

DRAFT

Identification Label

Teacher Name:

Class Name:

Teacher ID:

Teacher Link #:

OMB # to go here

TIMSS 2011

Field Test Version

Teacher Questionnaire Science

Grade 8

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 eighth-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 secondary 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

About You

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

During your college or university education, what was your major or main area(s) of study?

Check **one** circle for each line.

- | | Yes | No |
|----------------------------------|-----------------------|-----------------------|
| b) Physics ----- | <input type="radio"/> | <input type="radio"/> |
| c) Chemistry ----- | <input type="radio"/> | <input type="radio"/> |
| d) Earth Science ----- | <input type="radio"/> | <input type="radio"/> |
| e) Education - Science ----- | <input type="radio"/> | <input type="radio"/> |
| f) Mathematics ----- | <input type="radio"/> | <input type="radio"/> |
| g) Education - Mathematics ----- | <input type="radio"/> | <input type="radio"/> |
| h) Education - Other ----- | <input type="radio"/> | <input type="radio"/> |
| i) Other ----- | <input type="radio"/> | <input type="radio"/> |

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 -----	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b) Teachers' understanding of the school's curricular goals -----	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c) Teachers' degree of success in implementing the school's curriculum -----	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
d) Teachers' expectations for student achievement -----	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
e) Parental support for student achievement -----	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
f) Parental involvement in school activities -----	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
g) Students' regard for school property -----	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
h) Students' desire to do well in school -----	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

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 -----	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b) I feel safe at this school -----	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c) This school's security policies and practices are sufficient -----	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
d) The students behave in an orderly manner -----	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
e) The students are respectful of the teachers -----	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

8

In your current school, how severe is each problem?

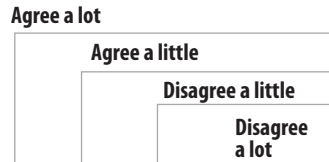
Check **one** circle for each line.

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

9

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

Check **one** circle for each line.

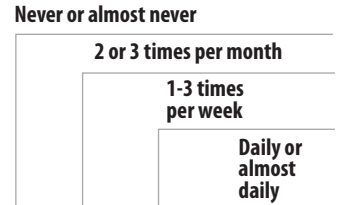


- a) I feel comfortable using computers in my teaching ---- ○ -- ○ -- ○ -- ○
- b) When I have technical problems, I have ready access to computer support staff in my school ----- ○ -- ○ -- ○ -- ○
- c) I receive adequate support for integrating computers in my teaching activities ----- ○ -- ○ -- ○ -- ○

10

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

Check **one** circle for each line.

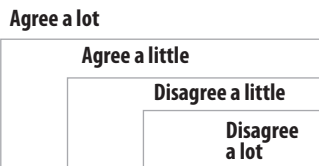


- a) Discuss how to teach a particular topic ----- ○ -- ○ -- ○ -- ○
- b) Collaborate in planning and preparing instructional materials ----- ○ -- ○ -- ○ -- ○
- c) Share what I have learned about my teaching experiences ----- ○ -- ○ -- ○ -- ○
- d) Visit another classroom to learn more about teaching - ○ -- ○ -- ○ -- ○
- e) Work together to try out new ideas ----- ○ -- ○ -- ○ -- ○

11

How much do you agree with the following statements?

Check **one** circle for each line.



- 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

How many students are in this class?

_____ students
Write in a number.

13

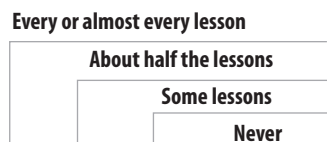
How many students experience difficulties understanding spoken English?

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

14

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

Check **one** circle for each line.

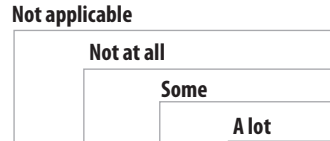


- a) Summarize what students should have learned from the lesson ----- - - -
- b) Relate the lesson to current events ----- - - -
- c) Use questioning to elicit reasons and explanations ---- - - -
- d) Encourage all students to improve their performance --- - - -
- e) Praise students for good effort ----- - - -
- f) Bring interesting materials to class ----- - - -

15

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

Check **one** circle for each line.

