IEA Trends in International Mathematics and Science Study

Main Survey  Student Questionnaire

Grade 8  2003
In this booklet, you will find questions about yourself. Some questions ask for facts while other questions ask for your opinions.

Read each question carefully and respond as accurately as possible. You may ask for help if you do not understand something or are not sure how to respond.

Each of the questions is followed by possible choices indicated with a circle with a number in it. For these questions, shade in the circle with the response of your choice as shown in Examples 1, 2, and 3.

**Example 1**

Do you go to school?

*Fill in one circle only*

Yes ----------------------------------------------- ●

No ----------------------------------------------- ②

**Example 2**

How often do you do these things?

*Fill in one circle for each line*

Every day At least once a week Once or twice a month A few times a year Never

a) I listen to music -------------------------------- ① ---- ② ---- ● ---- ④ ---- ⑤

b) I talk with my friends -------------------------- ● ---- ② ---- ③ ---- ④ ---- ⑤

c) I play sports ----------------------------------- ① ---- ● ---- ③ ---- ④ ---- ⑤
Example 3

Indicate how much you agree with each of these statements.

*Fill in one circle for each line*

<table>
<thead>
<tr>
<th>Agree a lot</th>
<th>Agree a little</th>
<th>Disagree a little</th>
<th>Disagree a lot</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a) Watching movies is fun

b) I like eating ice cream

Read each question carefully and pick the answer you think is best. Fill in the circle that shows your answer. If you decide to change your answer, erase your first answer and 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.

Thank you for your time, effort, and thought in completing this questionnaire.
# About You

## 1. When were you born?

*Fill in the circle next to the year you were born*

<table>
<thead>
<tr>
<th>Year</th>
<th>Month</th>
</tr>
</thead>
<tbody>
<tr>
<td>1985</td>
<td>January</td>
</tr>
<tr>
<td>1986</td>
<td>February</td>
</tr>
<tr>
<td>1987</td>
<td>March</td>
</tr>
<tr>
<td>1988</td>
<td>April</td>
</tr>
<tr>
<td>1989</td>
<td>May</td>
</tr>
<tr>
<td>1990</td>
<td>June</td>
</tr>
<tr>
<td>1991</td>
<td>July</td>
</tr>
<tr>
<td>1992</td>
<td>August</td>
</tr>
<tr>
<td>Other</td>
<td>October</td>
</tr>
<tr>
<td></td>
<td>November</td>
</tr>
<tr>
<td></td>
<td>December</td>
</tr>
</tbody>
</table>

## 2. A. Are you a girl or a boy?

*Fill in one circle only*

- Girl - [ ]
- Boy - [ ]

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Page 62  
Grade 8 Student Questionnaire
B. Are you Hispanic or Latino?

_Fill in one circle only_

- Yes, I am Hispanic or Latino. --------------------------------------- ①
- No, I am not Hispanic or Latino. ----------------------------------- ②

C. Which of the following best describes you?

_Fill in as many circles as you need to_

- White ---------------------------------------------------------------- ①
- Black or African American --------------------------------------------- ②
- Asian ----------------------------------------------------------------- ③
- American Indian or Alaska Native --------------------------------------- ④
- Native Hawaiian or other Pacific Islander ---------------------------- ⑤
3

How often do you speak English at home?

*Fill in one circle only*

- Always ---------------------------------------------- ①
- Almost always ------------------------------------- ②
- Sometimes ----------------------------------------- ③
- Never ---------------------------------------------- ④

4

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

*Fill in one circle only*

- None or very few (0-10 books) ------------------------ ①
- Enough to fill one shelf (11-25 books) --------------- ②
- Enough to fill one bookcase (26-100 books) --------- ③
- Enough to fill two bookcases (101-200 books) ------ ④
- Enough to fill three or more bookcases (more than 200 books) -------------- ⑤
Do you have any of these items in your home?

Fill in one circle for each line

<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
</table>

a) Calculator ------------------------------------ ① ------ ②

b) Computer (do not include PlayStation®, GameCube®, XBox®, or other TV/video game system) ------- ① ------ ②

c) Study desk/table for your use ------------ ① ------ ②

d) Dictionary ------------------------------------ ① ------ ②

e) Encyclopedia (as a book or CD) ------- ① ------ ②

f) PlayStation®, Game Cube®, XBox®, or other TV/video game system ------- ① ------ ②

g) DVD player ---------------------------------- ① ------ ②

h) Three or more cars, small trucks, or sport utility vehicles -------- ① ------ ②
A. What is the highest level of education completed by your mother (or stepmother or female guardian)?

