

IEA Third International Mathematics and Science Study - Repeat

## Student Questionnaire (s) Main Survey

Boston College
Chestnut Hill, MA 02467
USA

## GENERAL DIRECTIONS

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

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

Some of the questions will be followed by a few possible choices indicated with a letter next to or below it. For these questions, circle the letter next to or below your choice as shown in Example 1.

## Example 1



The letter "A" has been circled because you attend school.
If you decide to change your response to a question, put an " X " over your first choice and then put a circle around your new choice as shown in Example 2.

## Example 2

1. I like ice cream $\qquad$


Disagree
Strongly disagree

C
D

For other questions you will be asked to write a number or date in the space provided in your booklet. For these questions, you may use words and numbers in your answers. When you write, please be sure that your handwriting is clear.

## 1. On what date were you born?

Write in the day, month and year.
$<$ $\qquad$ day $\qquad$ month $\qquad$ year>
<NRC NOTE: USE STYLE APPROPRIATE TO YOUR COUNTRY AND GRADE LEVEL.>
2. Are you a girl or a boy?
Circle either $A$ or $B$.
girl A
boy B

## 3a. Were you born in <country> ?

Circle either $A$ or $B$.
Yes A

No
B

3b. If you were not born in <country>, how old were you when you came to <country>?

Write in your age at the time.

I was $\qquad$ years old when I came to <country>.
4. How often do you speak <language of test> at home?
Circle either A, B, or C. always or almost always ..... A
sometimes ..... B
never ..... C
5. During the week, how much time before or after school do you usually spend...

Circle one letter, A, B, C, D, or E, for each line.

|  | Less |  |  | More |
| :---: | :---: | :---: | :---: | :---: |
| No | than 1 | 1-2 | 3-5 | than 5 |
| time | hour | hours | hours | hours |

a) taking <extra lessons/cramming school> in mathematics?

A B C D
b) taking <extra lessons/cramming school> in science? $\qquad$
A B C D E
c) participating in science or mathematics clubs? A

A
B C
D E
d) working at a paid job? $\qquad$ A

B C
D E
6. On a normal school day, how much time do you spend before or after school doing each of these things?

Circle one letter, $A, B, C, D$, or $E$, for each line.

|  | Less |  |  | More |
| :---: | :---: | :---: | :---: | :---: |
| No | than 1 | $1-2$ | $3-5$ | than 5 |
| time | hour | hours | hours | hours |

a) watching television and videos ................... $\begin{array}{lllllll} & \text { A } & \text { B } & \text { C } & \text { D } & \text { E }\end{array}$
b) playing computer games .............................. A $\quad$ B $C$ D
c) playing or talking with friends outside of school $\qquad$
A B C D
d) doing jobs at home $\qquad$
A B C D E
e) playing sports $\qquad$
A B C D E
f) reading a book for enjoyment $\qquad$ D E
g) studying mathematics or doing mathematics homework after school

A
B
C
D E
h) studying science or doing science homework after school $\qquad$ A

B
C
D E
i) studying or doing homework in school subjects other than mathematics and science $\qquad$
A B C D E

## 7. How far in school did your mother and father go?

Circle one letter, $A, B, C, D, E, F, G$, or $H$, in each column.

|  | a) Mother | b) Father |
| :---: | :---: | :---: |
| <some primary school, or did not go to school> ................ | A | A |
| <finished primary school> | B | B |
| <some secondary school> ................................................ | . C | C |
| <finished secondary school> ........................................... | . D | D |
| <some vocational/technical education after secondary school> $\qquad$ | . E | E |
| <some university> ......................................................... | . F | F |
| <finished university> ..................................................... | . G | G |
| I don't know ................................................................. | . H | H |

8. How far in school do you expect to go?Circle one letter, $A, B, C, D, E$, or $F$.
<some secondary school> ..... A
<finish secondary school> ..... B
<some vocational/technical education after secondary school> ..... C
<some university> ..... D
<finish university> ..... E
I don't know ..... F
Yes9a. Was your mother born in <country>?ABCircle either $A$ or $B$.
9b. Was your father born in <country>? ..... A ..... BCircle either A or B.
9. About how many books are there in your home?
(Do not count magazines, newspapers, or your school books.)
Circle one letter, $A, B, C, D$, or $E$.
none or very few ( $0-10$ books) ..... A
enough to fill one shelf (11-25 books) ..... B
enough to fill one bookcase (26-100 books) ..... C
enough to fill two bookcases (101-200 books) ..... D
enough to fill three or more bookcases (more than 200) ..... E
10. Do you have any of these items at your home?Circle either A or B for each line.

