

| | Identification Label | |
|----------|----------------------|--|
| School: | | |
| Class: | | |
| Student: | | |

IEA Third International Mathematics and Science Study - Repeat

Student Questionnaire (s) Main Survey

TIMSS Study Center Boston College Chestnut Hill, MA 02467 USA (Institute Address)

TIMSS-R Ref.No. 98-0036 ©IEA, Amsterdam (1998)

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 | | |
|---------------------|-----|---------|
| 1. I attend school. | Yes | No B |

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 | | | | | | | |
|---------------------|-------------------|----------|----------|----------------------|--|--|--|
| | Strongly agree | Agree | Disagree | Strongly disagree | | | |
| 1. I like ice cream | A | X | С | D | | | |
| | | <u> </u> | | | | | |

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.

<____day ____ month ____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 _____ 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 | Α |
|-------------------------|---|
| sometimes | В |
| 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.

| | | No time | Less than 1 hour | 1-2 hours | 3-5 hours | More than 5 hours |
|----|---|------------|------------------------|--------------|--------------|-------------------------|
| a) | taking <extra cramming="" lessons="" school=""> in mathematics?</extra> | А | В | С | D | E |
| b) | taking <extra cramming="" lessons="" school=""> in science?</extra> | A | В | С | D | E |
| c) | participating in science or mathematics clubs? | А | В | С | D | E |
| d) | working at a paid job? | А | В | С | D | E |

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

| | | No time | Less than 1 hour | 1-2 hours | 3-5 hours | More than 5 hours |
|----|--|------------|------------------------|--------------|--------------|-------------------------|
| a) | watching television and videos | А | В | С | D | E |
| b) | playing computer games | А | В | С | D | E |
| c) | playing or talking with friends outside of school | А | В | С | D | Е |
| d) | doing jobs at home | А | В | С | D | E |
| e) | playing sports | А | В | С | D | E |
| f) | reading a book for enjoyment | А | В | С | D | E |
| g) | studying mathematics or doing mathematics homework after school | А | В | С | D | E |
| h) | studying science or doing science homework after school | А | В | С | D | E |
| i) | studying or doing homework in school subjects other than mathematics and science | А | В | С | D | Е |

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 did="" go="" not="" or="" primary="" school="" school,="" to=""></some> | A | А |
| <finished primary="" school=""></finished> | B | В |
| <some school="" secondary=""></some> | C | С |
| <finished school="" secondary=""></finished> | D | D |
| <some after<br="" education="" technical="" vocational="">secondary school></some> | E | Е |
| <some university=""></some> | F | F |
| <finished university=""></finished> | G | G |
| I don't know | Н | Н |
| | | |

8. How far in school do you expect to go?

Circle one letter, A, B, C, D, E, or F.

| <some school="" secondary=""></some> | . A |
|--|-----|
| <finish school="" secondary=""></finish> | B |
| <some education<br="" technical="" vocational="">after secondary school></some> | C |
| <some university=""></some> | D |
| <finish university=""></finish> | E |
| I don't know | . F |

| | | Yes | No |
|-----|--|-----|----|
| 9a. | Was your mother born in <country>? Circle either A or B.</country> | А | В |
| 9b. | Was your father born in <country>? Circle either A or B.</country> | А | В |

10. 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)..... А enough to fill one shelf (11-25 books)..... В С enough to fill one bookcase (26-100 books)..... enough to fill two bookcases (101-200 books) D enough to fill three or more bookcases (more than 200) Ε

11. Do you have any of these items at your home?

Circle either A or B for each line.

| | | Yes | No |
|----|---------------------------------------|-----|----|
| a) | calculator | А | В |
| b) | computer | А | В |
| c) | study desk/table for your use | А | В |
| d) | dictionary | А | В |
| e) | <country-specific></country-specific> | А | В |
| f) | <country-specific></country-specific> | А | В |
| g) | <country-specific></country-specific> | А | В |
| h) | <country-specific></country-specific> | А | В |
| i) | <country-specific></country-specific> | А | В |
| j) | <country-specific></country-specific> | А | В |
| k) | <country-specific></country-specific> | А | В |
| 1) | <country-specific></country-specific> | А | В |
| m) | <country-specific></country-specific> | А | В |
| n) | <country-specific></country-specific> | А | В |
| 0) | <country-specific></country-specific> | А | В |
| p) | <country-specific></country-specific> | А | В |

