DRAFT

Identification Label

Teacher Name:

Class Name:

Teacher ID:

Teacher Link #:

OMB # to go here

TIMSS 2011

Field Test Version

Teacher Questionnaire

Grade 4

National Center for Education Statistics
U.S. Department of Education
1990 K St., NW
Washington, DC 20006

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

Teacher *Questionnaire*

Your school has agreed to participate in TIMSS 2011 (Trends in International Mathematics and Science Study), an educational research project sponsored by the International Association for the Evaluation of Educational Achievement (IEA). TIMSS measures trends in student achievement in mathematics and science and studies differences in national education systems in more than 60 countries in order to help improve teaching and learning worldwide.

This questionnaire is addressed to teachers of fourth-grade students, and seeks information about teachers' academic and professional backgrounds, classroom resources, instructional practices, and attitudes toward teaching. Since your class has been selected as part of a nationwide sample, your responses are very important in helping to describe primary education in the United States.

Some of the questions in the questionnaire refer to the "TIMSS class" or "this class". This is the class that is identified on the front of this booklet, and which will be tested as part of TIMSS in your school. If you teach some but not all of the students in the TIMSS class, please think only of the students that you teach when answering these class-specific questions. It is important that you answer each question carefully so that the information that you provide reflects your situation as accurately as possible.

Since TIMSS is an international study and all countries are using the same questionnaire, you may find that some of the questions seem unusual or are not entirely relevant to you or schools in the United States. Nevertheless, it is important that you do your best to answer all of the questions so comparisons can be made across countries in the studies.

It is estimated that you will need approximately 30 minutes to complete this questionnaire. We appreciate the time and effort that this takes and thank you for your cooperation and contribution.

When you have completed the questionnaire, please place it in the accompanying envelope and return it to the school coordinator.

NCES is authorized to collect information from this questionnaire under the Education Sciences Reform Act of 2002 (Public Law 107-279, Section 153). You do not have to provide the information requested. However, the information you provide will help the U.S. Department of Education's ongoing efforts to understand better how the educational system in the United States compares to that in other countries. There are no penalties should you choose not to participate in this study. Your answers may be used only for statistical purposes and may not be disclosed, or used, in identifiable form for any other purpose (Public Law 107-279, Section 183 and Title V, subtitle A of the E-Government Act of 2002 (P.L. 107-347)). Your responses will be combined with those from other participants to produce summary statistics and reports.

This survey is estimated to take an average of 30 minutes, including time for reviewing instructions, and completing and reviewing the collection of information. An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to: Stephen Provasnik, National Center for Education Statistics, U.S. Department of Education, 1990 K Street NW, Room 9034, Washington, DC 20006-5650. Do not return the completed form to this address.

Thank you.

TIMSS 2011

1

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

_____ years
*Please **round** to the nearest whole number.*

2

Are you female or male?

*Check **one** circle only.*

Female --◯
Male --◯

3

How old are you?

*Check **one** circle only.*

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

4

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

*Check **one** circle only.*

Did not complete high school --◯
Completed high school --◯
Completed a vocational/technical certificate after high school --◯
Completed an Associate's degree (AA) in vocational/technical program --◯
Completed an Associate's degree (AA) or Bachelor's degree --◯
Completed an academic Master's degree, postgraduate certificate program (e.g., teaching) or first professional degree (e.g., law, medicine, dentistry) --◯
Completed a doctorate (Ph.D. or Ed.D) --◯

5

A. During your college or university education, what was your <u>major or main</u> area(s) of study?

*Check **one** circle for each line.*

	Yes	No
a) Education - Primary/Elementary	◯	◯
b) Education - Secondary	◯	◯
c) Mathematics	◯	◯
d) Science	◯	◯
e) English	◯	◯
f) Other	◯	◯

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

*Check **one** circle for each line.*

	Yes	No
a) Mathematics	◯	◯
b) Science	◯	◯
c) Language/reading	◯	◯
d) Other subject	◯	◯

6

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

*Check **one** circle for each line.*

	Very high	High	Medium	Low	Very low
a) Teachers' job satisfaction	○	○	○	○	○
b) Teachers' understanding of the school's curricular goals	○	○	○	○	○
c) Teachers' degree of success in implementing the school's curriculum	○	○	○	○	○
d) Teachers' expectations for student achievement	○	○	○	○	○
e) Parental support for student achievement	○	○	○	○	○
f) Parental involvement in school activities	○	○	○	○	○
g) Students' regard for school property	○	○	○	○	○
h) Students' desire to do well in school	○	○	○	○	○

7

Thinking about your current school, indicate the extent to which you agree or disagree with each of the following statements.