|  |  | Yes | No |
| :---: | :---: | :---: | :---: |
| a) | calculator .......................................................................... | A | B |
| b) | computer ......................................................................... | A | B |
| c) | study desk/table for your use ............................................... | A | B |
| d) | dictionary ........................................................................ | A | B |
| e) | <country-specific> ............................................................ | A | B |
| f) | <country-specific> ............................................................. | A | B |
| g) | <country-specific> ............................................................ | A | B |
| h) | <country-specific> ............................................................. | A | B |
| i) | <country-specific> ............................................................. | A | B |
| j) | <country-specific> ............................................................. | A | B |
| k) | <country-specific> ............................................................. | A | B |
| 1) | <country-specific> ............................................................. | A | B |
| m) | <country-specific> ............................................................. | A | B |
| n) | <country-specific> ............................................................. | A | B |
| o) | <country-specific> ............................................................ | A | B |
|  | <country-specific> ............................................................ | A | B |

## 12. My mother thinks it is important for me to...

Circle one letter, $A, B, C$, or $D$, for each line.

|  | Strongly agree | Agree | Disagree | Strongly disagre |
| :---: | :---: | :---: | :---: | :---: |
| a) do well in science at school. | A | B | C | D |
| b) do well in mathematics at school. | A | B | C | D |
| c) do well in <language of test> at school. ............. | A | B | C | D |
| d) have time to have fun. ..................................... | A | B | C | D |
| e) be good at sports. ........................................... | A | B | C | D |

13. In my mathematics class...

Circle one letter, $A, B, C$, or $D$, for each line.

| Strongly <br> agree | Agree | Disagree | Strongly <br> disagree |
| :---: | :---: | :---: | :---: |

a) students often neglect their school work. $\qquad$ A
B
C
D
b) students are orderly and quiet during <lessons> ..
A
B
C
D
c) students do exactly as the teacher says. $\qquad$ A
B
C
D

## 14. Most of my friends think it is important to...

Circle one letter, A, B, C, or D, for each line.
Strongly
agree
Agree Disagree
Strongly disagree

| a) do well in science at school. ............................. | A | B | C | D |
| :--- | :--- | :--- | :--- | :--- | :--- |
| b) do well in mathematics at school. ....................... | A | B | C | D |
| c) do well in <language of test> at school. .............. | A | B | C | D |
| d) have time to have fun. .............................................. A | B | C | D |  |
| e) be good at sports. ..................................................... A | B | C | D |  |

## 15. I think it is important to...

Circle one letter, A, B, C, or D, for each line.
Strongly

agree Agree $\quad$ Disagree | Strongly |
| :---: |
| disagree |

a) do well in science at school. ............................... A $\quad$ B $\quad$ C
b) do well in mathematics at school. ....................... A $\quad$ B $\quad$ C
c) do well in <language of test> at school. .............. $\begin{array}{lllll}\text { A } & \text { B } & \text { C } & \text { D }\end{array}$
d) have time to have fun. ......................................... A $\quad$ B $C$ D
e) be good at sports $\qquad$ A
B
C
D

## 16. How well do you usually do in mathematics and science at school?

Circle one letter, A, B, C, or D, for each line.
a) I usually do well in mathematics. ........................

| Strongly <br> agree | Agree | Disagree | Strongly <br> disagree |
| :---: | :---: | :---: | :---: |

A B
C
D
b) I usually do well in biological science $\qquad$ A B
C
D
c) I usually do well in earth science $\qquad$ A B
C
D
d) I usually do well in chemistry ..............................