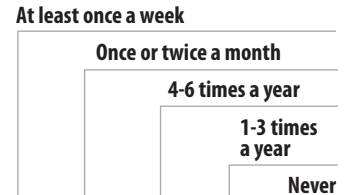


- a) Students lacking prerequisite knowledge or skills ----- - - -
- b) Students suffering from lack of basic nutrition ----- - - -
- c) Students suffering from not enough sleep ----- - - -
- d) Students with special needs (e.g., physical disabilities, mental or emotional/psychological impairment) --- - - -
- e) Disruptives tudents ----- - - -
- f) Uninteresteds tudents ----- - - -

16

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

Check **one** circle for each line.



- a) Meet or talk individually with the student's parents to discuss his/her learning progress ----- - - - -
- b) Send home a progress report on the student's learning ----- - - - -

Questions 17-19 ask about science instruction for the **eighth-grade** students in the class with the TIMSS students.

17

In a typical week, 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.

18

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 ----- - -

19

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 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) Use scientific formulas and laws to solve routine problems ----- - - -
- h) Give explanations about something they are studying ----- - - -
- i) Relate what they are learning in science to their daily lives ----- - - -
- j) Do field work outside of class - - - -
- k) Take a written test or quiz ----- - - -

Questions 20-21 ask about resources for teaching science to the eighth-grade students in the class with the TIMSS students.

20

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

Check **one** circle for each line.

	Basis for instruction	Supplement	Not used
a) Textbooks -----	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b) Workbooks or worksheets -----	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c) Science equipment and materials -----	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
d) Computer software for science instruction (e.g., CD, DVD, Internet) -----	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
e) Reference materials (e.g., encyclopedia, dictionary) -----	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

21

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

Check **one** circle only.

Yes ---

No ---

(If No, go to #22)

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 -----	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b) Use instructional software to develop and practice skills and procedures -----	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c) Do scientific procedures or experiments -----	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
d) Study natural phenomena through simulations -----	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
e) Process and analyze data -----	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
f) Use the school website for homework assignments -----	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Science Topics Taught

Questions 22-23 ask about the topics taught and the content covered in teaching science to the eighth-grade students in the class with the TIMSS students.

22

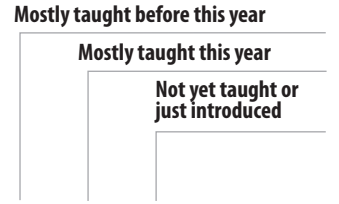
The following list includes the main topics addressed by the TIMSS science test. Choose the response that best describes when the students in this class have been taught each topic. If a topic was taught half this year but not yet completed, please choose "Mostly taught this year." If a topic is not 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. Biology			
a) Major organs and organ systems in humans and other organisms (structure/function, life processes that maintain stable bodily conditions) -----	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b) Cells and their functions, including respiration and photosynthesis as cellular processes -----	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c) Reproduction (sexual and asexual) and heredity (passing on of traits, inherited versus acquired/learned characteristics) -----	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
d) Role of variation and adaptation in survival/extinction of species in a changing environment -----	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
e) Interdependence of populations of organisms in an ecosystem (e.g., energy flow, food webs, competition, predation) and the impact of changes in the physical environment on populations (e.g., climate, water supply) -----	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
f) Reasons for increase in world's human population (e.g., advances in medicine, sanitation), and the effects of population growth on the environment -----	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
g) Human health (causes of infectious diseases, methods of infection, prevention, immunity) and the importance of diet and exercise in maintaining health -----	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
B. Chemistry			
a) Classification, composition, and particulate structure of matter (elements, compounds, mixtures, molecules, atoms, protons, neutrons, electrons) -----	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b) Solutions (solvent, solute, concentration/dilution, effect of temperature on solubility) -----	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c) Properties and uses of common acids and bases -----	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
d) Chemical change (transformation of reactants, evidence of chemical change, conservation of matter, common oxidation reactions – combustion, rusting, tarnishing) -----	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

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.