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

| | | Strongly agree | Agree | Disagree | Strongly disagree |
|----|------------------------------|-------------------|-------|----------|----------------------|
| a) | do well in science at school | А | В | С | D |

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

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

| | | Strongly agree | Agree | Disagree | Strongly disagree |
|----|--|-------------------|-------|----------|----------------------|
| a) | lots of natural <talent ability=""></talent> | А | В | С | D |
| b) | good luck | А | В | С | D |
| c) | lots of hard work studying at home | А | В | С | D |
| d) | to memorize the textbook or notes | А | В | С | D |

19. How difficult do you think biological science is?

| | | Strongly agree | Agree | Disagree | Strongly disagree |
|-----|--|-------------------|-------|----------|----------------------|
| a) | I would like biological science much more if it were not so difficult | А | В | С | D |
| b) | Although I do my very best, biological science is more difficult for me than for many of my classmates | | В | С | D |
| c) | Nobody can be good in every subject, and I am just not talented in biological science. | А | В | С | D |
| det | teRiAloBical, suiEncfoiseachdineeof my strengths | А | В | С | 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 | А | В | C | D |
| b) | Although I do my very best, chemistry is more difficult for me than for many of my classmates. | А | В | С | D |
| c) | Nobody can be good in every subject, and I am just not talented in chemistry. | А | В | С | D |
| d) | Chemistry is not one of my strengths | А | В | С | 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 if it were not so difficult | А | В | С | D |
| b) | Although I do my very best, physics is more difficult for me than for many of my classmates. | А | В | С | D |
| c) | Nobody can be good in every subject, and I am just not talented in physics | А | В | С | D |
| d) | Physics is not one of my strengths. | А | В | С | 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 | Disagree | Strongly disagree |
|----|--|-------------------|-------|----------|----------------------|
| a) | lots of natural <talent ability=""></talent> | А | В | С | D |
| b) | good luck | А | В | С | D |
| c) | lots of hard work studying at home | А | В | С | D |
| d) | to memorize the textbook or notes | А | В | С | D |

24. How much do you like...

| | | Like a lot | Like | Dislike | Dislike a lot |
|----|---------------------|---------------|------|---------|------------------|
| a) | mathematics? | А | В | С | D |
| b) | biological science? | А | В | С | D |
| c) | earth science? | А | В | С | D |
| d) | chemistry? | А | В | С | D |
| e) | physics? | А | В | С | D |

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 computers | | Like | | Dislike a lot |
|----|--------------|----------------------------|---|------|---|------------------|
| a) | mathematics? | . A | В | С | D | Е |
| b) | science? | . A | В | С | D | E |

26a. Do you have access to the Internet...

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

Yes No

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. | А | В | С | D |
| b) | Mathematics is boring | А | В | С | D |
| c) | Mathematics is an easy subject. | А | В | С | D |
| d) | Mathematics is important to everyone's life | А | В | С | D |
| e) | I would like a job that involved using mathematics. | А | В | С | D |

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

| | | Strongly agree | Agree | Disagree | Strongly disagree |
|----|---|-------------------|-------|----------|----------------------|
| a) | to get the job I want | Α | В | С | D |
| b) | to please my parent(s). | Α | В | С | D |
| c) | to get into the <secondary school=""> or university I prefer.</secondary> | A | В | С | D |
| d) | to please myself | Α | В | С | D |

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

| | | Almost always | Pretty often | Once in a while | Never |
|----|---|------------------|-----------------|--------------------|-------|
| a) | The teacher shows us how to do mathematics problems. | А | В | С | D |
| b) | We copy notes from the board | А | В | С | D |
| c) | We have a quiz or test | А | В | С | D |
| d) | We work on mathematics projects | А | В | С | D |
| e) | We work from worksheets or textbooks on our own. | А | В | С | D |
| f) | We use calculators | А | В | С | D |
| g) | We use computers. | А | В | С | D |
| h) | We use things from everyday life in solving mathematics problems. | А | В | С | D |