A
B
C
D
e) I usually do well in physics $\qquad$ A
B
C
D

## 17. How difficult do you think mathematics is?

Circle one letter, $A, B, C$, or $D$, for each line.

|  | Strongly agree | Agree | Disagree | Strongly disagree |
| :---: | :---: | :---: | :---: | :---: |
| a) I would like mathematics much more if it were not so difficult. | A | B | C | D |
| b) Although I do my best, mathematics is more difficult for me than for many of my classmates. | A | B | C | D |
| c) Nobody can be good in every subject, and I am just not talented in mathematics. | A | B | C | D |
| e) Sometimes, when I do not understand a new topic in mathematics initially, I know that $I$ will never really understand it. $\qquad$ | A | B | C | D |
| f) Mathematics is not one of my strengths. ............ | A | B | C | D |

## 18. To do well in mathematics at school you need...

Circle one letter, A, B, C, or D, for each line.
Strongly
Strongly agree Agree Disagree disagree
a) lots of natural <talent/ability> $\qquad$ A
B
C
D
b) good luck. $\qquad$ A B
B $\quad$ C
D
c) lots of hard work studying at home $\qquad$ A B
B $\quad$ C
D
d) to memorize the textbook or notes. $\qquad$ A
B
C
D

## 19. How difficult do you think biological science is?

Circle one letter, $A, B, C$, or $D$, for each line.

|  | Strongly agree | Agree | Disagree | Strongly disagree |
| :---: | :---: | :---: | :---: | :---: |
| a) I would like biological science much more if it were not so difficult. $\qquad$ | A | B | C | D |
| b) Although I do my very best, biological science is more difficult for me than for many of my classmates $\qquad$ | A | B | C | D |
| c) Nobody can be good in every subject, and I am just not talented in biological science. $\qquad$ | A | B | C | D |
| d) Biological science is not one of my strengths...... | A | B | C | D |

20. How difficult do you think earth science is?

Circle one letter, A, B, C, or D, for each line.
Strongly

agree Agree Disagree | Strongly |
| :---: |
| disagree |

a) I would like earth science much more if it were not so difficult. ..................................... A

B
C
D
b) Although I do my very best, earth science is more difficult for me than for many of my classmates $\qquad$ A

B
C
D
c) Nobody can be good in every subject, and I am just not talented in earth science. $\qquad$ A
B
C
D
d) Earth science is not one of my strengths. $\qquad$ A
B
C
D

## 21. How difficult do you think chemistry is?

Circle one letter, A, B, C, or D, for each line.

|  |  | Strongly agree | Agree | Disagree | Strongly disagree |
| :---: | :---: | :---: | :---: | :---: | :---: |
| a) | I would like chemistry much more if it were not so difficult. $\qquad$ | A | B | C | D |
| b) | Although I do my very best, chemistry is more difficult for me than for many of my classmates | A | B | C | D |
| c) | Nobody can be good in every subject, and I am just not talented in chemistry. | A | B | C | D |
| d) | Chemistry is not one of my strengths. ............. | A | B | C | D |

## 22. How difficult do you think physics is?

Circle one letter, A, B, C, or D, for each line.

|  |  | Strongly agree | Agree | Disagree | Strongly disagree |
| :---: | :---: | :---: | :---: | :---: | :---: |
| a) | I would like physics much more <br> if it were not so difficult. $\qquad$ | A | B | C | D |
| b) | Although I do my very best, physics is more difficult for me than for many of my classmates | A | B | C | D |
| c) | Nobody can be good in every subject, and I am just not talented in physics. | A | B | C | D |
| d) | Physics is not one of my strengths. ................... | A | B | C | D |

23. To do well in science at school you need...

Circle one letter, A, B, C, or D, for each line.

| Strongly |  |
| :---: | :---: |
| agree | Agree $\quad$ Disagree | | Strongly |
| :---: |
| disagree |

a) lots of natural <talent/ability>............................. A $\quad$ B $\quad$ C D
b) good luck............................................................ A B C D
c) lots of hard work studying at home..................... $\quad$ A $\quad$ B $\quad$ C $\quad$ D
d) to memorize the textbook or notes...................... $\mathrm{A} \quad \mathrm{B} \quad \mathrm{C} \quad \mathrm{D}$

## 24. How much do you like..

Circle one letter, A, B, C, or D, for each line.

| Like <br> a lot$\quad$ Like | Dislike | Dislike <br> alot |
| :--- | :--- | :--- |



## 25. How much do you like using computers to learn...

Circle one letter, A, B, C, D, or E, for each line.

| Do not use | Like |  |  | Dislike |
| :---: | :---: | :---: | :---: | :---: |
| computers | a lot | Like | Dislike | a lot |

a) mathematics? $\qquad$ A
B
C D
E
b) science?
A
B
C
D
E

26a. Do you have access to the Internet...
Circle one letter, A or B, for each line.