C. Physics

- a) Physical states and changes in matter (explanations of properties in terms of movement and distance between particles; phase change, thermal expansion, and changes in volume and/or pressure) ----- — —
- b) Energy forms, transformations, heat, and temperature ----- — —
- c) Basic properties/behaviors of light (reflection, refraction, light and color, simple ray diagrams) and sound (transmission through media, loudness, pitch, amplitude, frequency, relative speed of light and sound) ----- — —
- d) Electric circuits (flow of current; types of circuits - parallel/series; current/voltage relationship) and properties and uses of permanent magnets and electromagnets ----- — —
- f) Forces and motion (types of forces, basic description of motion, effects of density and pressure) ----- — —

D. Earth Science

- a) Earth’s structure and physical features (Earth’s crust, mantle and core; composition and relative distribution of water, and composition of air) ----- — —
- b) Earth’s processes, cycles and history (rock cycle; water cycle; weather patterns; major geological events; formation of fossils and fossil fuels) ----- — —
- c) Earth’s resources, their use and conservation (e.g., renewable/nonrenewable resources, human use of land/soil, water resources) ----- — —
- d) Earth in the solar system and the universe (phenomena on Earth - day/night, tides, phases of moon, eclipses, seasons; physical features of Earth compared to other bodies; the Sun as a star) ----- — —

23

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) Biology (e.g., structure/function; life processes, reproduction/heredity, natural selection; ecosystems, human health) ----- %
- b) Chemistry (e.g., classification, composition and properties of matter; chemical change) ----- %
- c) Physics (e.g., physical states/ changes in matter; energy; light; sound; electricity and magnetism; forces and motion) ----- %
- d) Earth science (e.g., Earth's structure, processes, and resources; the solar system and universe) ----- %
- e) Other, please specify:
_____ %

Total = 100%

Question 24 asks about science homework for the eighth-grade students in the class with the TIMSS students.

24

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 ---
- Less than once a week ---
- 1 or 2 times a week ---
- 3 or 4 times a week ---
- Every day ---

(Go to #25)

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 ---
- 61-90 minutes ---
- More than 90 minutes ---

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

Check **one** circle for each line.



- a) Correct assignments and give feedback to students ----- — —
- b) Have students correct their own homework ----- — —
- c) Discuss the homework in class ----- — —
- d) Monitor whether or not the homework was completed ----- — —
- e) Use the homework to contribute towards students' grades or marks ----- — —

Questions 25-27 ask about science assessment for the eighth-grade students in the class with the TIMSS students.

25

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) State or district achievement tests ----- ○ — ○ — ○

26

How often do you give a science test or examination to this class? (Do not include quizzes.)

Check **one** circle only.

- About once a week --- ○
- About every two weeks --- ○
- About once a month --- ○
- A few times a year --- ○
- Never --- ○

27

How often do you include the following types of questions in your science tests or examinations? (Do not include quizzes.)

Check **one** circle for each line.

- Always or almost always
Sometimes
Never or almost never
- a) Questions based on knowing facts and concepts --- ○ — ○ — ○
 - b) Questions based on the application of knowledge and understanding ----- ○ — ○ — ○
 - c) Questions involving developing hypotheses and designing scientific investigations ----- ○ — ○ — ○
 - d) Questions requiring explanations or justifications ----- ○ — ○ — ○

28

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 -----	<input type="radio"/>	<input type="radio"/>
b) Science pedagogy/instruction -----	<input type="radio"/>	<input type="radio"/>
c) Science curriculum -----	<input type="radio"/>	<input type="radio"/>
d) Integrating information technology into science -----	<input type="radio"/>	<input type="radio"/>
e) Improving students' critical thinking or problem solving skills -----	<input type="radio"/>	<input type="radio"/>
f) Science assessment -----	<input type="radio"/>	<input type="radio"/>
g) Addressing individual students' needs -----	<input type="radio"/>	<input type="radio"/>

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."

