

STAAR CONNECTION™

Diagnostic Series™

Science

6

teacher



KAMICO®

Instructional Media, Inc.

STAAR CONNECTION™

Science
6
teacher

Diagnostic Series™

XXVI/i/MMXV
Version 1



KAMICO®
Instructional Media, Inc.

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KAMICO® Instructional Media, Inc.
STAAR CONNECTION™
Diagnostic Series™
Grade 6 Science
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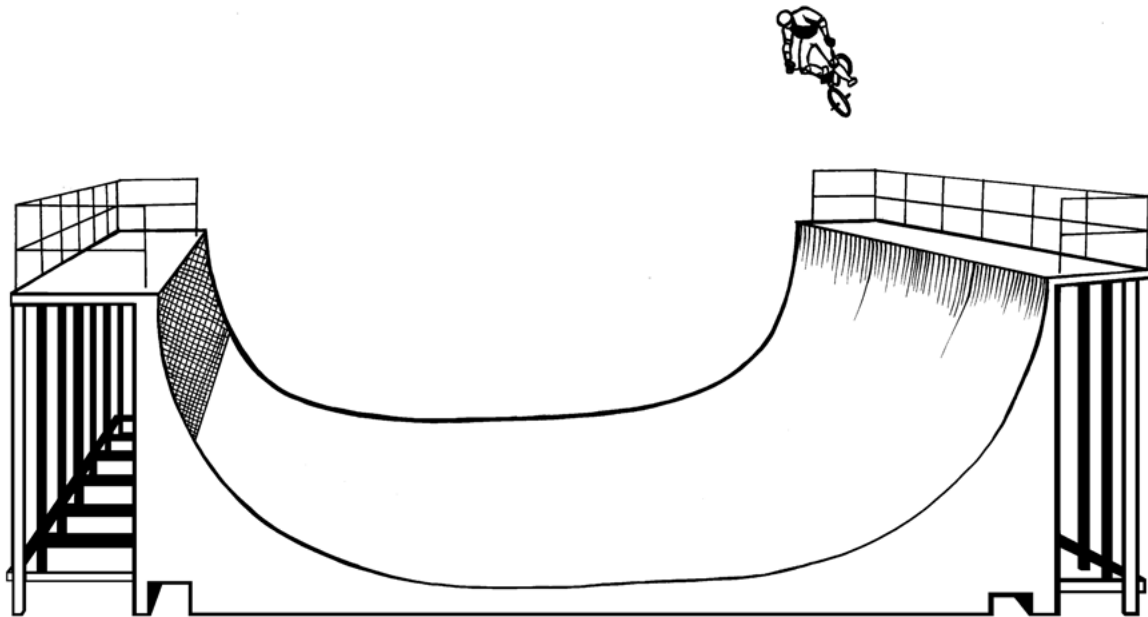
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- 1** Students in a sixth-grade science class construct a simple model of an erupting volcano. They build a small model of a volcano, place one tablespoon of baking soda down a hole representing the volcano's vent, and pour vinegar out of a test tube down the vent. The vinegar makes the baking soda fizz and give off gas, which blows out of the volcano.

Which student is working in a safe manner?

- A** the student who washes her gloves with soap and water before touching her eyes
 - B** the student who puts on a pair of safety goggles after pouring the vinegar down the volcano
 - C** the student who eats a snack during the construction of the model
 - D** the student who avoids breathing in the gas blowing out of the volcano
- 2** Elements are organized, based on their properties, on a chart called the Modern Periodic Table. Which of the following statements is true about elements?
- F** Elements can be made of two or more atoms, as long as the atoms are not of the same type.
 - G** Elements are represented by chemical symbols.
 - H** No substance can be made of more than one element.
 - J** Two different substances can be combined together to create a new element.

- 3** A mountain biker practices tricks on a halfpipe.



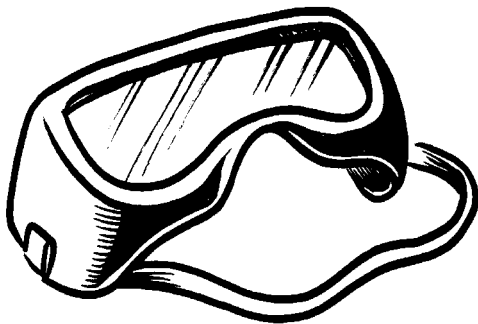
The cyclist begins at the left side of the halfpipe, rides down the left ramp and across the bottom, up the right side of the halfpipe, and then launches into the air with a twist. At which position does the cyclist have the greatest amount of kinetic energy? Why?