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 | Disagree | Strongly disagree |
|----|--|-------------------|-------|----------|----------------------|
| a) | I enjoy learning biology | А | В | С | D |
| b) | Biology is boring | А | В | С | D |
| c) | Biology is an easy subject. | А | В | С | D |
| d) | Biology is important to everyone's life | А | В | С | D |
| e) | I would like a job that involved using biology | А | В | С | D |

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

| | | Strongly agree | Agree | Disagree | Strongly disagree |
|----|---|-------------------|-------|----------|----------------------|
| a) | to get the job I want | А | В | С | D |
| b) | to please my parents | А | В | С | D |
| c) | to get into the <secondary school=""> or university I prefer.</secondary> | А | В | С | D |
| d) | to please myself | А | В | С | 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. | Almost always | Pretty often | Once in a while | Never |
|----|--|------------------|-----------------|--------------------|-------|
| a) | The teacher shows us how to do biology problems. | А | В | С | D |
| b) | We copy notes from the board. | А | В | С | D |
| c) | We have a quiz or test. | А | В | С | D |
| d) | We work on biology projects. | А | В | С | D |
| e) | We work from worksheets or textbooks on our own | А | В | С | D |
| f) | We use calculators. | А | В | С | D |
| g) | We use computers. | А | В | С | D |
| h) | We use things from every day life in solving biology problems. | А | В | С | D |
| i) | We work together in pairs or small groups | А | В | С | D |
| j) | The teacher gives us homework | А | В | С | D |
| k) | We can begin our homework in class | А | В | С | D |
| 1) | The teacher checks homework | А | В | С | D |
| m) | We check each other's homework | А | В | С | D |
| n) | We discuss our completed homework | А | В | С | D |
| 0) | The teacher gives a demonstration of an experiment | А | В | С | D |
| p) | We ourselves do an experiment or practical investigation in class. | А | В | С | D |
| q) | The teacher uses the board | А | В | С | D |
| r) | The teacher uses an overhead projector | А | В | С | D |
| s) | Students use the board | А | В | С | D |
| t) | Students use the overhead projector | А | В | С | D |
| u) | The teacher gets interrupted by messages, visitors, etc. | А | В | С | D |
| v) | The teacher uses a computer to demonstrate ideas in biology. | A | В | С | D |

FILL IN ONLY IF YOU ARE STUDYING BIOLOGY

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

| | | Almost always | Pretty often | Once in a while | Never |
|----|--|------------------|-----------------|--------------------|-------|
| a) | having the teacher explain the rules and definitions. | А | В | С | D |
| b) | discussing a practical or story problem related to everyday life. | А | В | С | D |
| c) | working together in small groups on a problem or project. | А | В | С | D |
| d) | having the teacher ask us what we know related to the new topic | А | В | С | D |
| e) | looking at the textbook while the teacher talks about it. | А | В | С | D |
| f) | trying to solve an example related to the new topic | А | В | С | 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 | Disagree | Strongly disagree |
|----|---|-------------------|-------|----------|----------------------|
| a) | I enjoy learning chemistry | А | В | С | D |
| b) | Chemistry is boring | А | В | С | D |
| c) | Chemistry is an easy subject. | А | В | С | D |
| d) | Chemistry is important to everyone's life | А | В | С | D |
| e) | I would like a job that involved using chemistry. | А | В | С | D |

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

| | | Strongly agree | Agree | Disagree | Strongly disagree |
|----|---|-------------------|-------|----------|----------------------|
| a) | to get the job I want | А | В | С | D |
| b) | to please my parents | А | В | С | D |
| c) | to get into the <secondary school=""> or university I prefer.</secondary> | А | В | С | D |
| d) | to please myself | Α | В | С | D |

FILL IN ONLY IF YOU ARE STUDYING CHEMISTRY

38. How often does this happen in chemistry lessons?

| | | | • | Once in a while | Never |
|----|--|---|---|--------------------|-------|
| a) | The teacher shows us how to do chemistry problems. | А | В | С | D |

