to provide instruction affected by a shortage or inadequacy of the following? Resources for Science Instruction: Computer software/applications for science instruction	ACBG10DB	Modified wording in 2015
ScQ-14Cc	ACBG14CC	How much is your school's capacity to provide instruction affected by a shortage or inadequacy of the following? Resources for Science Instruction: Library resources relevant to science instruction	ACBG10DC	Modified wording in 2015

Exhibit S1.4: Index of International Background Variables for the TIMSS 2015 School Questionnaire - Fourth Grade (Continued)

TIMSS 2015 Question Number	TIMSS 2015 Variable Name	TIMSS 2015 Variable Description (See questionnaire for full item text)	TIMSS 2011 Variable Name	Notes
ScQ-14Cd	ACBG14CD	How much is your school's capacity to provide instruction affected by a shortage or inadequacy of the following? Resources for Science Instruction: Science equipment and materials for experiments	ACBG10DE	Modified wording in 2015
ScQ-15a	ACBG15A	How would you characterize each of the following within your school? Teachers' understanding of the school's curricular goals	ACBG12B	
ScQ-15b	ACBG15B	How would you characterize each of the following within your school? Teachers' degree of success in implementing the school's curriculum	ACBG12C	
ScQ-15c	ACBG15C	How would you characterize each of the following within your school? Teachers' expectations for student achievement	ACBG12D	
ScQ-15d	ACBG15D	How would you characterize each of the following within your school? Teachers working together to improve student achievement		
ScQ-15e	ACBG15E	How would you characterize each of the following within your school? Teachers' ability to inspire students		
ScQ-15f	ACBG15F	How would you characterize each of the following within your school? Parental involvement in school activities	ACBG12F	
ScQ-15g	ACBG15G	How would you characterize each of the following within your school? Parental commitment to ensure that students are ready to learn		
ScQ-15h	ACBG15H	How would you characterize each of the following within your school? Parental expectations for student achievement		
ScQ-15i	ACBG15I	How would you characterize each of the following within your school? Parental support for student achievement	ACBG12E	
ScQ-15j	ACBG15J	How would you characterize each of the following within your school? Parental pressure for the school to maintain high academic standards		
ScQ-15k	ACBG15K	How would you characterize each of the following within your school? Students' desire to do well in school	ACBG12H	
ScQ-15l	ACBG15L	How would you characterize each of the following within your school? Students' ability to reach school's academic goals		
ScQ-15m	ACBG15M	How would you characterize each of the following within your school? Students' respect for classmates who excel in school		
ScQ-16a	ACBG16A	To what degree is each of the following a problem among <fourth grade> students in your school? Arriving late at school	ACBG13AA	
ScQ-16b	ACBG16B	To what degree is each of the following a problem among <fourth grade> students in your school? Absenteeism	ACBG13AB	
ScQ-16c	ACBG16C	To what degree is each of the following a problem among <fourth grade> students in your school? Classroom disturbance	ACBG13AC	
ScQ-16d	ACBG16D	To what degree is each of the following a problem among <fourth grade> students in your school? Cheating	ACBG13AD	
ScQ-16e	ACBG16E	To what degree is each of the following a problem among <fourth grade> students in your school? Profanity	ACBG13AE	
ScQ-16f	ACBG16F	To what degree is each of the following a problem among <fourth grade> students in your school? Vandalism	ACBG13AF	
ScQ-16g	ACBG16G	To what degree is each of the following a problem among <fourth grade> students in your school? Theft	ACBG13AG	
ScQ-16h	ACBG16H	To what degree is each of the following a problem among <fourth grade> students in your school? Intimidation or verbal abuse among students	ACBG13AH	
ScQ-16i	ACBG16I	To what degree is each of the following a problem among <fourth grade> students in your school? Physical fights among students	ACBG13AI	
ScQ-16j	ACBG16J	To what degree is each of the following a problem among <fourth grade> students in your school? Intimidation or verbal abuse of teachers or staff	ACBG13AJ	
ScQ-17a	ACBG17A	To what degree is each of the following a problem among teachers in your school? Arriving late or leaving early	ACBG13BA	
ScQ-17b	ACBG17B	To what degree is each of the following a problem among teachers in your school? Absenteeism	ACBG13BB	

Exhibit S1.4: Index of International Background Variables for the TIMSS 2015 School Questionnaire - Fourth Grade (Continued)