|  | Yes | No |
| :---: | :---: | :---: |
| a) at home? | A | B |
| b) at school? | A | B |
| c) elsewhere? | A | B |

## 26b. If you have access to the Internet, how often do you do each of the following?

Circle one letter, $A, B, C$, or $D$, for each line.

| At least | At least <br> once a <br> once a <br> month | Afew <br> times <br> a year | Never |
| :---: | :---: | :---: | :---: |

d) Use e-mail to work with students in other schools on mathematics projects. $\qquad$ A B

C
D
e) Use e-mail to work with students in other schools on science projects.

A
B
C
D
f) Use the World Wide Web to access information for mathematics projects. $\qquad$ A

B
C
D
g) Use the World Wide Web to access information for science projects. $\qquad$ A

B
C
D
27. What do you think about mathematics?

Circle one letter, $A, B, C$, or $D$, for each line.
Strongly
agree

Agree Disagree

Strongly disagree
a) I enjoy learning mathematics. ............................. $\begin{array}{llll}\text { A } & \text { B } & \text { C }\end{array}$
b) Mathematics is boring. $\qquad$ $\begin{array}{llll}\text { A } & \text { B } & \text { C }\end{array}$
c) Mathematics is an easy subject. A B

C
D
d) Mathematics is important to everyone's life. $\qquad$ A B C

D
e) I would like a job that involved using mathematics. $\qquad$ A B

C
D

## 28. I need to do well in mathematics...

Circle one letter, $A, B, C$, or $D$, for each line.

|  | Strongly agree | Agree | Disagree | Strongly disagree |
| :---: | :---: | :---: | :---: | :---: |
| a) to get the job I want. | A | B | C | D |
| b) to please my parent(s). | A | B | C | D |
| c) to get into the <secondary school> or university I prefer. | A | B | C | D |
| d) to please myself............................................ | A | B | C | D |

## 29. How often does this happen in your mathematics lessons?

Circle one letter, A, B, C, or D, for each line.

| Almost <br> always | Pretty <br> often |
| :---: | :---: | | Once in |
| :---: |
| a while |$\quad$ Never

a) The teacher shows us how to do mathematics problems. $\qquad$ A
B
C
D
b) We copy notes from the board. $\qquad$ A
B
C
D
c) We have a quiz or test.

A
B
C
D
d) We work on mathematics projects.

A
B
C
D
e) We work from worksheets or textbooks on our own.

A
B
C
D
f) We use calculators. ............................................. A

B
C
D
g) We use computers.

A
h) We use things from everyday life in solving mathematics problems.

A
B
C
D
i) We work together in pairs or small groups .......... A

B $\quad$ C
j) The teacher gives us homework

A
k) We can begin our homework in class. $\qquad$ A
B
C
D

1) The teacher checks homework $\qquad$ A
B
C
D
m) We check each other's homework. $\qquad$
n) We discuss our completed homework
o) The teacher uses the board.
p) The teacher uses an overhead projector.

A
q) Students use the board.

A
r) Students use the overhead projector.

A
s) The teacher gets interrupted by messages, visitors, etc.

A
t) The teacher uses a computer to demonstrate ideas in mathematics.

A
B
C
D

## 30. When we begin a new topic in mathematics, we begin by...

Circle one letter, A, B, C, or D, for each line.
a) having the teacher explain the rules and definitions.

A
B
C
D
b) discussing a practical or story problem related to everyday life.

| A | B | C |
| :--- | :--- | :--- | :--- |

c) working together in pairs or small groups on a problem or project.

