

Identification Label

TRENDS IN INTERNATIONAL MATHEMATICS AND SCIENCE STUDY

Student Questionnaire

Separate Science Subjects

<Grade 8>

<TIMSS National Research Center Name>
<Address>

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

Directions

In this booklet, you will find questions about yourself. Some questions ask for facts while other questions ask for your opinion.

Each question is followed by a number of answers. Shade in the circle next to or under the answer of your choice as shown in Examples 1, 2, and 3.

Example 1

Do you go to school?

Fill **one** circle only.

Yes -- 🔘

No --()

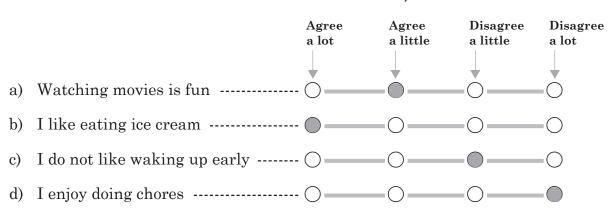
Example 2

How often do you do these things?

		Every day or almost every day	Once or twice a week	Once or twice a month	Never or almost never
a)	I talk with my friends	<u></u>			
b)	I play sports	O			\bigcirc
c)	I ride a skateboard	O	0		\bigcirc

Example 3

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



- 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: X. 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

1

Are you a girl or a boy?

Fill one circle only.

 $Girl - \bigcirc$

Boy -- ()

2

When were you born?

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

a) Month	b) Year
January 🔘	2001 🔾
February \bigcirc	2002 🔾
March 🔘	2003 🔾
April 🔘	2004 🔾
May ()	2005 🔾
June 🔘	2006 🔾
July 🔘	2007 🔾
August 🔘	2008 🔾
September \bigcirc	2009 🔾
October \bigcirc	Other \bigcirc
November \bigcirc	
December \bigcirc	

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

Fill **one** circle only.

Always -- 🔾

Almost always -- 🔘

Sometimes -- ()

Never -- 🔾

4

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) -- (

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

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

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

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

Do you have any of these things at your home?

		Yes	No
a)	A computer or tablet	🗸	
b)	Study desk/table for your use	🔾	
c)	Your own room	🔾	
d)	Internet connection	🔾	
e)	Your own mobile phone	🔾	
f)	<pre><country-specific indicator="" of="" wealth=""></country-specific></pre>	\(\)	
g)	<pre><country-specific indicator="" of="" wealth=""></country-specific></pre>	()	
h)	<pre><country-specific indicator="" of="" wealth=""></country-specific></pre>	()	
i)	<pre><country-specific indicator="" of="" wealth=""></country-specific></pre>	🔾	

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

6

What is the highest level of education completed by your cparents/guardians>?

A. <Parent/Guardian A>

Fill one circle only.

Some < Primary education—ISCED Level 1 or Lower secondary education—ISCED Level 2>
or did not go to school
 <lower 2="" education—isced="" level="" secondary=""> \bigcirc</lower>
<pre><upper 3="" education—isced="" level="" secondary=""> \bigcirc</upper></pre>
<pre><post-secondary, 4="" education—isced="" level="" non-tertiary=""> ()</post-secondary,></pre>
Short-cycle tertiary education—ISCED Level 5> ○
<bachelor's 6="" equivalent="" level="" level—isced="" or=""> ○</bachelor's>
<postgraduate degree:="" master's—isced<br="">Level 7 or Doctor—ISCED Level 8> ○</postgraduate>
I don't know 🔾
Not applicable 🔾

6 (continued)

What is the highest level of education completed by your parents/guardians>?

B. <Parent/Guardian B>

Fill **one** circle only.

Some <primary 1="" education—isced="" level="" or<br="">Lower secondary education—ISCED Level 2> or did not go to school ()</primary>	
 Lower secondary education—ISCED Level 2> \bigcirc	
<pre><upper 3="" education—isced="" level="" secondary=""> ○</upper></pre>	
<post-secondary, 4="" education—isced="" level="" non-tertiary=""> ()</post-secondary,>	
Short-cycle tertiary education—ISCED Level 5> ○	
<bachelor's 6="" equivalent="" level="" level—isced="" or=""> 〇</bachelor's>	
<postgraduate degree:="" master's—isced<br="">Level 7 or Doctor—ISCED Level 8> ○</postgraduate>	
I don't know 🔾	
Not applicable 🔾	

7

8

A.