*Check **one** circle for each line.*

	Agree a lot	Agree a little	Disagree a little	Disagree a lot
a) This school is located in a safe neighborhood	○	○	○	○
b) I feel safe at this school	○	○	○	○
c) This school's security policies and practices are sufficient	○	○	○	○
d) The students behave in an orderly manner	○	○	○	○
e) The students are respectful of the teachers	○	○	○	○

8

In your current school, how severe is each problem?

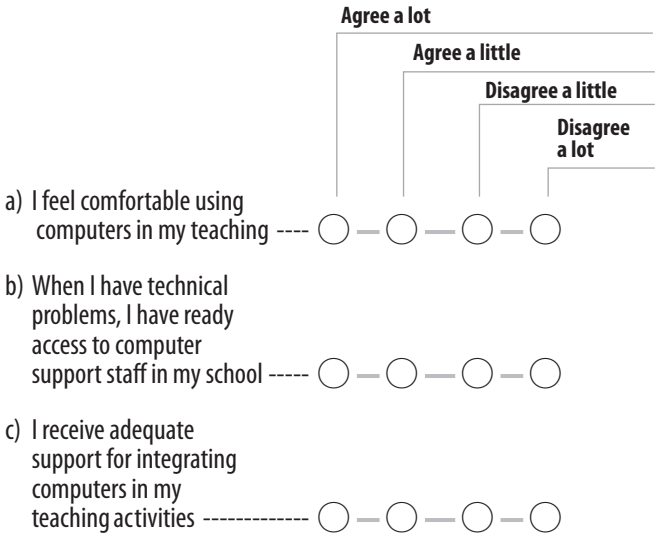
*Check **one** circle for each line.*

	Not a problem	Minor problem	Moderate problem	Serious problem
a) The school building needs significant repair	○	○	○	○
b) Classrooms are overcrowded	○	○	○	○
c) Teachers have too many teaching hours	○	○	○	○
d) Teachers do not have adequate workspace for preparation, collaboration, or meeting with students	○	○	○	○
e) Teachers do not have adequate instructional materials and supplies	○	○	○	○

9

How much do you agree with the following statements about using computers in your teaching?

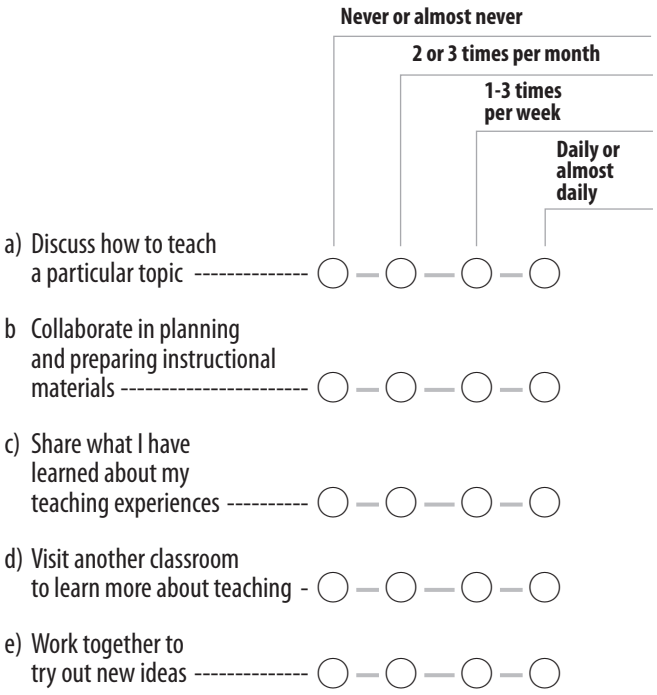
*Check **one** circle for each line.*



10

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

*Check **one** circle for each line.*



11

How much do you agree with the following statements?