*Fill in one circle only*

Did not complete elementary school or did not go to school --------------- ①
Completed elementary school ------------------------------------------ ②
Some high school -------------------------------------------------------- ③
Completed high school --------------------------------------------------- ④
Completed a vocational/technical certificate after high school -------- ⑤
Completed an Associate’s degree (AA) in a vocational/technical program ------------------------------------------ ⑥
Completed a 2-year or 4-year college or university degree (i.e., Associate’s or Bachelor’s degree) ----------------------------- ⑦
Completed a Master’s degree, teaching certificate program, or professional degree (e.g., law, medicine, dentistry) ------------- ⑧
Completed a doctorate (Ph.D. or Ed.D) ----------------------------------- ⑨
I don’t know ------------------------------------------------------------- ⑩

B. What is the highest level of education completed by your father (or stepfather or male guardian)?

*Fill in one circle only*

Did not complete elementary school or did not go to school --------------- ①
Completed elementary school ------------------------------------------ ②
Some high school -------------------------------------------------------- ③
Completed high school --------------------------------------------------- ④
Completed a vocational/technical certificate after high school -------- ⑤
Completed an Associate’s degree (AA) in a vocational/technical program ------------------------------------------ ⑥
Completed a 2-year or 4-year college or university degree (i.e., Associate’s or Bachelor’s degree) ----------------------------- ⑦
Completed a Master’s degree, teaching certificate program, or professional degree (e.g., law, medicine, dentistry) ------------- ⑧
Completed a doctorate (Ph.D. or Ed.D) ----------------------------------- ⑨
I don’t know ------------------------------------------------------------- ⑩
How far in school do you expect to go?

*Fill in one circle only*

1. Finish high school
2. Finish vocational/technical education after high school
3. Finish community or junior college
4. Complete a bachelor’s degree at a college or university
5. Beyond bachelor’s degree
6. I don’t know
How much do you agree with these statements about learning mathematics?

*Fill in one circle for each line*

<table>
<thead>
<tr>
<th>Agree a lot</th>
<th>Agree a little</th>
<th>Disagree a little</th>
<th>Disagree a lot</th>
</tr>
</thead>
</table>

a) I usually do well in mathematics ------- ① ------- ② ------- ③ ------- ④
b) I would like to take more mathematics in school ------------------- ① ------- ② ------- ③ ------- ④
c) Mathematics is more difficult for me than for many of my classmates ------- ① ------- ② ------- ③ ------- ④
d) I enjoy learning mathematics ------- ① ------- ② ------- ③ ------- ④
e) Sometimes, when I do not initially understand a new topic in mathematics, I know that I will never really understand it ------------------- ① ------- ② ------- ③ ------- ④
f) Mathematics is not one of my strengths----------------------------- ① ------- ② ------- ③ ------- ④
g) I learn things quickly in mathematics ① ------- ② ------- ③ ------- ④
How much do you agree with these statements about mathematics?

*Fill in *one circle for each line*

<table>
<thead>
<tr>
<th>Agree a lot</th>
<th>Agree a little</th>
<th>Disagree a little</th>
<th>Disagree a lot</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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<td></td>
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<td></td>
<td></td>
</tr>
</tbody>
</table>

a) I think learning mathematics will help me in my daily life

b) I need mathematics to learn other school subjects

c) I need to do well in mathematics to get into the university or college of my choice

d) I would like a job that involves using mathematics

e) I need to do well in mathematics to get the job I want
How often do you do these things in your mathematics lessons?

*Fill in one circle for each line*

<table>
<thead>
<tr>
<th></th>
<th>Every or almost every lesson</th>
<th>About half the lessons</th>
<th>Some lessons</th>
<th>Never</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>a) We practice adding, subtracting, multiplying, and dividing without using a calculator</strong></td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td><strong>b) We work on fractions and decimals</strong></td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td><strong>c) We interpret data in tables, charts, or graphs</strong></td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td><strong>d) We write equations and functions to represent relationships</strong></td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td><strong>e) We work together in small groups</strong></td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td><strong>f) We relate what we are learning in mathematics to our daily lives</strong></td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td><strong>g) We explain our answers</strong></td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td><strong>h) We decide on our own procedures for solving complex problems</strong></td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td><strong>i) We review our homework</strong></td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td><strong>j) We listen to the teacher give a lecture-style presentation</strong></td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td><strong>k) We work on problems on our own</strong></td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td><strong>l) We begin our homework in class</strong></td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td><strong>m) We have a quiz or test</strong></td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td><strong>n) We use calculators</strong></td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>
Science in School

