

Grade 5

FCAT 2.0 Science

Sample Questions

The intent of these sample test materials is to orient teachers and students to the types of questions on FCAT 2.0 tests. By using these materials, students will become familiar with the types of items and response formats that they will see on the actual test. The sample questions and answers are not intended to demonstrate the length of the actual test, nor should student responses be used as an indicator of student performance on the actual test. Additional information about test items can be found in the *FCAT 2.0 Test Item Specifications* at <http://fcats.fldoe.org/fcat2/itemspecs.asp>.

The FCAT 2.0 Science tests and sample questions and answers are based on the 2008 Next Generation Sunshine State Standards.

The sample questions for students and the sample answers for teachers are only available online, at <http://fcats.fldoe.org/fcat2/fcatitem.asp>.

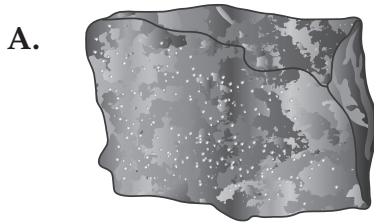
Directions for Answering the Science Sample Questions

Mark your answers on the Science Sample Answer Sheet on page 9. If you don't understand a question, ask your teacher to explain it to you. Your teacher has the answers to the sample questions.

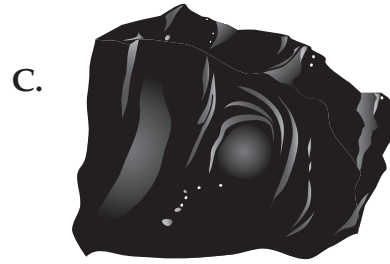
Use the space in this booklet to do your work on the multiple-choice questions, but be sure to put your answers on the Sample Answer Sheet.

- 1 Ariana uses balloons to investigate static electricity. Which of the following **best** explains what will happen when she brings two positively charged balloons close to each other?
- A. The balloons will move apart.
 - B. One balloon will lose its charge.
 - C. The balloons will come together.
 - D. One balloon will gain a negative charge.
- 2 The stem is an important part of many plants. Which of the following is **most** similar to the role performed by the stem of a plant?
- F. an anchor holding a boat in place
 - G. a snack company producing energy bars
 - H. a colorful sign attracting people into a store
 - I. an elevator transporting supplies from one floor to another

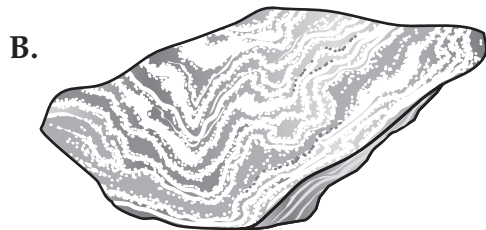
3 Roger collected four rock samples and wrote a description of how each was formed. Which of the following rocks that Roger collected is a metamorphic rock?



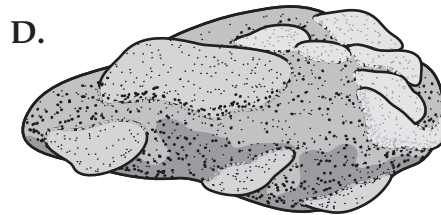
Formed from magma that cooled slowly



Formed from lava that cooled quickly



Formed by pressure and heat over time



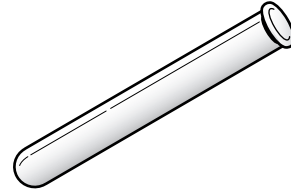
Formed by pieces of rock cemented together

- 4 Mr. Washington mixed iron filings with sand. Then, he asked his students to separate the iron filings from the sand. Which of the following is the **best** tool to use to separate the iron filings from the sand?



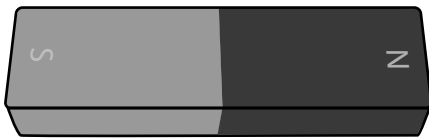
Hand Lens

F.



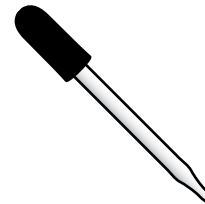
Test Tube

H.



Bar Magnet

G.