- A** at the position in the air because he is at the highest point above the ground
- B** at the bottom crossing the halfpipe because he is moving at the fastest speed
- C** at the top of the left side of the halfpipe at the beginning of his trick because he is storing the greatest amount of energy
- D** down the left side of the halfpipe because gravity has the greatest pull force on him as he moves down the ramp
- 4** Corina is looking for materials to use to make a model of Earth's layers. She knows that Earth is not like a solid ball and that some of the layers are not solid. If Corina is going to use softer material to represent layers that are not solid, one of the softer layers of her model will represent —
- F** the inner core.
- G** the lithosphere.
- H** the mantle.
- J** the outer core.

5 A cell is the basic structure of life for all organisms. The minimum number of cells required in the most simple of all organisms is —

- A** 36.
- B** 144.
- C** 1.
- D** 2.

6 Tamara is trying to decide whether she needs to use safety goggles or safety glasses for an experiment.



Safety Goggles



Safety Glasses

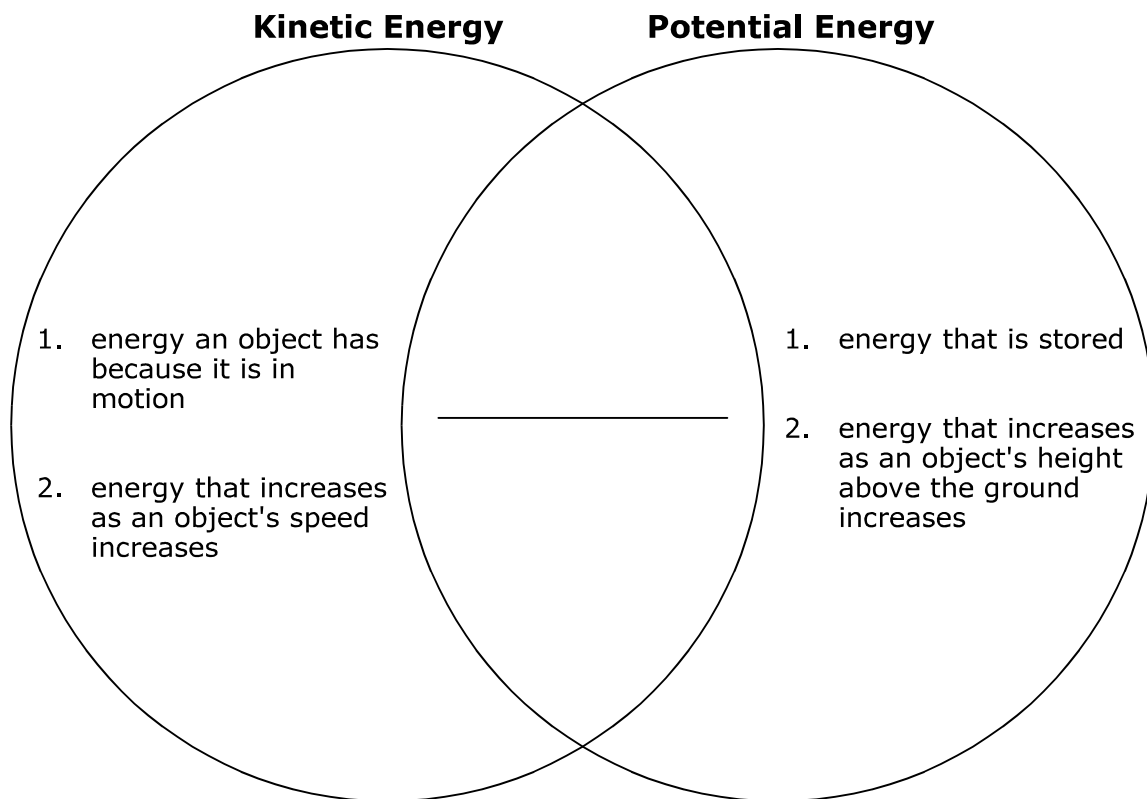
For which experiment should Tamara wear safety goggles instead of safety glasses?

- F** counting the number of spots on a ladybug
- G** watering seeds planted in a pot of soil
- H** crushing a rock using a hammer
- J** adding vinegar to baking soda

7 Scientists represent elements using chemical symbols. What do the chemical symbols contain?

- A** numbers only
- B** numbers and letters
- C** letters only
- D** letters and mathematical symbols