В.

How far in your education do you expect to go?

$Fill\ \epsilon$	one circle only.
Finish <lower 2="" education—isced="" level="" secondary=""></lower>	·
Finish < Upper secondary education—ISCED Level 3>	·
Finish <post-secondary, 4="" education—isced="" level="" non-tertiary=""></post-secondary,>	·
Finish <short-cycle 5="" education—isced="" level="" tertiary=""></short-cycle>	·
Finish <bachelor's 6="" equivalent="" level="" level—isced="" or=""></bachelor's>	·
Finish <postgraduate 7="" 8="" degree:="" doctor—isced="" level="" master's—isced="" or=""></postgraduate>	·····
Were your <parents guardians=""> born</parents>	in <country>?</country>
<parent a="" guardian=""></parent>	
Fill o	one circle only.
Yes ()	The core or one.
1Cb U	The corese ores.
No 🔾	nie circie onig.
9	ne circle only.
No ()	nic circle only.
No ○ I don't know ○ Not applicable ○	ne circie oniy.
No ○ I don't know ○ Not applicable ○ Parent/Guardian B>	one circle only.
No ○ I don't know ○ Not applicable ○ Parent/Guardian B>	
No ○ I don't know ○ Not applicable ○ Parent/Guardian B>	
No ○ I don't know ○ Not applicable ○ Parent/Guardian B> Fill o	

A. V	Were	you	born	in	<country>?</country>
------	------	-----	------	----	----------------------

Fill **one** circle only.

Yes -- 🔾

(If Yes, go to #10)

No -- ()

If No,

B. If you were not born in <country>, how old were you when you came to <country>?

Fill **one** circle only.

Older than 10 years old -- ()

5 to 10 years old -- ()

Younger than 5 years old -- 🔾

10

About how often are you absent from school?

Fill **one** circle only.

Once a week -- 🔘

Once every two weeks -- ()

Once a month -- 🔘

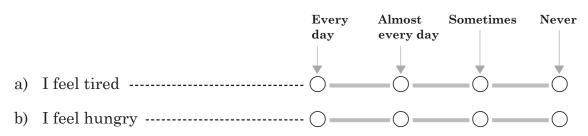
Once every two months -- \bigcirc

Never or almost never -- \bigcirc

11

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

Fill one circle for each line.



12

Do you use the Internet to do any of the following tasks for schoolwork (including classroom tasks, homework, studying outside of class)?

		Yes	No
a)	Access the textbook or other course materials	. •	
b)	Access assignments posted online by my teacher		
c)	Collaborate with classmates on assignments or projects		
d)	Communicate with the teacher	· ()	
e)	Find information, articles, or tutorials to aid in understanding mathematics or science	. ()	
f)	Access learning games or activities related to mathematics or science	. ()	

Your School

13

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

		Agree a lot	Agree a little	Disagree a little	Disagree a lot
a)	I like being in school	Ŏ	*	<u> </u>	Ŏ
b)	I feel safe when I am at school	O			\bigcirc
c)	I feel like I belong at this school	O			\bigcirc
d)	Teachers at my school are fair to me	0			\bigcirc
e)	I am proud to go to this school	0		O	\circ

14 -

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

		At least once a week	Once or twice a month	A few times a year	Never
a)	Said mean things about my physical appearance (e.g., my hair, my size)	- 0	-0	-0	-0
b)	Spread lies about me	- 🔾			
c)	Shared my secrets with others	- 🔾			
d)	Refused to talk to me	- 🔾	-0		
e)	Insulted a member of my family	- 🔾			
f)	Stole something from me	- 🔾			
g)	Made me do things I didn't want to do	- 🔾		-0-	-
h)	Sent me nasty or hurtful messages online	- 🔾			
i)	Shared nasty or hurtful things about me online	- ()			
j)	Shared embarrassing photos of me online	- 🔾		-0-	-
k)	Threatened me	- 🔾			
1)	Physically hurt me	- 🔾	-0		
m)	Excluded me from their group (e.g., parties, messaging)	- 🔾		-0	
n)	Damaged something of mine on purpose	- ()	-0		-0

Mathematics in School

15 _____

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

Fili one circle only.
Every or almost every lesson \bigcirc
About half the lessons \bigcirc
Some lessons 🔘
Never \bigcirc

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

		Agree a lot	Agree a little	Disagree a little	Disagree a lot
a)	I enjoy learning mathematics	- 0	-0		
b)	I wish I did not have to study mathematics	- 0			
c)	Mathematics is boring	- 0			
d)	I learn many interesting things in mathematics	- 0			
e)	I like mathematics	- 0			
f)	I like any schoolwork that involves numbers	- 0	-0	O	
g)	I like to solve mathematics problems	- ()	0		
h)	I look forward to mathematics class	- 0	-0	-0	
i)	Mathematics is one of my favorite subjects	- ()			

How much do you agree with these statements about your <u>mathematics lessons</u>?