TIMSS 2015 Question Number	TIMSS 2015 Variable Name	TIMSS 2015 Variable Description (See questionnaire for full item text)	TIMSS 2011 Variable Name	Notes
ScQ-18a	ACBG18A	About how many of the students in your school can do the following when they begin the <first grade> of primary/elementary school? Recognize most of the letters of the alphabet	ACBG16A	Modified wording in 2015
ScQ-18b	ACBG18B	About how many of the students in your school can do the following when they begin the <first grade> of primary/elementary school? Read some words	ACBG16B	Modified wording in 2015
ScQ-18c	ACBG18C	About how many of the students in your school can do the following when they begin the <first grade> of primary/elementary school? Read sentences	ACBG16C	Modified wording in 2015
ScQ-18d	ACBG18D	About how many of the students in your school can do the following when they begin the <first grade> of primary/elementary school? Write letters of the alphabet	ACBG16D	Modified wording in 2015
ScQ-18e	ACBG18E	About how many of the students in your school can do the following when they begin the <first grade> of primary/elementary school? Write some words	ACBG16E	Modified wording in 2015
ScQ-18f	ACBG18F	About how many of the students in your school can do the following when they begin the <first grade> of primary/elementary school? Count up to 100 or higher	ACBG16F	Modified wording in 2015
ScQ-18g	ACBG18G	About how many of the students in your school can do the following when they begin the <first grade> of primary/elementary school? Recognize written numbers from 1-10	ACBG16G	Modified wording in 2015
ScQ-18h	ACBG18H	About how many of the students in your school can do the following when they begin the <first grade> of primary/elementary school? Recognize written numbers higher than 10		Modified wording in 2015
ScQ-18i	ACBG18I	About how many of the students in your school can do the following when they begin the <first grade> of primary/elementary school? Write numbers from 1-10	ACBG16H	Modified wording in 2015
ScQ-18j	ACBG18J	About how many of the students in your school can do the following when they begin the <first grade> of primary/elementary school? Do simple addition		Modified wording in 2015
ScQ-18k	ACBG18K	About how many of the students in your school can do the following when they begin the <first grade> of primary/elementary school? Do simple subtraction		Modified wording in 2015
ScQ-19	ACBG19	By the end of this school year, how many years will you have been a principal altogether?		
ScQ-20	ACBG20	By the end of this school year, how many years will you have been a principal at this school?		
ScQ-21	ACBG21	What is the highest level of formal education you have completed?		
ScQ-22a	ACBG22A	Do you hold the following degrees in educational leadership? <Master's or equivalent level—ISCED Level 7>		
ScQ-22b	ACBG22B	Do you hold the following degrees in educational leadership? <Doctor or equivalent level—ISCED Level 8>		



Identification Label

TRENDS IN INTERNATIONAL MATHEMATICS AND SCIENCE STUDY

School Questionnaire

<Grade 4>

<TIMSS National Research Center Name>
<Address>



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

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School Questionnaire

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 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 primary/elementary education in <country>.

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 <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 study.

It is estimated that you will need approximately 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:

<Insert country-specific information here>.

Thank you.

TIMSS 2015

School Enrollment and Characteristics**1**

ACBG01

What is the total enrollment of students in your school as of <first day of month TIMSS testing begins, 2015>?

_____ students
Write in the number.

2

ACBG02

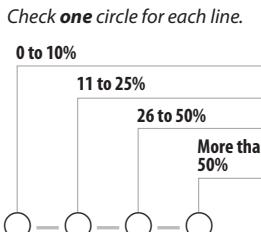
What is the total enrollment of <fourth grade> students in your school as of <first day of month TIMSS testing begins, 2015>?

_____ students
Write in the number.

3

ACBG03A

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



ACBG03B

- a) Come from economically disadvantaged homes -----
 b) Come from economically affluent homes -----

4

ACBG04

Approximately what percentage of students in your school have <language of test> as their native language?

Check one circle only.

- More than 90% ---
 76 to 90% ---
 51 to 75% ---
 26 to 50% ---
 25% or less ---

5

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

ACBG05A

Check one circle only.

- More than 500,000 people ---
 100,001 to 500,000 people ---
 50,001 to 100,000 people ---
 30,001 to 50,000 people ---
 15,001 to 30,000 people ---
 3,001 to 15,000 people ---
 3,000 people or fewer ---

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

ACBG05B

Check one circle only.