11

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

*Fill in one circle for each line*

<table>
<thead>
<tr>
<th>Agree a lot</th>
<th>Agree a little</th>
<th>Disagree a little</th>
<th>Disagree a lot</th>
</tr>
</thead>
</table>

a) I usually do well in science --------------- 1 ------ 2 ------ 3 ----- 4
b) I would like to take more science in school --------------------------------------- 1 ------ 2 ------ 3 ----- 4
c) Science is more difficult for me than for many of my classmates -------- 1 ------ 2 ------ 3 ----- 4
d) I enjoy learning science ------------------- 1 ------ 2 ------ 3 ----- 4
e) Sometimes, when I do not initially understand a new topic in science, I know that I will never really understand it ----------------------------- 1 ------ 2 ------ 3 ----- 4
f) Science is not one of my strengths ---- 1 ------ 2 ------ 3 ----- 4
g) I learn things quickly in science -------- 1 ------ 2 ------ 3 ----- 4
How much do you agree with these statements about science?

*Fill in one circle for each line*

<table>
<thead>
<tr>
<th>Agree a lot</th>
<th>Agree a little</th>
<th>Disagree a little</th>
<th>Disagree a lot</th>
</tr>
</thead>
</table>

a) I think learning science will help me in my daily life
   --------------  1  2  3  4

b) I need science to learn other school subjects
   ------------------  1  2  3  4

c) I need to do well in science to get into the university or college of my choice
   ------------------  1  2  3  4

d) I would like a job that involves using science
   ------------------  1  2  3  4

e) I need to do well in science to get the job I want
   ------------------  1  2  3  4
How often do you do these things in your science lessons?

*Fill in one circle for each line*

<table>
<thead>
<tr>
<th>Every or almost every lesson</th>
<th>About half the lessons</th>
<th>Some lessons</th>
<th>Never</th>
</tr>
</thead>
</table>

a) We watch the teacher demonstrate an experiment or investigation  
   Every or almost every lesson  
   About half the lessons  
   Some lessons  
   Never

b) We formulate hypotheses or predictions to be tested  
   Every or almost every lesson  
   About half the lessons  
   Some lessons  
   Never

c) We design or plan an experiment or investigation  
   Every or almost every lesson  
   About half the lessons  
   Some lessons  
   Never

d) We conduct an experiment or investigation  
   Every or almost every lesson  
   About half the lessons  
   Some lessons  
   Never

e) We work in small groups on an experiment or investigation  
   Every or almost every lesson  
   About half the lessons  
   Some lessons  
   Never

f) We write explanations about what was observed and why it happened  
   Every or almost every lesson  
   About half the lessons  
   Some lessons  
   Never

g) We study the impact of technology on society  
   Every or almost every lesson  
   About half the lessons  
   Some lessons  
   Never

h) We relate what we are learning in science to our daily lives  
   Every or almost every lesson  
   About half the lessons  
   Some lessons  
   Never

i) We present our work to the class  
   Every or almost every lesson  
   About half the lessons  
   Some lessons  
   Never

j) We review our homework  
   Every or almost every lesson  
   About half the lessons  
   Some lessons  
   Never

k) We listen to the teacher give a lecture-style presentation  
   Every or almost every lesson  
   About half the lessons  
   Some lessons  
   Never

l) We work problems on our own  
   Every or almost every lesson  
   About half the lessons  
   Some lessons  
   Never

m) We begin our homework in class  
   Every or almost every lesson  
   About half the lessons  
   Some lessons  
   Never

n) We have a quiz or test  
   Every or almost every lesson  
   About half the lessons  
   Some lessons  
   Never
Computers

14

A. Do you ever use a computer? (Do not include PlayStation®, GameCube®, XBox®, or other TV/video game systems).

Yes  No

Fill in one circle only 1 ------ 2

If No, please go to question 15 on next page

B. Where do you use a computer?

Fill in one circle for each line

Yes  No

a) At home 1 ------ 2
b) At school 1 ------ 2
c) At a library 1 ------ 2
d) At a friend’s home 1 ------ 2
e) At an Internet café 1 ------ 2
f) Elsewhere 1 ------ 2

C. How often do you do these things with a computer?

Fill in one circle for each line

Every day  At least once a week  Once or twice a month  A few times a year  Never

a) I look up ideas and information for mathematics 1 ------ 2 ------ 3 ------ 4 ------ 5
b) I look up ideas and information for science 1 ------ 2 ------ 3 ------ 4 ------ 5
c) I write reports for school 1 ------ 2 ------ 3 ------ 4 ------ 5
d) I process and analyze data 1 ------ 2 ------ 3 ------ 4 ------ 5
Your School

15

How much do you agree with these statements about your school?