		Agree a lot	Agree a little	Disagree a little	Disagree a lot
a)	I know what my teacher expects me to do	<u></u>			
b)	My teacher is easy to understand	O			
c)	My teacher has clear answers to my questions	0		0	
d)	My teacher is good at explaining mathematics	O	O	0	
e)	My teacher does a variety of things to help us learn	O	O	0	
f)	My teacher links new lessons to what I already know	O	O	0	
g)	My teacher explains a topic again when we don't understand	O			

How often do these things happen in your <u>mathematics lessons</u>?

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

How much do you agree with these statements about mathematics?

		Agree a lot	Agree a little	Disagree a little	Disagree a lot
a)	I usually do well in mathematics	- 🔾 —			
b)	Mathematics is more difficult for me than for many of my classmates	- ()	-0-		
c)	Mathematics is not one of my strengths	- ()			
d)	I learn things quickly in mathematics	- 🔾			
e)	Mathematics makes me nervous	- 🔾			
f)	I am good at working out difficult mathematics problems	- ()			
g)	My teacher tells me I am good at mathematics	- ()	0		
h)	Mathematics is harder for me than any other subject	- ()	-0	0	
i)	Mathematics makes me confused	- 🔾	O		

How much do you agree with these statements about mathematics?

		Agree a lot	Agree a little	Disagree a little	Disagree a lot
a)	I think learning mathematics will help me in my daily life				
b)	I need mathematics to learn other school subjects	O			\circ
c)	I need to do well in mathematics to get into the <university> of my choice</university>	O			\circ
d)	I need to do well in mathematics to get the job I want	O			\circ
e)	I would like a job that involves using mathematics	0			\circ
f)	It is important to learn about mathematics to get ahead in the world	O			\circ
g)	Learning mathematics will give me more job opportunities when I am an adult	O		O	\circ
h)	My parents think that it is important that I do well in mathematics	O	O		\circ
i)	It is important to do well in mathematics	0	O	0	\circ

Biology in School

21

Are you studying biology in school this year?

Fill one circle only.

Yes -- 🔾

No -- 🔾

(If No, go to #26)

22

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

Fill one circle only.

At least once a week -- ()

Once or twice a month -- \bigcirc

A few times a year -- ()

Never -- \bigcirc

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

		Agree a lot	Agree a little	Disagree a little	Disagree a lot
a)	I enjoy learning biology	. •	· · · · · · · · · · · · · · · · · · ·		
b)	I wish I did not have to study biology	- ()			
c)	Biology is boring	- 0			
d)	I learn many interesting things in biology	- ()			
e)	I like biology	- 0			
f)	I look forward to learning biology in school	- ()			
g)	Biology teaches me how things in the world work	- ()			
h)	I like to conduct biology experiments	- ()			
i)	Biology is one of my favorite subjects	- ()			

How much do you agree with these statements about your <u>biology lessons</u>?

		Agree a lot	Agree a little	Disagree a little	Disagree a lot
a)	I know what my teacher expects me to do	<u> </u>			
b)	My teacher is easy to understand	O		O	
c)	My teacher has clear answers to my questions	O			
d)	My teacher is good at explaining biology	0		0	
e)	My teacher does a variety of things to help us learn	0		0	\bigcirc
f)	My teacher links new lessons to what I already know	0		0	
g)	My teacher explains a topic again when we don't understand	O	O		

How much do you agree with these statements about biology?

		Agree a lot	Agree a little	Disagree a little	Disagree a lot
a)	I usually do well in biology	· Ŏ	<u> </u>	<u> </u>	
b)	Biology is more difficult for me than for many of my classmates				
c)	Biology is not one of my strengths	. ()			
d)	I learn things quickly in biology				
e)	I am good at working out difficult biology problems	. ()			
f)	My teacher tells me I am good at biology	. ()			
g)	Biology is harder for me than any other subject				
h)	Biology makes me confused				

Earth Science in School

26 _____

Are you studying earth science in school this year?