A
B
C
D
d) having the teacher ask us what we know related to the new topic. $\qquad$ B
C
D
e) looking at the textbook while the teacher talks about it. $\qquad$ B
C
D
f) trying to solve an example related to the new topic. A

B
C
D

## 31. Which science(s) are you studying this year?

Circle the letter next to each science you are studying.

| Biology ............................... A | (Complete Questions \#32-35) |
| :--- | :--- |
| Chemistry ............................. B | (Complete Questions \#36-39) |
| Earth Science ........................ C | (Complete Questions \#40-43) |
| Physics ................................. D | (Complete Questions \#44-47) |

## COMPLETE QUESTIONS ONLY FOR THOSE COURSES YOU ARE

 CURRENTLY TAKING.
## FILL IN ONLY IF YOU ARE STUDYING BIOLOGY

## 32. What do you think about biology?

Circle one letter, A, B, C, or D, for each line.
Strongly

agree Agree $\quad$ Disagree | Strongly |
| :---: |
| disagree |

a) I enjoy learning biology.
A
B
C
D
b) Biology is boring
A
B
C
D
c) Biology is an easy subject.
A B
C
D
d) Biology is important to everyone's life $\qquad$ A B
C
D
e) I would like a job that involved using biology.
A B
C
D

## 33. I need to do well in biology...

Circle one letter, A, B, C, or D, for each line.

Strongly agree A B

B
C
b) to please my parents. $\qquad$ A

A B
C
D
d) to please myself.. $\qquad$

B
C

Strongly disagree

| a) to get the job I want. .......................................... | A | B | C | D |  |
| :--- | :--- | :--- | :--- | :--- | :--- |
| b) to please my parents. ................................................... A | B | C | D |  |  |
| c) to get into the <secondary school> or university |  |  |  |  |  |
| I prefer. ............................................................... A | B | C | D |  |  |
| d) to please myself................................................... | A | B | C | D |  |

## FILL IN ONLY IF YOU ARE STUDYING BIOLOGY

## 34. How often does this happen in your biology lessons?

Circle one letter, A, B, C, or D, for each line.
a) The teacher shows us how to do biology problems.

A
b) We copy notes from the board. ........................... A

A
B
C
D
c) We have a quiz or test.

A
d) We work on biology projects.

A
e) We work from worksheets or textbooks on our own. $\qquad$
f) We use calculators $\qquad$ A
g) We use computers $\qquad$ A
h) We use things from every day life in solving biology problems. $\qquad$ A
i) We work together in pairs or small groups $\qquad$ A
j) The teacher gives us homework. $\qquad$ A
k) We can begin our homework in class. $\qquad$ A

1) The teacher checks homework. $\qquad$ A
m) We check each other's homework. $\qquad$
n) We discuss our completed homework. $\qquad$ A
o) The teacher gives a demonstration of an experiment.

A
p) We ourselves do an experiment or practical investigation in class.

A
B
B

B

B

B

B
C
D
v) The teacher uses a computer to demonstrate ideas in biology.

## FILL IN ONLY IF YOU ARE STUDYING BIOLOGY

## 35. When we begin a new topic in biology, we begin by...

Circle one letter, $A, B, C$, or $D$, for each line.
Almost

always $\quad$\begin{tabular}{c}
Pretty <br>
often

$\quad$

Once in <br>
a while
\end{tabular}$\quad$ Never

a) having the teacher explain the rules and definitions.

A
B
C
D
b) discussing a practical or story problem related to everyday life.

A
B
C
D
c) working together in small groups on a problem or project.

A
B
C
D
d) having the teacher ask us what we know related to the new topic. $\qquad$ A
e) looking at the textbook while the teacher talks about it.

A
f) trying to solve an example related to the new topic. A

B
C
D

## FILL IN ONLY IF YOU ARE STUDYING CHEMISTRY

## 36. What do you think about chemistry?

Circle one letter, A, B, C, or D, for each line.
Strongly

agree Agree $\quad$ Disagree | Strongly |
| :---: |
| disagree |

a) I enjoy learning chemistry. ................................. A $\quad$ B $C$ D
b) Chemistry is boring. ............................................ A $\quad$ B $C$ C
c) Chemistry is an easy subject. .............................. A $\quad$ B $\quad$ C
d) Chemistry is important to everyone's life............
$\begin{array}{llll}\text { A } & \text { B } & \text { C }\end{array}$
e) I would like a job that involved using chemistry. $\begin{array}{lllll}\text { A } & \text { B } & \text { C } & \text { D }\end{array}$

## 37. I need to do well in chemistry...

Circle one letter, A, B, C, or D, for each line.
Strongly

agree Agree Disagree | Strongly |
| :---: |
| disagree |

a) to get the job I want $\qquad$ A B
C
D
b) to please my parents $\qquad$ A B
B C
D
c) to get into the <secondary school> or university I prefer. $\qquad$ A B C D
d) to please myself. A
B
C
D