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

6**Does your school provide free meals for students?***Check one circle for each line.***Yes, for all students****Yes, for some students****No**

- ACBG06A a) Breakfast -----
ACBG06B b) Lunch -----

7**To what degree are the following health topics emphasized in your school?***Check one circle for each line.***Very high****High****Medium****Low**

- ACBG07A a) Washing hands -----
ACBG07B b) Brushing teeth -----
ACBG07C c) A healthy diet/nutrition -----
ACBG07D d) Disease prevention -----

Instructional Time**8****For the <fourth grade> students in your school:**

ACBG08A

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

_____ days
Write in the number.

ACBG08B

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

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

ACBG08C

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

Check one circle only.

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

9

ACBG09A

- A. Does your school provide a place where students can work on their schoolwork before or after school?

Check one circle only.

- Yes ---
No --- 
(If No, go to #10)

If Yes,

ACBG09B

- B. Is someone available to assist them with their schoolwork?

Check one circle only.

- Yes ---
No ---

10**As a general school policy, is student achievement used to assign <fourth grade> students to classes (e.g., streaming, tracking, setting)?**

Check one circle for each line.

Yes No

- a) For mathematics classes -----
b) For science classes -----

ACBG10A

ACBG10B

Resources and Technology**11**

ACBG11

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

_____ computers
Write in the number.

12

ACBG12A

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

Check one circle only.

Yes ---
No ---

ACBG12B

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

Check one circle only.

Yes ---
No ---

13

Does your school have a school library?

ACBG13

Check one circle only.

Yes ---
No --- 
(If No, go to #14)

If Yes,

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

Check one circle in each column.

	Print	Digital
250 or fewer---	<input type="radio"/>	<input type="radio"/>
251–500---	<input type="radio"/>	<input type="radio"/>
501–2,000---	<input type="radio"/>	<input type="radio"/>
2,001–5,000---	<input type="radio"/>	<input type="radio"/>
5,001–10,000---	<input type="radio"/>	<input type="radio"/>
More than 10,000---	<input type="radio"/>	<input type="radio"/>

ACBG13AA

ACBG13AB

B. Approximately how many titles of magazines and other periodicals (print and digital) does your school library have?

Check one circle in each column.

	Print	Digital
0---	<input type="radio"/>	<input type="radio"/>
1–5---	<input type="radio"/>	<input type="radio"/>
6–10---	<input type="radio"/>	<input type="radio"/>
11–30---	<input type="radio"/>	<input type="radio"/>
31 or more---	<input type="radio"/>	<input type="radio"/>

ACBG13BA

ACBG13BB

14**How much is your school's capacity to provide instruction affected by a shortage or inadequacy of the following?**Check **one** circle for each line.

Not at all
A little
Some
A lot

A. General School Resources

- ACBG14AA a) Instructional materials (e.g., textbooks) -----
- ACBG14AB b) Supplies (e.g., papers, pencils, materials) -----
- ACBG14AC c) School buildings and grounds -----
- ACBG14AD d) Heating/cooling and lighting systems -----
- ACBG14AE e) Instructional space (e.g., classrooms) -----
- ACBG14AF f) Technologically competent staff -----
- ACBG14AG g) Audio-visual resources for delivery of instruction (e.g., interactive white boards, digital projectors) -----
- ACBG14AH h) Computer technology for teaching and learning (e.g., computers or tablets for student use) -----
- ACBG14AI i) Resources for students with disabilities-----

Check **one** circle for each line.

Not at all
A little
Some
A lot

B. Resources for Mathematics Instruction

- ACBG14BA a) Teachers with a specialization in mathematics -----
- ACBG14BB b) Computer software/applications for mathematics instruction -----
- ACBG14BC c) Library resources relevant to mathematics instruction ---
- ACBG14BD d) Calculators for mathematics instruction -----
- ACBG14BE e) Concrete objects or materials to help students understand quantities or procedures -----

C. Resources for Science Instruction

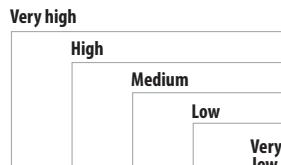
- ACBG14CA a) Teachers with a specialization in science -----
- ACBG14CB b) Computer software/applications for science instruction -----
- ACBG14CC c) Library resources relevant to science instruction -----
- ACBG14CD d) Science equipment and materials for experiments -----

**School Emphasis
on Academic Success**

15

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

Check **one** circle for each line.