Fill one circle only.

Yes -- ()

No -- 🔾

(If No, go to #31)

27

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

Fill one circle only.

At least once a week -- ()

Once or twice a month -- \bigcirc

A few times a year -- \bigcirc

Never -- \bigcirc

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

		Agree a lot	Agree a little	Disagree a little	Disagree a lot
a)	I enjoy learning earth science	Ŏ	Ŏ		
b)	I wish I did not have to study earth science	O			\bigcirc
c)	Earth science is boring	O			\bigcirc
d)	I learn many interesting things in earth science	O			\bigcirc
e)	I like earth science	O			\bigcirc
f)	I look forward to learning earth science in school	O			\bigcirc
g)	Earth science teaches me how things in the world work	0			\bigcirc
h)	I like to conduct earth science experiments	0		0	\bigcirc
i)	Earth science is one of my favorite subjects	O			\bigcirc

How much do you agree with these statements about your <u>earth science lessons</u>?

		Agree a lot	Agree a little	Disagree a little	Disagree a lot
a)	I know what my teacher expects me to do	<u> </u>			
b)	My teacher is easy to understand	O			
c)	My teacher has clear answers to my questions	O		0	
d)	My teacher is good at explaining earth science	0	0	0	
e)	My teacher does a variety of things to help us learn	0	0	0	
f)	My teacher links new lessons to what I already know	0		0	
g)	My teacher explains a topic again when we don't understand	O			

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

		Agree a lot	Agree a little	Disagree a little	Disagree a lot
a)	I usually do well in earth science	- 0		<u> </u>	
b)	Earth science is more difficult for me than for many of my classmates	- ()	O	O	
c)	Earth science is not one of my strengths	- ()			
d)	I learn things quickly in earth science	- ()			
e)	I am good at working out difficult earth science problems	- ()			
f)	My teacher tells me I am good at earth science	- ()			
g)	Earth science is harder for me than any other subject	- ()			
h)	Earth science makes me confused	- ()			

Chemistry in School

31

Are you studying chemistry in school this year?

Fill one circle only.

Yes -- ()

No -- 🔾

(If No, go to #36)

32

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

Fill one circle only.

At least once a week -- ()

Once or twice a month -- 〇

A few times a year -- \bigcirc

Never -- ()

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

		Agree a lot	Agree a little	Disagree a little	Disagree a lot
a)	I enjoy learning chemistry	. •	Ŏ	Ŏ	
b)	I wish I did not have to study chemistry				\bigcirc
c)	Chemistry is boring	- 0			
d)	I learn many interesting things in chemistry				\bigcirc
e)	I like chemistry			0	
f)	I look forward to learning chemistry in school	. ()		0	\bigcirc
g)	Chemistry teaches me how things in the world work	. ()		0	\bigcirc
h)	I like to conduct chemistry experiments	. ()			
i)	Chemistry is one of my favorite subjects	. ()		0	

How much do you agree with these statements about your <u>chemistry lessons</u>?

		Agree a lot	Agree a little	Disagree a little	Disagree a lot
a)	I know what my teacher expects me to do	<u></u>			
b)	My teacher is easy to understand	O			
c)	My teacher has clear answers to my questions	0			
d)	My teacher is good at explaining chemistry	0	0	0	
e)	My teacher does a variety of things to help us learn	0	0	0	
f)	My teacher links new lessons to what I already know	0	0	0	
g)	My teacher explains a topic again when we don't understand	O		0	

How much do you agree with these statements about chemistry?

		Agree a lot	Agree a little	Disagree a little	Disagree a lot
a)	I usually do well in chemistry	Ŏ	Ŏ	Ŏ	
b)	Chemistry is more difficult for me than for many of my classmates	0			
c)	Chemistry is not one of my strengths	0			
d)	I learn things quickly in chemistry	O			
e)	I am good at working out difficult chemistry problems	0			
f)	My teacher tells me I am good at chemistry	0			
g)	Chemistry is harder for me than any other subject	O			
h)	Chemistry makes me confused	O			

Physics in School

36

Are you studying physics in school this year?

Fill **one** circle only.

Yes -- ()

No -- 🔾

(If No, go to #41)

37

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

Fill one circle only.