*Check **one** circle for each line.*

	Agree a lot	Agree a little	Disagree a little	Disagree a lot
a) I am content with my profession as a teacher	○	○	○	○
b) I am satisfied with being a teacher at this school	○	○	○	○
c) I had more enthusiasm when I began teaching than I have now	○	○	○	○
d) I do important work as a teacher	○	○	○	○
e) I plan to continue as a teacher for as long as I can	○	○	○	○
f) I am frustrated as a teacher	○	○	○	○

12

A. How many students are in this class?

_____ students
Write in a number.

B. How many of the students in #12A are in fourth grade?

_____ fourth-grade students
Write in a number.

13

How many students experience difficulties understanding <u>spoken</u> English?

_____ fourth-grade students in this class
Write in a number.

14

A. Are you the students' general teacher for reading, mathematics and science?

*Check **one** circle only.*

Yes ○ → **(If Yes, go to #15)**

No ○

If No,

B. Which of the following subjects do you teach to this class?

*Check **one** circle for each line.*

	Yes	No
a) I teach the class reading/language arts	○	○
b) I teach the class mathematics	○	○
c) I teach the class science	○	○

15

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

*Check **one** circle for each line.*

	Every or almost every lesson	About half the lessons	Some lessons	Never
a) Summarize what students should have learned from the lesson	○	○	○	○
b) Relate the lesson to current events	○	○	○	○
c) Use questioning to elicit reasons and explanations	○	○	○	○
d) Encourage all students to improve their performance	○	○	○	○
e) Praise students for good effort	○	○	○	○
f) Bring interesting materials toc lass	○	○	○	○

16

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

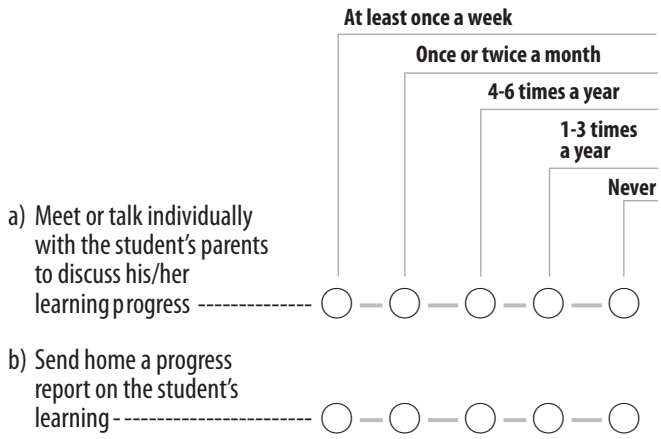
*Check **one** circle for each line.*

	Not applicable	Not at all	Some	A lot
a) Students lacking prerequisite knowledge or skills	○	○	○	○
b) Students suffering from lack of basic nutrition	○	○	○	○
c) Students suffering from not enough sleep	○	○	○	○
d) Students with special needs (e.g., physical disabilities, mental or emotional/ psychological impairment)	○	○	○	○
e) Disruptive students	○	○	○	○
f) Uninterested students	○	○	○	○

17

For the typical student in this class, how often do you do these things?

*Check **one** circle for each line.*



Questions 1-3 ask about mathematics instruction for the <u>fourth-grade</u> students in the TIMSS class.

1

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

_____hours and _____minutes per week

Write in the hours and minutes.

2

In teaching mathematics to this class, how confident do you feel to do the following?

*Check **one** circle for each line.*

	Very confident	Somewhat confident	Not confident
a) Answer students' questions about mathematics	○	○	○
b) Show students a variety of problem solving strategies	○	○	○
c) Provide challenging tasks for capable students	○	○	○
d) Adapt my teaching to engage students' interest	○	○	○
e) Help students appreciate the value of learning mathematics	○	○	○

3

In teaching mathematics to this class, how often do you usually ask students to do the following?

*Check **one** circle for each line.*

	Every or almost every lesson	About half the lessons	Some lessons	Never
a) Listen to me explain how to solve problems	○	○	○	○
b) Memorize rules, procedures, and facts	○	○	○	○
c) Work problems (individually or with peers) with my guidance	○	○	○	○
d) Work problems together in the whole class with direct guidance from me	○	○	○	○
e) Work problems (individually or with peers) while I am occupied by other tasks	○	○	○	○
f) Explain their answers	○	○	○	○
g) Relate what they are learning in mathematics to their daily life	○	○	○	○
h) Take a written test or quiz	○	○	○	○

Questions 4-6 ask about resources for teaching mathematics to the fourth-grade students in the TIMSS class.