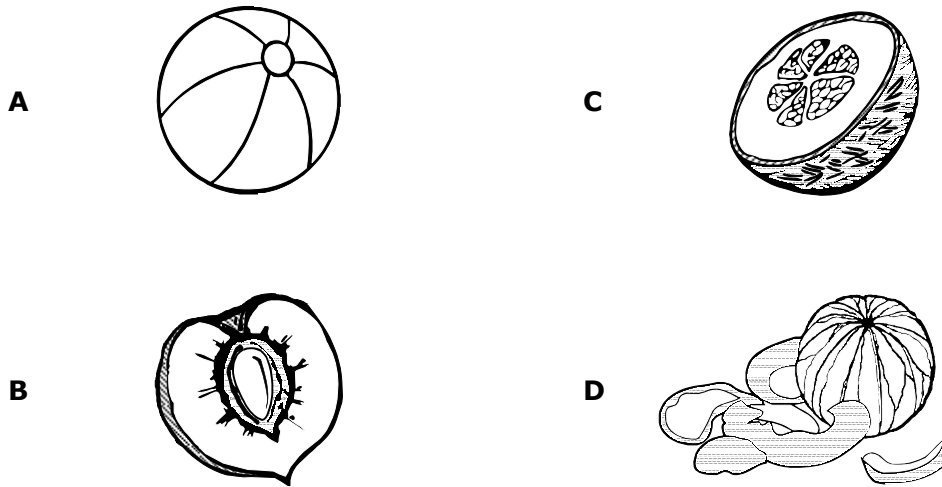
8 Study the Venn Diagram comparing and contrasting kinetic energy and potential energy.



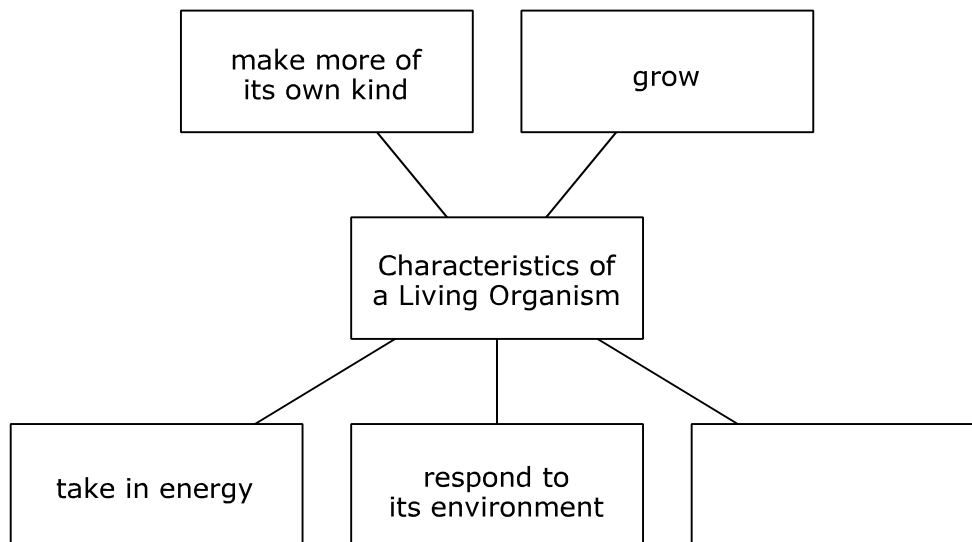
Which of the following belongs in the blank space?

- F** energy that is converted into kinetic energy
- G** energy can be destroyed by another form of energy
- H** energy that cannot exist outside of Earth's atmosphere
- J** energy that has the ability to cause change

- 9 Patty is going to build a model that illustrates the structural layers of Earth. She wants to select an object to use as her model. Which of the following objects would be best to use to create a model that represents Earth's layers?



- 10 Look at the diagram describing a living organism.



What belongs in the empty box?

- F require electricity
- G eat food for energy
- H need light to see
- J made of one or more cells

STAAR CONNECTION™
Diagnostic Series™ Grade 6 Science
TEKS Alignment Chart

Student Name:	STAAR CONNECTION™ Grade 6 Diagnostic Series Science
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The following charts provide the correct answer to each assessment question, along with the corresponding content strand, content student expectation, and process student expectation.

Circle the number of any question that has been answered incorrectly. Circle the TEKS that need additional reinforcement.

Assessment 1				
Item Number	Correct Answer	Content Strand	Content Student Expectation (TEKS)	Process Student Expectation (TEKS)
1	D	Scientific investigation and reasoning	6.1A	6.1A
2	G	Matter and energy	6.5A	—
3	B	Force, motion, and energy	6.8A	6.3A
4	J	Earth and space	6.10A	6.3B
5	C	Organisms and environments	6.12A	—
6	J	Scientific investigation and reasoning	6.1A	6.4B
7	C	Matter and energy	6.5A	—
8	J	Force, motion, and energy	6.8A	6.3A
9	B	Earth and space	6.10A	6.3C
10	J	Organisms and environments	6.12A	6.3A