FILL IN ONLY IF YOU ARE STUDYING CHEMISTRY

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

| | | Almost always | Pretty often | Once in a while | Never |
|----|--|------------------|-----------------|--------------------|-------|
| a) | having the teacher explain the rules and definitions. | А | В | С | D |
| b) | discussing a practical or story problem related to everyday life. | А | В | С | D |
| c) | working together in small groups on a problem or project. | А | В | С | D |
| d) | having the teacher ask us what we know related to the new topic | А | В | С | D |
| e) | looking at the textbook while the teacher talks about it | А | В | С | D |
| f) | trying to solve an example related to the new topic | А | В | С | 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 | Disagree | Strongly disagree |
|----|---|-------------------|-------|----------|----------------------|
| a) | I enjoy learning earth science. | А | В | С | D |
| b) | Earth science is boring. | А | В | С | D |
| c) | Earth science is an easy subject. | А | В | С | D |
| d) | Earth science is important to everyone's life | А | В | С | D |
| e) | I would like a job that involved using earth science. | А | В | С | D |

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

| | | Strongly agree | Agree | Disagree | Strongly disagree |
|----|---|-------------------|-------|----------|----------------------|
| a) | to get the job I want | A | В | С | D |
| b) | to please my parents | A | В | С | D |
| c) | to get into the <secondary school=""> or university I prefer.</secondary> | . А | В | С | D |
| d) | to please myself | A | В | С | D |

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

| | | Almost always | Pretty often | Once in a while | Never | |
|----|--|------------------|-----------------|--------------------|-------|-----|
| a) | The teacher shows us how to do earth science problems. | А | В | С | D | |
| b) | We copy notes from the board | А | В | С | D | |
| c) | We have a quiz or test. | А | В | С | D | |
| d) | We work on earth science projects | А | В | С | D | |
| e) | We work from worksheets or textbooks on our own | А | В | С | D | |
| f) | We use calculators. | А | В | С | D | |
| g) | We use computers. | А | В | С | D | |
| h) | We use m6(We use m6(66cboard.)2 1 y dayeacd. |)2Ro Ay | Av6cb | | g | . W |

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

Circle one

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 agree | Agree | Disagree | Strongly disagree |
|----|---|-------------------|-------|----------|----------------------|
| a) | I enjoy learning physics. | А | В | С | D |
| b) | Physics is boring | А | В | С | D |
| c) | Physics is an easy subject | А | В | С | D |
| d) | Physics is important to everyone's life | А | В | С | D |
| | | | | | |

e) I would like a job that involved using physics.....Disagree

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 Pretty Once in

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.

| | | Almost always | Pretty often | Once in a while | Never |
|----|--|------------------|-----------------|--------------------|-------|
| a) | having the teacher explain the rules and definitions. | А | В | С | D |
| b) | discussing a practical or story problem related to everyday life. | А | В | С | D |
| c) | working together in small groups on a problem or project. | А | В | С | D |
| d) | having the teacher ask us what we know related to the new topic | А | В | С | D |
| e) | looking at the textbook while the teacher talks about it | А | В | С | D |
| f) | trying to solve an example related to the new topic | А | В | С | 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 | А | В |
| b) | father | А | В |
| c) | one or more brothers | А | В |
| d) | one or more sisters | А | В |
| e) | stepmother | А | В |
| f) | stepfather | А | В |
| g) | one or more grandparents | А | В |
| h) | another relative or relatives (uncle, aunt, cousin, etc.) | А | В |
| i) | another person or persons (not relatives) | А | В |

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

Write in the total number of people.

_____(Don't forget to include yourself.)

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

| | | About every day | About once a week | About once a month | Rarely |
|----|----------------------------------|-----------------------|-------------------------|--------------------------|--------|
| a) | read a book or magazine | А | В | С | D |
| b) | visit a museum or art exhibition | А | В | С | D |
| c) | attend a concert | А | В | С | D |
| d) | go to the theatre | А | В | С | D |
| e) | go to the movies | А | В | С | 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 at all | Very little | Somewhat | A great deal |
|----|------------------------------------|---------------|----------------|----------|-----------------|
| a) | air pollution | А | В | С | D |
| b) | water pollution | А | В | С | D |
| c) | destruction of forests | А | В | С | D |
| d) | endangered species | А | В | С | D |
| e) | damage to the ozone layer | А | В | С | D |
| f) | problems from nuclear power plants | А | В | С | 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.

| Biology | A |
|---------------|---|
| 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.