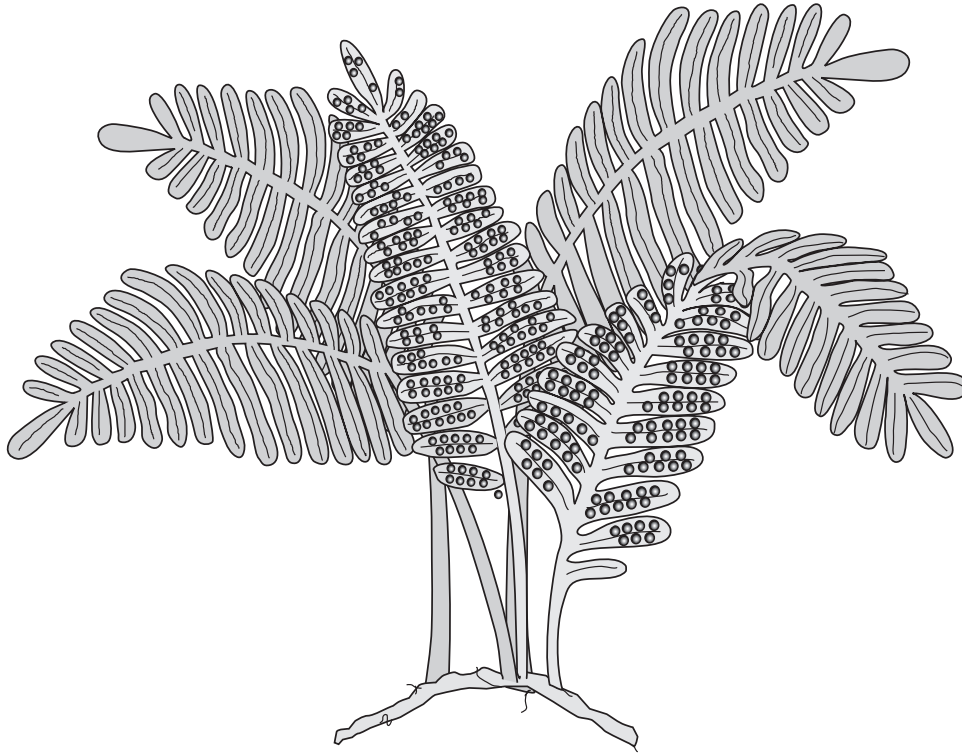


Eyedropper

I.

- 5 Jenny measures the outside temperature as 16 degrees Celsius ($^{\circ}\text{C}$), 61 degrees Fahrenheit ($^{\circ}\text{F}$). She observes precipitation falling from the clouds in a solid form. What type of precipitation is Jenny **most likely** observing?
- A. hail
 - B. rain
 - C. sleet
 - D. snow

- 6 Plants are classified according to their structures. The plant pictured below reproduces without seeds and has simple tubes for transporting water.



In which group of plants would this plant be classified?

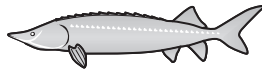
- F. spore-producing plants with many leaves
- G. plants that produce fruit on their leaves
- H. plants that carry seeds on their leaves
- I. flowering plants with many leaves

- 7 Erosion and weathering can both cause changes to the surface of Earth. Which of the following happens **only** because of erosion and NOT because of weathering?
- A. Rocks form deep underground.
 - B. Rocks become smooth and round.
 - C. Rocks are broken apart into small pieces.
 - D. Rocks are moved from one place to another.
- 8 Astronomers study many different kinds of objects in our Solar System. Which of the following **best** describes a difference between comets and asteroids?
- F. Comets orbit planets, and most asteroids orbit the Sun.
 - G. Comets are hot balls of gas, and asteroids are made mostly of ice.
 - H. Comets are made mostly of ice, and asteroids are made mostly of rocks.
 - I. Comets orbit the Sun between Mars and Jupiter, and asteroids form patterns in the sky.

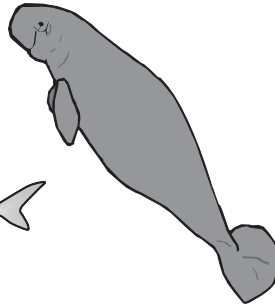
- 9 The organisms shown below live in or near bodies of water. Some are classified as vertebrates and some as invertebrates.



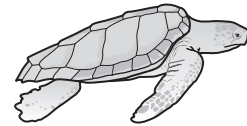
Crab



Fish



Manatee



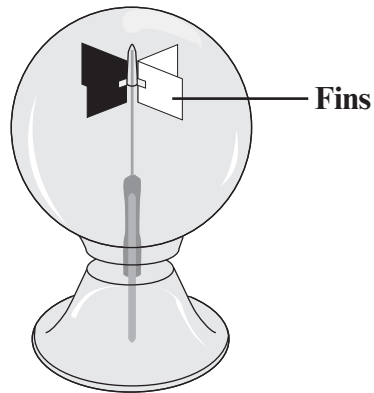
Turtle

not to scale

Which organism is classified as an invertebrate?

- A. crab
- B. fish
- C. manatee
- D. turtle

- 10 A radiometer is a device with fins that spin when light energy strikes them. A picture of a radiometer is shown below. As part of an experiment, a light source was placed 50 centimeters (cm) from a radiometer. The light source gave off four different-colored lights for 30 seconds (s) each. After each color of light was turned off, the amount of time the fins on the radiometer spun was recorded. The results are shown in the table below.



Radiometer

RADIOMETER DATA

Color of Light	Spinning Time (s)
Red	46
Green	55
Blue	72
White	75

Which color of light provided the **greatest** amount of light energy according to the data in the table?

- F. red
- G. green
- H. blue
- I. white

Name _____

Answer all the Science Sample Questions on this Sample Answer Sheet.

1 A B C D

6 F G H I

2 F G H I

7 A B C D

3 A B C D

8 F G H I

4 F G H I

9 A B C D

5 A B C D

10 F G H I



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