At least once a week -- ()

Once or twice a month -- \bigcirc

A few times a year -- \bigcirc

Never -- \bigcirc

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

		Agree a lot	Agree a little	Disagree a little	Disagree a lot
a)	I enjoy learning physics	- 💍	-0	· · · · · · · · · · · · · · · · · · ·	
b)	I wish I did not have to study physics	- 🔾			
c)	Physics is boring	- 🔾			
d)	I learn many interesting things in physics	- 🔾			
e)	I like physics	- 🔾			
f)	I look forward to learning physics in school	- 0			
g)	Physics teaches me how things in the world work	- ()	0		
h)	I like to conduct physics experiments	- 0	0		
i)	Physics is one of my favorite subjects	- ()			

How much do you agree with these statements about your <u>physics lessons</u>?

		Agree a lot	Agree a little	Disagree a little	Disagree a lot
a)	I know what my teacher expects me to do				
b)	My teacher is easy to understand				
c)	My teacher has clear answers to my questions				
d)	My teacher is good at explaining physics		0		
e)	My teacher does a variety of things to help us learn		0		
f)	My teacher links new lessons to what I already know		\circ		
g)	My teacher explains a topic again when we don't understand				

How much do you agree with these statements about physics?

		Agree a lot	Agree a little	Disagree a little	Disagree a lot
a)	I usually do well in physics	· O ——		<u> </u>	
b)	Physics is more difficult for me than for many of my classmates	- ()			
c)	Physics is not one of my strengths	- ()			
d)	I learn things quickly in physics	- ()			
e)	I am good at working out difficult physics problems	- ()			
f)	My teacher tells me I am good at physics	- ()			
g)	Physics is harder for me than any other subject	- ()			
h)	Physics makes me confused	- 0			

Learning Science

41

How much do you agree with these statements about science (including biology, earth science, chemistry, and physics)?

		Agree a lot	Agree a little	Disagree a little	Disagree a lot
a)	I think learning science will help me in my daily life	- 0			
b)	I need science to learn other school subjects	- ()			
c)	I need to do well in science to get into the <university> of my choice</university>	- ()			
d)	I need to do well in science to get the job I want	- ()		0	
e)	I would like a job that involves using science	- ()			
f)	It is important to learn about science to get ahead in the world	- 0		0	
g)	Learning science will give me more job opportunities when I am an adult	- 0			
h)	My parents think that it is important that I do well in science	- ()		0	
i)	It is important to do well in science	- ()			

Homework

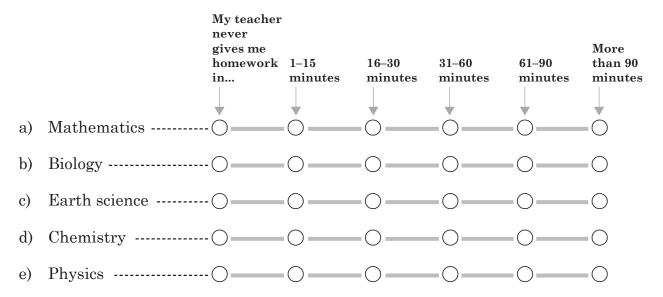
42

A. How often does your teacher give you homework in each of the following subjects?

Fill one circle for each line.

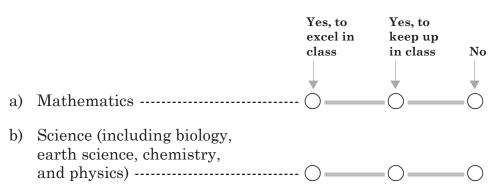
		Every day	3 or 4 times a week	1 or 2 times a week	Less than once a week	Never
a)	Mathematics		<u> </u>		-0	
b)	Biology					-
c)	Earth science					-
d)	Chemistry		0			-
e)	Physics		0	0		-

B. When your teacher gives you homework in each of the following subjects, about how many minutes do you usually spend on your homework?

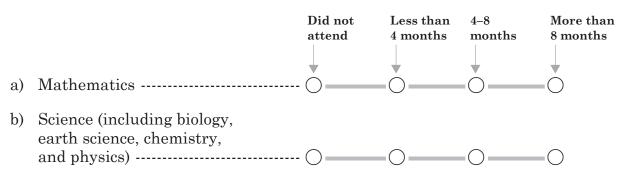


A. During the last 12 months, have you attended extra lessons or tutoring not provided by the school in the following subjects?

Fill one circle for each line.



B. For how many of the last 12 months have you attended extra lessons or tutoring?



Thank You!

Thank you for filling out the questionnaire!



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<Grade 8>



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