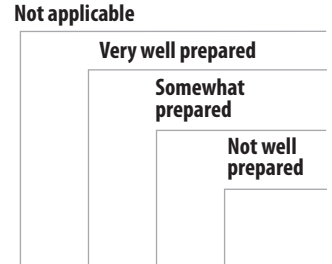
Check **one** circle for each line.

	Not applicable	Very well prepared	Somewhat prepared	Not well prepared
A. Biology				
a) Major organs and organ systems in humans and other organisms (structure/function, life processes that maintain stable bodily conditions) -----	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b) Cells and their functions, including respiration and photosynthesis as cellular processes -----	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c) Reproduction (sexual and asexual) and heredity (passing on of traits, inherited versus acquired/learned characteristics) -----	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
d) Role of variation and adaptation in survival/extinction of species in a changing environment -----	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
e) Interdependence of populations of organisms in an ecosystem (e.g., energy flow, food webs, competition, predation) and the impact of changes in the physical environment on populations (e.g., climate, water supply) -----	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
f) Reasons for increase in world's human population (e.g., advances in medicine, sanitation), and the effects of population growth on the environment -----	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
g) Human health (causes of infectious diseases, methods of infection, prevention, immunity) and the importance of diet and exercise in maintaining health -----	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
B. Chemistry				
a) Classification, composition, and particulate structure of matter (elements, compounds, mixtures, molecules, atoms, protons, neutrons, electrons) -----	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b) Solutions (solvent, solute, concentration/dilution, effect of temperature on solubility) -----	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c) Properties and uses of common acids and bases -----	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
d) Chemical change (transformation of reactants, evidence of chemical change, conservation of matter, common oxidation reactions – combustion, rusting, tarnishing) -----	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

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.



C. Physics

- a) Physical states and changes in matter (explanations of properties in terms of movement and distance between particles; phase change, thermal expansion, and changes in volume and/or pressure) ----- ○ — ○ — ○ — ○
- b) Energy forms, transformations, heat, and temperature ----- ○ — ○ — ○ — ○
- c) Basic properties/behaviors of light (reflection, refraction, light and color, simple ray diagrams) and sound (transmission through media, loudness, pitch, amplitude, frequency, relative speed of light and sound) ----- ○ — ○ — ○ — ○
- d) Electric circuits (flow of current; types of circuits - parallel/series; current/voltage relationship) and properties and uses of permanent magnets and electromagnets ----- ○ — ○ — ○ — ○
- e) Forces and motion (types of forces, basic description of motion, effects of density, and pressure) ----- ○ — ○ — ○ — ○

D. Earth Science

- a) Earth's structure and physical features (Earth's crust, mantle and core; composition and relative distribution of water, and composition of air) ----- ○ — ○ — ○ — ○
- b) Earth's processes, cycles and history (rock cycle; water cycle; weather patterns; major geological events; formation of fossils and fossil fuels) ----- ○ — ○ — ○ — ○
- c) Earth's resources, their use and conservation (e.g., renewable/nonrenewable resources, human use of land/soil, water resources) ----- ○ — ○ — ○ — ○
- d) Earth in the solar system and the universe (phenomena on Earth - day/night, tides, phases of moon, eclipses, seasons; physical features of Earth compared to other bodies; the Sun as a star) ----- ○ — ○ — ○ — ○

[The following questions are national options that will be added to the questionnaire. They will be formatted and appropriately placed among the existing items.]

1. Science course currently being taught

Which best describes the science course you are teaching to the class with the TIMSS students?

Fill in one circle only.

General science (several content areas of science taught separately) -----

Integrated science (several content areas of science combined and taught together throughout the year) --

Life science (e.g., biology, ecosystems, human health)--

Physical science (e.g., physics or chemistry) -----

Earth science (e.g., geology, earth and the solar system, fossils) -----

Thank You

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

TIMSS & PIRLS International Study Center

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**BOSTON
COLLEGE**

DRAFT

TIMSS 2011

Field Test Version

**Teacher
Questionnaire**
Science

Grade 8



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