*Fill in one circle for each line*

<table>
<thead>
<tr>
<th>Agree a lot</th>
<th>Agree a little</th>
<th>Disagree a little</th>
<th>Disagree a lot</th>
</tr>
</thead>
</table>

a) I like being in school  

b) I think that most students in my school try to do their best  

c) I think that most teachers in my school care about the students  

d) I think that most teachers in my school want students to do their best
Things You Do Outside of School

On a normal school day, how much time do you spend before or after school doing each of these things?

*Fill in one circle for each line*

<table>
<thead>
<tr>
<th>No time</th>
<th>Less than 1 hour</th>
<th>1-2 hours</th>
<th>More than 2 but less than 4 hours</th>
<th>4 or more hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) I watch television and videos</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>b) I play computer games</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>c) I play or talk with friends</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>d) I do jobs or chores at home</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>e) I work at a paid job</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>f) I play sports</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>g) I read a book for enjoyment</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>h) I use the Internet</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>i) I do homework</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>
A. During this school year, how often have you had tutoring or extra lessons in mathematics that are not part of your regular class?

*Fill in one circle only*

- Every or almost every day .................. ①
- Once or twice a week .......................... ②
- Sometimes ...................................... ③
- Never or almost never .......................... ④

B. During this school year, how often have you had tutoring or extra lessons in science that are not part of your regular class?

*Fill in one circle only*

- Every or almost every day .................. ①
- Once or twice a week .......................... ②
- Sometimes ...................................... ③
- Never or almost never .......................... ④
A. How often does your teacher give you homework in mathematics?

Fill in one circle only

Every day ------------------------------------------- ①
3 or 4 times a week----------------------------- ②
1 or 2 times a week----------------------------- ③
Less than once a week------------------------- ④
Never ----------------------------------------- ⑤

If Never, please go to question 19 on next page

B. When your teacher gives you mathematics homework, about how long does it take you to complete this homework?

Fill in one circle only

Less than 15 minutes ----------------- ①
15–30 minutes ----------------------- ②
31–60 minutes ----------------------- ③
61–90 minutes ----------------------- ④
More than 90 minutes ----------------- ⑤
19

A. How often does your teacher give you homework in science?

*Fill in one circle only*

- Every day ------------------------------------------- ①
- 3 or 4 times a week ------------------------------- ②
- 1 or 2 times a week ------------------------------- ③
- Less than once a week ---------------------------- ④
- Never --------------------------------------------- ⑤

*If Never, please go to question 20 on next page*

B. When your teacher gives you science homework, about how long does it take you to complete this homework?

*Fill in one circle only*

- Less than 15 minutes ----------------------------- ①
- 15–30 minutes ---------------------------------- ②
- 31–60 minutes ----------------------------------- ③
- 61–90 minutes ----------------------------------- ④
- More than 90 minutes --------------------------- ⑤
More About You

20

Including yourself, how many people live in your home?

*Fill in one circle only*

- 2
- 3
- 4
- 5
- 6
- 7
- 8 or more

21

A. Was your mother (or stepmother or female guardian) born in the United States?*

*Yes*   *No*

*Fill in one circle only*  

B. Was your father (or stepfather or male guardian) born in the United States?*

*Yes*   *No*

*Fill in one circle only*

*Note: “United States” includes the 50 states, its territories, the District of Columbia, and U.S. military bases abroad.*
A. Were you born in the United States?

Yes  No

Fill in one circle only  \(\Box\)  \(\Box\)

*If Yes, you have completed the questionnaire*

B. If you were not born in the United States, how old were you when you came to the United States?

*Fill in one circle only*

- Younger than 5 years old \(\Box\)
- 5 to 10 years old \(\Box\)
- Older than 10 years old \(\Box\)

Thank You for completing this questionnaire