4

When you teach mathematics to this class, how do you use the following resources?

*Check **one** circle for each line.*

	Basis for instruction	Supplement	Not used
a) Textbooks	◯	◯	◯
b) Workbooks or worksheets	◯	◯	◯
c) Concrete objects or materials that help students understand quantities or procedures	◯	◯	◯
d) Computer software for mathematics instruction (e.g., CD, DVD, Internet)	◯	◯	◯

5

Are the students in this class permitted to use calculators during mathematics lessons?

*Check **one** circle only.*

- Yes, with unrestricted use ◯
- Yes, with restricted use ◯
- No, calculators are not permitted ◯

6

A. Do the students in this class have computer(s) available to use during their mathematics lessons?

*Check **one** circle only.*

- Yes ◯
- No ◯ → **(If No, go to #7)**

If Yes,

B. Do any of the computer(s) have access to the Internet?

*Check **one** circle only.*

- Yes ◯
- No ◯

C. How often do you have the students do the following computer activities?

*Check **one** circle for each line.*

	Every or almost every day	Once or twice a week	Once or twice a month	Never or almost never
a) Look up ideas and information	◯	◯	◯	◯
b) Use instructional software to develop and practice skills and procedures	◯	◯	◯	◯
c) Use the school website for homework assignments	◯	◯	◯	◯

Questions 7-8 ask about the topics taught and the content covered in teaching mathematics to the fourth-grade students in the TIMSS class.

7

The following list includes the main topics addressed by the TIMSS mathematics test. Choose the response that best describes when the students in this class have been taught each topic. If a topic was taught half this year but not yet completed, please choose "Mostly taught this year." If a topic is not in the curriculum, please choose "Not yet taught or just introduced."

*Check **one** circle for each line.*

	Mostly taught before this year	Mostly taught this year	Not yet taught or just introduced
A. Number			
a) Concepts of whole numbers, including place value and ordering	○	○	○
b) Adding, subtracting, multiplying, and/or dividing with whole numbers	○	○	○
c) Concepts of fractions (fractions as parts of a whole or of a collection, or as a location on a number line; comparing and ordering fractions)	○	○	○
d) Adding and subtracting with fractions	○	○	○
e) Concepts of decimals, including place value and ordering	○	○	○
f) Adding and subtracting with decimals	○	○	○
g) Number sentences (finding the missing number, modeling simple situations with number sentences)	○	○	○
h) Number patterns (extending number patterns and finding missing terms)	○	○	○
B. Geometric Shapes and Measures			
a) Lines: measuring, estimating length of; parallel and perpendicular lines	○	○	○
b) Comparing and drawing angles	○	○	○
c) Using informal coordinate systems to locate points in a plane (e.g., in square B4)	○	○	○
d) Elementary properties of common geometric shapes	○	○	○
e) Reflections and rotations	○	○	○
f) Relationships between two-dimensional and three-dimensional shapes	○	○	○
g) Finding and estimating areas, perimeters and volumes	○	○	○
C. Data Display			
a) Reading data from tables, pictographs, bar graphs, or pie charts	○	○	○
b) Drawing conclusions from data displays	○	○	○
c) Displaying data using tables, pictographs, and bar graphs	○	○	○

8

By the end of this school year, approximately what percentage of teaching time will you have spent during this school year on each of the following mathematics content areas for the students in this class?

Write in the percentage for each.

a) Number (includes computation with whole numbers, fractions, decimals and number patterns) ---------- _____%

b) Geometric Shapes and Measures (includes two- and three-dimensional shapes, length, area and volume) ---------- _____%

c) Data Display (includes reading, making, and interpreting tables and graphs)---------- _____%

d) Other, please specify:

_____---------- _____%

Total = 100%

Question 9 asks about mathematics homework for the <u>fourth-grade</u> students in the TIMSS class.

9

A. How often do you usually assign mathematics homework to the students in this class?

*Check **one** circle only.*

I do not assign mathematics homework --- ◯ → **(Go to #10)**

Less than once a week --- ◯

1 or 2 times a week --- ◯

3 or 4 times a week --- ◯

Every day --- ◯

B. When you assign mathematics homework to the students in this class, about how many minutes do you usually assign? (Consider the time it would take an average student in your class.)