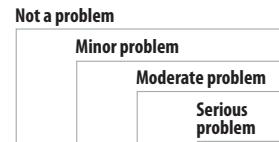
- | | | | | | | | |
|---------|-------------------------------------------------------------------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| ACBG15A | a) Teachers' understanding of the school's curricular goals ----- | <input type="radio"/> |
| ACBG15B | b) Teachers' degree of success in implementing the school's curriculum ----- | <input type="radio"/> |
| ACBG15C | c) Teachers' expectations for student achievement ----- | <input type="radio"/> |
| ACBG15D | d) Teachers working together to improve student achievement ----- | <input type="radio"/> |
| ACBG15E | e) Teachers' ability to inspire students ----- | <input type="radio"/> |
| ACBG15F | f) Parental involvement in school activities ----- | <input type="radio"/> |
| ACBG15G | g) Parental commitment to ensure that students are ready to learn ----- | <input type="radio"/> |
| ACBG15H | h) Parental expectations for student achievement ----- | <input type="radio"/> |
| ACBG15I | i) Parental support for student achievement ----- | <input type="radio"/> |
| ACBG15J | j) Parental pressure for the school to maintain high academic standards ----- | <input type="radio"/> |
| ACBG15K | k) Students' desire to do well in school ----- | <input type="radio"/> |
| ACBG15L | l) Students' ability to reach school's academic goals ----- | <input type="radio"/> |
| ACBG15M | m) Students' respect for classmates who excel in school ----- | <input type="radio"/> |

**School Discipline
and Safety**

16

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

Check **one** circle for each line.

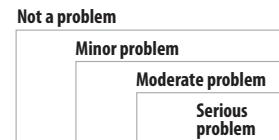


- | | | | | | |
|------------------------------------------------------------------------------------------------|-----------------------|-----------------------|-----------------------|-----------------------|---------|
| a) Arriving late at school ----- | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | ACBG16A |
| b) Absenteeism (i.e., unjustified absences) ----- | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | ACBG16B |
| c) Classroom disturbance ----- | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | ACBG16C |
| d) Cheating ----- | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | ACBG16D |
| e) Profanity ----- | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | ACBG16E |
| f) Vandalism ----- | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | ACBG16F |
| g) Theft ----- | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | ACBG16G |
| h) Intimidation or verbal abuse among students (including texting, emailing, etc.) ----- | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | ACBG16H |
| i) Physical fights among students ----- | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | ACBG16I |
| j) Intimidation or verbal abuse of teachers or staff (including texting, emailing, etc.) ----- | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | ACBG16J |

17

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

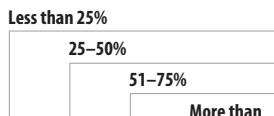
Check **one** circle for each line.



- | | | | | | |
|--------------------------------------|-----------------------|-----------------------|-----------------------|-----------------------|---------|
| a) Arriving late or leaving early -- | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | ACBG17A |
| b) Absenteeism ----- | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | ACBG17B |

School Readiness**18**

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

Check **one** circle for each line.

- ACBG18A a) Recognize most of the letters of the alphabet -----
- ACBG18B b) Read some words -----
- ACBG18C c) Read sentences -----
- ACBG18D d) Write letters of the alphabet --
- ACBG18E e) Write some words -----
- ACBG18F f) Count up to 100 or higher -----
- ACBG18G g) Recognize written numbers from 1-10 -----
- ACBG18H h) Recognize written numbers higher than 10 -----
- ACBG18I i) Write numbers from 1-10 -----
- ACBG18J j) Do simple addition -----
- ACBG18K k) Do simple subtraction -----

Principal Experience and Education**19**

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

ACBG19

years

Please **round** to the nearest whole number.**20**

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

ACBG20

years

Please **round** to the nearest whole number.**21**

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

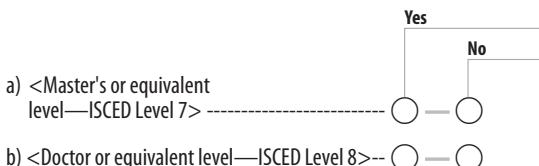
ACBG21

Check **one** circle only.

- Did not complete <Bachelor's or equivalent level—ISCED Level 6> ---
- <Bachelor's or equivalent level—ISCED Level 6> ---
- <Master's or equivalent level—ISCED Level 7> ---
- <Doctor or equivalent level—ISCED Level 8> ---

22

Do you hold the following degrees in educational leadership?

Check **one** circle for each line.

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

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

ACBG22A

ACBG22B

Thank You

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



BOSTON
COLLEGE

TRENDS IN INTERNATIONAL MATHEMATICS AND SCIENCE STUDY

School Questionnaire

<Grade 4>



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International Association
for the Evaluation of
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