## FILL IN ONLY IF YOU ARE STUDYING CHEMISTRY

## 38. How often does this happen in chemistry lessons?

Circle one letter, A, B, C, or D, for each line.

|  |  | Almost always | Pretty often | Once in a while | Never |
| :---: | :---: | :---: | :---: | :---: | :---: |
| a) | The teacher shows us how to do chemistry problems. | A | B | C | D |
| b) | We copy notes from the board. ......................... | A | B | C | D |
| c) | We have a quiz or test. | A | B | C | D |
| d) | We work on chemistry projects. | A | B | C | D |
| e) | We work from worksheets or textbooks on our own. | A | B | C | D |
| f) | We use calculators. | A | B | C | D |
| g) | We use computers. ............................................. | A | B | C | D |
| h) | We use things from every day life in solving chemistry problems. | A | B | C | D |
| i) | We work together in pairs or small groups. ......... | A | B | C | D |
| j) | The teacher gives us homework. ......................... | A | B | C | D |
| k) | We can begin our homework in class. ................ | A | B | C | D |
| 1) | The teacher checks homework. | A | B | C | D |
| m) | We check each other's homework. . | A | B | C | D |
| n) | We discuss our completed homework. ................ | A | B | C | D |
| o) | The teacher gives a demonstration of an experiment. | A | B | C | D |
| p) | We ourselves do an experiment or practical investigation in class. $\qquad$ | A | B | C | D |
| q) | The teacher uses the board. | A | B | C | D |
| r) | The teacher uses an overhead projector. .............. | A | B | C | D |
| s) | Students use the board. ..................................... | A | B | C | D |
| t) | Students use the overhead projector. .................. | A | B | C | D |
| u) | The teacher gets interrupted by messages, visitors, etc. $\qquad$ | A | B | C | D |
| v) | The teacher uses a computer to demonstrate ideas in chemistry. $\qquad$ | A | B | C | D |

## FILL IN ONLY IF YOU ARE STUDYING CHEMISTRY

## 39. When we begin a new topic in chemistry, we begin by...

Circle one letter, A, B, C, or D, for each line.
a) having the teacher explain the rules and definitions.

A
B
C
D
b) discussing a practical or story problem related to everyday life $\qquad$ B
C
D
c) working together in small groups on a problem or project.

A
B
C
D
d) having the teacher ask us what we know related to the new topic. $\qquad$ B
C
D
e) looking at the textbook while the teacher talks about it. $\qquad$ A

B
C
D
f) trying to solve an example related to the new topic.

A
B
C
D

## FILL IN ONLY IF YOU ARE STUDYING EARTH SCIENCE

## 40. What do you think about earth science?

Circle one letter, A, B, C, or D, for each line.
Strongly

agree Agree $\quad$ Disagree | Strongly |
| :---: |
| disagree |

a) I enjoy learning earth science. ............................ A $\quad$ B $\quad$ C D
b) Earth science is boring.

A
B C
D
c) Earth science is an easy subject.

A
B
C
D
d) Earth science is important to everyone's life.

A
B
C
D
e) I would like a job that involved using earth science.

A
B
C
D

## 41. I need to do well in earth science...

Circle one letter, A, B, C, or D, for each line.

|  |  | Strongly agree | Agree | Disagree | Strongly disagree |
| :---: | :---: | :---: | :---: | :---: | :---: |
| a) | to get the job I want. ....................................... | A | B | C | D |
| b) | to please my parents. ...................................... | A | B | C | D |
| c) | to get into the <secondary school> or university I prefer. $\qquad$ | A | B | C | D |
| d) | to please myself............................................. | A | B | C | D |

## FILL IN ONLY IF YOU ARE STUDYING EARTH SCIENCE

## 42. How often does this happen in your earth science lessons?

Circle one letter, A, B, C, or D, for each line.