*Check **one** circle only.*

15 minutes or less --- ◯

16-30 minutes --- ◯

31-60 minutes --- ◯

more than 60 minutes --- ◯

C. How often do you do the following with the mathematics homework assignments for this class?

*Check **one** circle for each line.*

	Always or almost always	Sometimes	Never or almost Never
a) Correct assignments and give feedback to students -----	◯	◯	◯
b) Discuss the homework in class ----------	◯	◯	◯
c) Monitor whether or not the homework was completed ----	◯	◯	◯

Question 10 asks about mathematics assessment for the fourth-grade students in the TIMSS class.

10

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

*Check **one** circle for each line.*

	Major emphasis	Some emphasis	Little or no emphasis
a) Evaluation of students' ongoingw ork	○	○	○
b) Classroom tests (for example, teacher made or textbook tests)	○	○	○
c) State or district achievement tests	○	○	○

11

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

*Check **one** circle for each line.*

	Yes	No
a) Mathematics content	○	○
b) Mathematics pedagogy/instruction	○	○
c) Mathematics curriculum	○	○
d) Integrating information technology into mathematics	○	○
e) Mathematics assessment	○	○
f) Addressing individual students' needs	○	○

12

How well prepared do you feel you are to teach the following mathematics topics?
If a topic is not in the curriculum or you are not responsible for teaching this topic you may check "not applicable."

*Check **one** circle for each line.*

	Not applicable	Very well prepared	Somewhat prepared	Not well prepared
A. Number				
a) Concepts of whole numbers, including place value and ordering	○	○	○	○
b) Adding, subtracting, multiplying and/or dividing with whole numbers	○	○	○	○
c) Concepts of fractions (fractions as parts of a whole or of a collection, or as a location on a number line; comparing and ordering fractions)	○	○	○	○
d) Adding and subtracting with fractions	○	○	○	○
e) Concepts of decimals, including place value and ordering	○	○	○	○
f) Adding and subtracting with decimals	○	○	○	○
g) Number sentences (finding the missing number, modeling simple situations with number sentences)	○	○	○	○
h) Number patterns (extending number patterns and finding missing terms)	○	○	○	○
B. Geometric Shapes and Measures				
a) Lines: measuring, estimating length of; parallel and perpendicular lines	○	○	○	○
b) Comparing and drawing angles	○	○	○	○
c) Using informal coordinate systems to locate points in a plane (e.g., in square B4)	○	○	○	○
d) Elementary properties of common geometric shapes	○	○	○	○
e) Reflections and rotations	○	○	○	○
f) Relationships between two-dimensional and three-dimensional shapes	○	○	○	○
g) Finding and estimating areas, perimeters and volumes	○	○	○	○
C. Data Display				
a) Reading data from tables, pictographs, bar graphs, or pie charts	○	○	○	○
b) Drawing conclusions from data displays	○	○	○	○
c) Displaying data using tables, pictographs, and bar graphs	○	○	○	○

Questions 1-3 ask about science instruction for the <u>fourth-grade</u> students in the TIMSS class.

1

Is science taught mainly as a separate subject (i.e., not integrated with other subjects) to the students in this class?

*Check **one** circle only.*

Yes ◯

No ◯

A. If Yes,

How much time do you spend teaching science to the students in this class?

_____hours and _____minutes per week

Write in the hours and minutes.

B. If No,

Please estimate the time that you spend on science topics with students in this class.

_____hours and _____minutes per week

Write in the hours and minutes.

2

In teaching science to this class, how confident do you feel to do the following?

*Check **one** circle for each line.*

	Very confident	Somewhat confident	Not confident
a) Answer students' questions about science	◯	◯	◯
b) Explain science concepts or principles by doing science experiments	◯	◯	◯
c) Provide challenging tasks for capable students	◯	◯	◯
d) Adapt my teaching to engage students' interest	◯	◯	◯
e) Help students appreciate the value of learning science	◯	◯	◯

3

In teaching science to the students in this class, how often do you usually ask them to do the following?

