

Identification Label

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 <Upper secondary education—ISCED Level 3> ---

<Upper secondary education—ISCED Level 3> --- 

(If you have not completed <post-secondary or tertiary education>, go to #6)

<Post-secondary, non-tertiary education—ISCED Level 4> ---

<Short-cycle tertiary education—ISCED Level 5> ---

<Bachelor's or equivalent level—ISCED Level 6> ---

<Master's or equivalent level—ISCED Level 7> ---

<Doctor or equivalent level—ISCED Level 8> ---

5

During your <post-secondary> education, what was your **major or main area(s)** of study?

Check **one** circle for each line.

- | | Yes | No |
|--------------------------------|-----------------------|-----------------------|
| a) Mathematics | <input type="radio"/> | <input type="radio"/> |
| b) Biology | <input type="radio"/> | <input type="radio"/> |
| c) Physics | <input type="radio"/> | <input type="radio"/> |
| d) Chemistry | <input type="radio"/> | <input type="radio"/> |
| e) <Earth Science> | <input type="radio"/> | <input type="radio"/> |
| f) Education—Mathematics | <input type="radio"/> | <input type="radio"/> |
| g) Education—Science | <input type="radio"/> | <input type="radio"/> |
| h) Education—General | <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' understanding of the school's curricular goals --- A --- A --- A --- A --- A

b) Teachers' degree of success in implementing the school's curriculum ----- A --- A --- A --- A --- A

c) Teachers' expectations for student achievement ----- A --- A --- A --- A --- A

d) Teachers working together to improve student achievement ----- A

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 ----- A — A — A — A
- b) I feel safe at this school ----- A — A — A — A
- c) This school's security policies and practices are sufficient ---- A — A — A — A
- d) The students behave in an orderly manner ----- A — A — A — A
- e) The students are respectful of the teachers ----- A — A — A — A
- f) The students respect school property ----- A — A — A — A
- g) This school has clear rules about student conduct ----- A — A — A — A
- h) This school's rules are enforced in a fair and consistent manner ----- A — A — A — A

8

In your current school, how severe is each problem?

Check **one**

9 _____

11 _____

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) There are too many students in the classes ----- A — A — A — A
- b) I have too much material to cover in class ----- A — A — A — A
- c) I have too many teaching hours ----- A — A — A — A
- d) I need more time to prepare for class ----- A — A — A — A
- e) I need more time to assist individual students ----- A — A

12 _____

How many students are in this class?

_____ students
Write in the number.

13 _____

How many <eighth grade> students experience difficulties understanding spoken <language of test>?

_____ students in this class
Write in the number.

14 _____

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

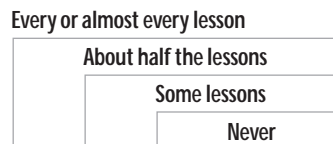
- a) Relate the lesson to students' daily lives ----- A — A — A — A
- b) Ask students to explain their answers ----- A — A — A — A
- c) Ask students to complete challenging exercises that require them to go beyond the instruction ----- A — A — A — A
- d) Encourage classroom discussions among students ----- A — A — A — A
- e) Link new content to students' prior knowledge ---- A — A — A — A
- f) Ask students to decide their own problem solving procedures ----- A — A — A — A
- g) Encourage students to express their ideas in class ---- A — A — A — A



18

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

Check **one** circle for each line.



- a) Listen to me explain new science content ----- A — A — A — A
- b) Observe natural phenomena and describe what they see --- A — A — A — A
- c) Watch me demonstrate an experiment or investigation ----- A — A — A — A
- d) Design or plan experiments or investigations ----- A — A — A — A
- e) Conduct experiments or investigations ----- A — A — A — A
- f) Present data from experiments or investigations ----- A — A — A — A
- g) Interpret data from experiments or investigations ----- A — A — A — A
- h) Use evidence from experiments or investigations to support conclusions ----- A — A — A — A
- i) Read their textbooks or other resource materials ----- A — A — A — A
- j) Have students memorize facts and principles ----- A — A — A — A
- k) Use scientific formulas and laws to solve routine problems ----- A — A — A — A
- l) Do field work outside of class-- A — A — A — A
- m) Take a written test or quiz ----- A — A — A — A
- n) Work in mixed ability groups -- A — A — A — A
- o) Work in same ability groups --- A — A — A — A

19

A. Do the students in this class have computers (including tablets) available to use during their science lessons?

Check **one** circle only.

- Yes --- A
 - No --- A _____
- (If No, go to #20)

If Yes,

B. What access do the students have to computers?

Check **one** circle for each line.