|  |  | Almost always | Pretty <br> often | Once in a while | Never |
| :---: | :---: | :---: | :---: | :---: | :---: |
| a) | The teacher shows us how to do earth science problems. | A | B | C | D |
| b) | We copy notes from the board. ........... | A | B | C | D |
| c) | We have a quiz or test. .................. | A | B | C | D |
| d) | We work on earth science projects. | A | B | C | D |
| e) | We work from worksheets or textbooks on our own. | A | B | C | D |
| f) | We use calculators. ... | A | B | C | D |
| g) | We use computers. | A | B | C | D |
| h) | We use things from every day life in solving earth science problems. | A | B | C | D |
| i) | We work together in pairs or small groups. | A | B | C | D |
| j) | The teacher gives us homework. ........... | A | B | C | D |
| k) | We can begin our homework in class. | A | B | C | D |
| 1) | The teacher checks homework. | A | B | C | D |
| m) | We check each other's homework. ...... | A | B | C | D |
| n) | We discuss our completed homework. ........ | A | B | C | D |
| o) | The teacher gives a demonstration of an experiment. | A | B | C | D |
| p) | We ourselves do an experiment or practical investigation in class. | A | B | C | D |
| q) | The teacher uses the board. | A | B | C | D |
| r) | The teacher uses an overhead projector. ............. | A | B | C | D |
| s) | Students use the board. | A | B | C | D |
| t) | Students use the overhead projector. ................. | A | B | C | D |
| u) | The teacher gets interrupted by messages, visitors, etc. $\qquad$ | A | B | C | D |
| v) | The teacher uses a computer to demonstrate ideas in earth science. $\qquad$ | A | B | C | D |

## FILL IN ONLY IF YOU ARE STUDYING EARTH SCIENCE

43. When we begin a new topic in earth science, we begin by...

Circle one letter, A, B, C, or D, for each line.

|  | Almost always | Pretty often | Once in a while | Never |
| :---: | :---: | :---: | :---: | :---: |
| a) having the teacher explain the rules and definitions. $\qquad$ | A | B | C | D |
| b) starting with a practical or story problem related to everyday life. | A | B | C | D |
| c) working together in small groups on a problem or project. | A | B | C | D |
| d) having the teacher ask us what we know related to the new topic. | A | B | C | D |
| e) looking at the textbook while the teacher talks about it. $\qquad$ | A | B | C | D |
| f) trying to solve an example related to the new topic. | A | B | C | D |

## FILL IN ONLY IF YOU ARE STUDYING PHYSICS

44. What do you think about physics?

Circle one letter, A, B, C, or D, for each line.

|  | Strongly <br> agree | Agree | Disagree |
| :--- | :--- | :--- | :--- | :--- | :--- | | Strongly |
| :---: |
| disagree |

## 45. I need to do well in physics...

Circle one letter, $A, B, C$, or $D$, for each line.

|  | Strongly agree | Agree | Disagree | Strongly disagree |
| :---: | :---: | :---: | :---: | :---: |
| a) to get the job I want. ..................................... | A | B | C | D |
| b) to please my parents. ....................................... | A | B | C | D |
| c) to get into the <secondary school> or university <br> I prefer. | A | B | C | D |
| d) to please myself............................................. | A | B | C | D |

## FILL IN ONLY IF YOU ARE STUDYING PHYSICS

46. How often does this happen in your physics lessons?

Circle one letter, $A, B, C$, or $D$, for each line.
Almost

always $\quad$\begin{tabular}{c}
Pretty <br>
often

$\quad$

Once in <br>
a while
\end{tabular}$\quad$ Never

a) The teacher shows us how to do physics problems.

A
B
C
D
b) We copy notes from the board. $\qquad$
A
B
C
D
c) We have a quiz or test

A
B
C
D
d) We work on physics projects.

A
B
C
D
e) We work from worksheets or textbooks on our own.

A
B
C
D
f) We use calculators $\qquad$ A
B
C
D
g) We use computers

A
B
C
D
h) We use things from every day life in solving physics problems.

A
B
C
D
i) We work together in pairs or small groups. $\qquad$ A
B
C
D
j) The teacher gives us homework

A
B
C
D
k) We can begin our homework in class.

A

1) The teacher checks homework $\qquad$ A
B
B
C
D
n) We discuss our completed homework.

A
o) The teacher gives a demonstration of an experiment.

A
p) We ourselves do an experiment or practical investigation in class.

A
B
B
C $\quad \mathrm{D}$
r) The teacher uses an overhead projector.

B
C
D
s) Students use the board. $\qquad$ B
C
D
t) Students use the overhead projector.

A
B
C
D
u) The teacher gets interrupted by messages, visitors, etc.

A
B
C
D
v) The teacher uses a computer to demonstrate ideas in physics.