*Check **one** circle for each line.*

	Every or almost every lesson	About half the lessons	Some lessons	Never
a) Observe natural phenomena such as the weather or a plant growing and describe what they see	○	○	○	○
b) Watch me demonstrate an experiment or investigation	○	○	○	○
c) Design or plan experiments or investigations	○	○	○	○
d) Conduct experiments or investigations	○	○	○	○
e) Read their textbooks or other resource materials	○	○	○	○
f) Have students memorize facts and principles	○	○	○	○
g) Give explanations about something they are studying	○	○	○	○
h) Relate what they are learning in science to their daily lives	○	○	○	○
i) Do field work outside the class	○	○	○	○
j) Take a written test or quiz	○	○	○	○

Questions 4-5 ask about resources for teaching science to the <u>fourth-grade</u> students in the TIMSS class.

4

When you teach science to this class, how do you use the following resources?

*Check **one** circle for each line.*

	Basis for instruction	Supplement	Not used
a) Textbooks	○	○	○
b) Workbooks or worksheets	○	○	○
c) Science equipment and materials	○	○	○
d) Computer software for science instruction (e.g., CD, DVD, Internet)	○	○	○
e) Reference materials (e.g., encyclopedia, dictionary)	○	○	○

5

A. Do the students in this class have computer(s) available to use when you are teaching science?

*Check **one** circle only.*

Yes --- ◯

No --- ◯ →

(If No, go to #6)

If Yes,

B. Do any of the computer(s) have access to the Internet?

*Check **one** circle only.*

Yes --- ◯

No --- ◯

C. How often do you have the students do the following computer activities?

*Check **one** circle for each line.*

	Every or almost every day	Once or twice a week	Once or twice a month	Never or almost never
a) Look up ideas and information	◯	◯	◯	◯
b) Use instructional software to develop and practice skills and procedures	◯	◯	◯	◯
c) Use the school website for homeworkas signments	◯	◯	◯	◯

Questions 6-7 ask about the topics taught and the content covered in teaching science to the fourth-grade students in the TIMSS class.

6

The following list includes the main topics addressed by the TIMSS science test. Choose the response that best describes when the students in this class have been taught each topic. If a topic was taught half this year but not yet completed, please choose "Mostly taught this year." If a topic is not in the curriculum, please choose "Not yet taught or just introduced."

*Check **one** circle for each line.*

	Mostly taught before this year	Mostly taught this year	Not yet taught or just introduced
A. Life Science			
a) Major body structures and their functions in humans and other organisms (plants and animals)	○	○	○
b) Life cycles and reproduction in plants and animals	○	○	○
c) Physical features, behavior, and survival of organisms living in different environments	○	○	○
d) Relationships in a given community (e.g., simple food chains, predator-prey relationships)	○	○	○
e) Changes in environments (effects of human activity, pollution and its prevention)	○	○	○
f) Human health (e.g., transmission/prevention of communicable diseases, signs of health/illness, diet, exercise)	○	○	○
B. Physical Science			
a) States of matter (solids, liquids, gases) and differences in their physical properties (shape, volume), including changes in state of matter by heating and cooling	○	○	○
b) Classification of objects/materials based on physical properties (e.g., weight/mass, volume, magnetic attraction)	○	○	○
c) Forming and separating mixtures	○	○	○
d) Familiar changes in materials (e.g., decaying, burning, rusting, cooking)	○	○	○
e) Common energy sources/forms and their practical uses (e.g., the Sun, electricity, water, wind)	○	○	○
f) Light (e.g., sources, behavior)	○	○	○
g) Electrical circuits and properties of magnets	○	○	○
h) Forces that cause objects to move (e.g., gravity, push/pull forces)	○	○	○
C. Earth Science			
a) Water on Earth (location, types, and movement) and air (composition, proof of its existence, uses)	○	○	○
b) Common features of Earth's landscape (e.g., mountains, plains, rivers, deserts) and relationship to human use (e.g., farming, irrigation, land development)	○	○	○
c) Weather conditions from day to day or over the seasons	○	○	○
d) Fossils of animals and plants (age, location, formation)	○	○	○
e) Earth's solar system (planets, Sun, moon)	○	○	○
f) Day, night, and shadows due to Earth's rotation and its relationship to the Sun	○	○	○

7

By the end of this school year, approximately what percentage of teaching time will you have spent during this school year on each of the following science content areas for the students in this class?