- | | Yes | No |
|--|-----|----|
| a) Each student has a computer ----- | A | A |
| b) The class has computers that students can share ----- | A | A |
| c) The school has computers that the class can use sometimes ----- | A | A |

C. How often do you have the students do the following activities on computers during science lessons?

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) Practice skills and procedures ----- | A | A | A | A |
| b) Look up ideas and information ----- | A | A | A | A |
| c) Do scientific procedures or experiments ----- | A | A | A | A |
| d) Study natural phenomena | | | | |

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 in the curriculum before the <eighth grade>, please choose “Mostly taught before this year.” 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.



A. Biology

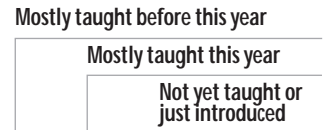
- a) Differences among major taxonomic groups of organisms (plants, animals, fungi, mammals, birds, reptiles, fish, amphibians) ----- A — A — A
- b) Major organs and organ systems in humans and other organisms (structure/function, life processes that maintain stable bodily conditions) ----- A — A — A
- c) Cells, their structure and functions, including respiration and photosynthesis as cellular processes ----- A — A — A
- d) Life cycles, sexual reproduction, and heredity (passing on of traits, inherited versus acquired/learned characteristics) ----- A — A — A
- e) Role of variation and adaptation in survival/extinction of species in a changing environment (including fossil evidence for changes in life on Earth over time) ----- A — A — A
- f) Interdependence of populations of organisms in an ecosystem (e.g., energy flow, food webs, competition, predation) and factors affecting population size in an ecosystem ----- A — A — A
- g) Human health (causes of infectious diseases, methods of infection, prevention, immunity) and the importance of diet and exercise in maintaining health ----- A — A — A

B. Chemistry

- a) Classification, composition, and particulate structure of matter (elements, compounds, mixtures, molecules, atoms, protons, neutrons, electrons) ----- A — A — A
- b) Physical and chemical properties of matter ----- A — A — A
- c) Mixtures and solutions (solvent, solute, concentration/dilution, effect of temperature on solubility) ----- A — A — A
- d) Properties and uses of common acids and bases ----- A — A — A
- e) Chemical change (transformation of reactants, evidence of chemical change, conservation of matter, common oxidation reactions – combustion, rusting, tarnishing) ----- A — A — A
- f) The role of electrons in chemical bonds ----- A — A — A

Choose the response that best describes when the students in this class have been taught each topic. If a topic was in the curriculum before the <eighth grade>, please choose "Mostly taught before this year." 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) ----- A — A — A
- b) Energy forms, transformations, heat, and temperature ----- A — A — A
- c) Basic properties/behaviors of light (reflection, refraction, light and color, simple ray diagrams) and sound (transmission through media, loudness, pitch, amplitude, frequency) ----- A — A — A
- d) Electric circuits (flow of current; types of circuits - parallel/series) and properties and uses of permanent magnets and electromagnets ----- A — A — A
- e) Forces and motion (types of forces, basic description of motion, effects of density and pressure) ----- A — A — A

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) ----- A — A — A
- b) Earth's processes, cycles, and history (rock cycle; water cycle; weather versus climate; major geological events; formation of fossils and fossil fuels) ----- A — A — A
- c) Earth's resources, their use and conservation (e.g., renewable/nonrenewable resources, human use of land/soil, water resources) ----- A — A — A
- 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) ----- A — A — A

21

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 --- A

(Go to #22)

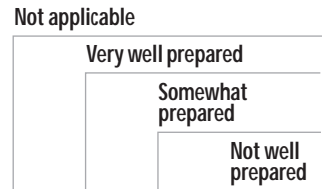
Less than once a week --- A

25 (continued)

How well prepared do you feel you are to teach the following science topics?

If a topic is not in the <eighth grade> curriculum or you are not responsible for teaching this topic, please choose "Not applicable."

Check **one** circle for each line.



C. Physics

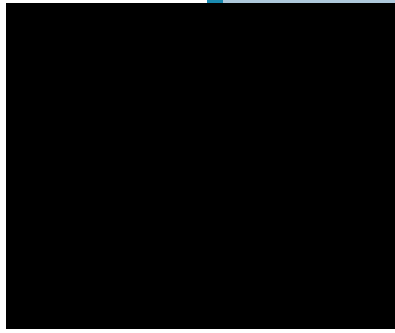
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- d) Earth in the solar system and the universe (phenomena on Earth - day/night, tides, phases of moon, eclipses, seasons; physical features of Earth compared to other bodies) ----- A — A — A — A

Thank You

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



<Grade 8>