A
B
C
D

## FILL IN ONLY IF YOU ARE STUDYING PHYSICS

## 47. When we begin a new topic in physics, we begin by...

Circle one letter, A, B, C, or D, for each line.
a) having the teacher explain the rules and definitions.

A
B C
D
b) discussing a practical or story problem related to everyday life.

A
B
C
D
c) working together in small groups on a problem or project.

A
B
C
D
d) having the teacher ask us what we know related to the new topic. $\qquad$ A
B
C
D
e) looking at the textbook while the teacher talks about it. $\qquad$ A

B
C
D
f) trying to solve an example related to the new topic. $\qquad$ A

B
C
D

THANK YOU for the thought and effort you have put into answering these questions. We wish you well in all that you do.

## 48. Do each of these people live at home with you most or all of the time?

Circle either A or B for each line.
Yes No
a) mother A ..... B
b) father A ..... B
c) one or more brothers ..... A ..... B
d) one or more sisters A ..... B
e) stepmother ..... A ..... B
f) stepfather A ..... B
g) one or more grandparents A ..... B
h) another relative or relatives (uncle, aunt, cousin, etc.) A ..... B
i) another person or persons (not relatives) ..... A ..... B

## 49. Altogether, how many people live in your home?

Write in the total number of people.
$\qquad$ (Don't forget to include yourself.)

## 50. Outside of school, how often do you do these activities?

Circle one letter, $A, B, C$, or $D$, for each line.

| a) read a book or magazine ................................... | A | B | C | D |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| b) visit a museum or art exhibition.......................... | A | B | C | D |
| c) attend a concert ......................................................... A | B | C | D |  |
| d) go to the theatre ........................................................ | A | B | C | D |
| e) go to the movies ...................................... | A | B | C | D |

51. Outside of school, how often do you watch the following kinds of programs on television or video?

Circle one letter, A, B, C, or D, for each line.

|  | About every day | About once a week | About once a month | Rarely |
| :---: | :---: | :---: | :---: | :---: |
| a) news or documentaries. | A | B | C | D |
| b) opera, ballet or classical music ......................... | A | B | C | D |
| c) nature, wildlife or history | A | B | C | D |
| d) popular music ................................................ | A | B | C | D |
| e) sports ........................................................... | A | B | C | D |
| f) video games .................................................. | A | B | C | D |
| g) cartoons ........................................................ | A | B | C | D |
| h) comedy, adventure or suspense ......................... | A | B | C | D |

## 52. How often did any of these things happen last month in school?

Circle one letter, A, B, C, or D, for each line.

Never \begin{tabular}{ccc}

| Once or |
| :---: |
| twice | \& | $3-4$ |
| :---: |
| times | \& | 5 or |
| :---: |
| more |

\end{tabular}

| a) | I skipped a class. | A | B | C | D |
| :---: | :---: | :---: | :---: | :---: | :---: |
| b) | Something of mine was stolen. ......................... | A | B | C | D |
| c) | I thought another student might hurt me. ............ | A | B | C | D |
| d) | Some of my friends skipped classes. ................. | A | B | C | D |
| e) | Some of my friends had things stolen................ | A | B | C | D |
| f) | Some of my friends were hurt by other students. | A | B | C | D |

## 53. Listed below are some of the world's environmental problems. How much do you think the application of science can help in addressing these problems?

Circle one letter, A, B, C, or D, for each line.

| Not | Very <br> at all <br> little | SomewhatAgreat <br> deal |
| :---: | :---: | :---: |


| a) air pollution. | A | B | C | D |
| :---: | :---: | :---: | :---: | :---: |
| b) water pollution | A | B | C | D |
| c) destruction of forests. | A | B | C | D |
| d) endangered species ......................................... | A | B | C | D |
| e) damage to the ozone layer.. | A | B | C | D |
| f) problems from nuclear power plants.................. | A | B | C | D |

## 54. If you were going to choose a career that uses a science, which science would you prefer to use?

Circle one letter, $A, B, C$, or $D$.
$\qquad$
Chemistry
B

Earth Science ....................................................................................... C
Physics ................................................................................................D

## STOP

## There are no more questions in this booklet

If you have finished answering this booklet before the time is over then you may go back and review your answers. Thank you for taking the time to answer these questions carefully.