Write in the percentage for each.

a) Life science (includes environmental issues) ---------- _____%

b) Physical science (includes topics in physics and chemistry) ---------- _____%

c) Earth science (includes Earth and the solar system) ---------- _____%

d) Other, please specify:

_____ ---------- _____%

Total = 100%

Question 8 asks about science homework for the <u>fourth-grade</u> students in the TIMSS class.

8

A. How often do you usually assign science homework to the students in this class?

*Check **one** circle only.*

- I do not assign science homework ◯ → **(Go to #9)**
- Less than once a week ◯
- 1 or 2 times a week ◯
- 3 or 4 times a week ◯
- Every day ◯

B. When you assign science homework to the students in this class, about how many minutes do you usually assign? (Consider the time it would take an average student in your class.)

*Check **one** circle only.*

- 15 minutes or less ◯
- 16-30 minutes ◯
- 31-60 minutes ◯
- more than 60 minutes ◯

C. How often do you do the following with the science homework assignments for this class?

*Check **one** circle for each line.*

	Always or almost always	Sometimes	Never or almost Never
a) Correct assignments and give feedback to students	◯	◯	◯
b) Discuss the homework in class	◯	◯	◯
c) Monitor whether or not the homework was completed	◯	◯	◯

Science Assessment

Question 9 asks about science assessment for the <u>fourth-grade</u> students in the TIMSS class.

9

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

*Check **one** circle for each line.*

	Major emphasis	Some emphasis	Little or no emphasis
a) Evaluation of students' ongoing work	○	○	○
b) Classroom tests (for example, teacher made or textbook tests)	○	○	○
c) National or regional achievement tests	○	○	○

Preparation to Teach Science

10

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

*Check **one** circle for each line.*

	Yes	No
a) Science content	○	○
b) Science pedagogy/instruction	○	○
c) Science curriculum	○	○
d) Integrating information technology into science	○	○
e) Science assessment	○	○
f) Addressing individual students' needs	○	○

11

How well prepared do you feel you are to teach the following science topics?
If a topic is not in the curriculum or you are not responsible for teaching this topic you may check "not applicable."

*Check **one** circle for each line.*

	Not applicable	Very well prepared	Somewhat prepared	Not well prepared
A. Life Science				
a) Major body structures and their functions in humans and other organisms (plants and animals)	○	○	○	○
b) Life cycles and reproduction in plants and animals	○	○	○	○
c) Physical features, behavior, and survival of organisms living in different environments	○	○	○	○
d) Relationships in a given community (e.g., simple food chains, predator-prey relationships)	○	○	○	○
e) Changes in environments (effects of human activity, pollution and its prevention)	○	○	○	○
f) Human health (e.g., transmission/prevention of communicable diseases, signs of health/illness, diet, exercise)	○	○	○	○
B. Physical Science				
a) States of matter (solids, liquids, gases) and differences in their physical properties (shape, volume), including changes in state of matter by heating and cooling	○	○	○	○
b) Classification of objects/materials based on physical properties (e.g., weight/mass, volume, magnetic attraction)	○	○	○	○
c) Forming and separating mixtures	○	○	○	○
d) Familiar changes in materials (e.g., decaying, burning, rusting, cooking)	○	○	○	○
e) Common energy sources/forms and their practical uses (e.g., the Sun, electricity, water, wind)	○	○	○	○
f) Light (e.g., sources, behavior)	○	○	○	○
g) Electrical circuits and properties of magnets	○	○	○	○
h) Forces that cause objects to move (e.g., gravity, push/pull forces)	○	○	○	○
C. Earth Science				
a) Water on Earth (location, types, and movement) and air (composition, proof of its existence, uses)	○	○	○	○
b) Common features of Earth's landscape (e.g., mountains, plains, rivers, deserts) and relationship to human use (e.g., farming, irrigation, land development)	○	○	○	○
c) Weather conditions from day to day or over the seasons	○	○	○	○
d) Fossils of animals and plants (age, location, formation)	○	○	○	○
e) Earth's solar system (planets, Sun, moon)	○	○	○	○
f) Day, night, and shadows due to Earth's rotation and its relationship to the Sun	○	○	○	○

Thank You

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

TIMSS & PIRLS International Study Center
Lynch School of Education, Boston College
timssandpirls.bc.edu

BOSTON COLLEGE

DRAFT

TIMSS 2011

Field Test Version

Teacher Questionnaire

Grade 4