2011

FCAT

Florida Comprehensive Assessment Test®

Grade 5
FCAT Science
Sample Questions

Student Name

The intent of these sample test materials is to orient teachers and students to the types of questions on FCAT 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 test materials 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 Test Item Specifications* at http://fcat.fldoe.org/fcatis01.asp and previously released FCAT tests at http://fcat.fldoe.org/fcatrelease.asp.

Directions for Answering the Science Sample Questions

The questions in this booklet are called multiple-choice questions. **Each multiple-choice question is followed by several answer choices.** Read all the answer choices under each question and decide which answer is correct. Fill in the bubble next to the answer choice you think is correct for each multiple-choice question.

Mark your answers in this booklet. If you don't know how to answer a question, ask your teacher to explain it to you. Your teacher has the answers to the sample questions.

The sample questions for students and the sample answers for teachers will only be available online at: http://fcat.fldoe.org/fcatsmpl.asp.

1 Melissa's school rings a bell to alert students that it is time to start class. When the bell rings, it vibrates. The use of vibrations to send messages is an example of which type of energy?

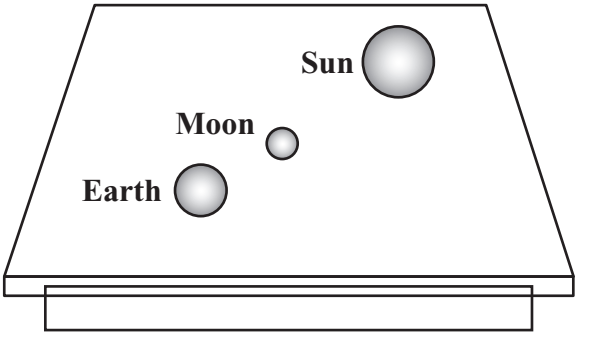
Ⓐ chemical

Ⓑ heat

Ⓒ light

Ⓓ sound

2 Paul built this model of the Sun, the Moon, and Earth.



Paul's Model

not to scale

Which phase of the Moon is shown in Paul's model?

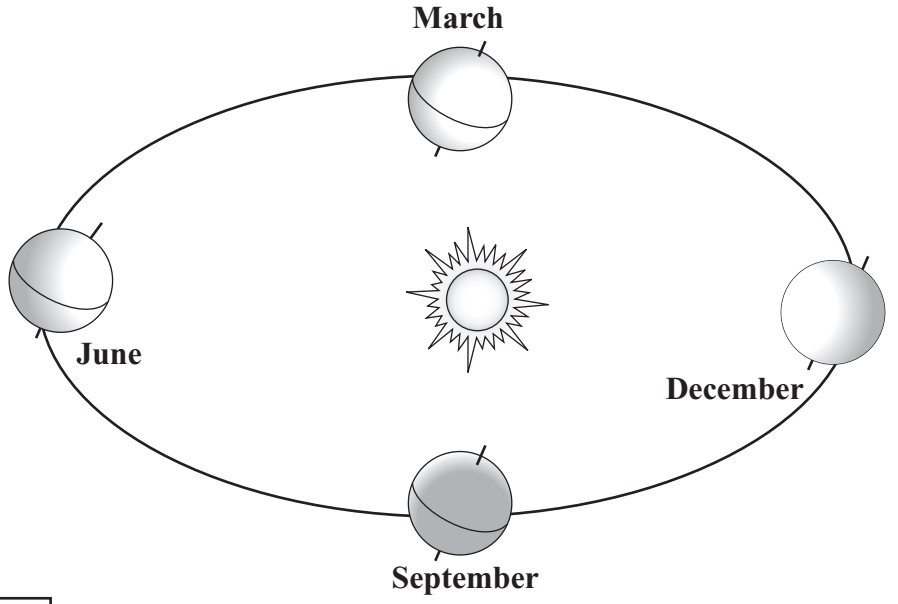
Ⓕ full moon

Ⓖ new moon

Ⓗ first quarter

Ⓘ third quarter

3 The amount of direct sunlight the Northern Hemisphere receives changes throughout the year. The diagram below shows Earth revolving around the Sun.



not to scale

In which month will the Northern Hemisphere receive the **greatest** amount of direct sunlight?

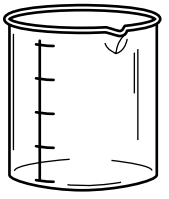
Ⓐ March

Ⓑ June

Ⓒ September

Ⓓ December

4 Lakisha wants to collect 20 milliliters (mL) of water from a forest stream so she can observe the tiny organisms that live in the water. Which would be the **best** tool for measuring exactly 20 mL of water?

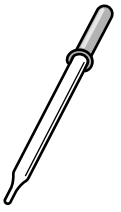


250 mL beaker

Ⓕ

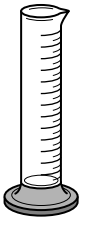
30 mL test tube

Ⓗ



2 mL dropper

Ⓖ



50 mL graduated cylinder

Ⓘ

5 Some plants have thick and waxy layers on top of their leaves. This reduces water loss from evaporation. Where would a plant **without** waxy leaves grow successfully?

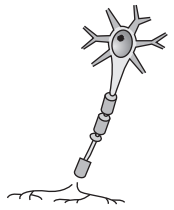
Ⓐ where it is very cold at night

Ⓑ where it is very hot during the day

Ⓒ where there is plenty of water available

Ⓓ where there is very little water available

6 There are many different shapes and sizes of animal cells. The figures below show examples of cells found in humans.



Nerve Cell

Muscle Cells

Red Blood Cells

not to scale

What determines the shapes of these different types of cells?

Ⓕ the age of the animal

Ⓖ what the animal eats for food

Ⓗ the function of the animal cell

Ⓘ whether the animal is male or female

7 Everglades National Park is a marshland ecosystem. Fish, insects, frogs, grasses, lizards, wading and land birds, and deer are found in the Everglades. In this ecosystem, the deer eat the grass. Grass is the **best** source of which of the following?

Ⓐ water

Ⓑ energy

Ⓒ sunlight

Ⓓ carbon dioxide (CO_2)

8 William used a hammer to pound a nail into a wooden board. When the nail was about halfway through the board, he stopped and turned the board upside down. The nail stayed in place in the board. Which of the following acts on the nail to keep it in place in the board?

Ⓕ friction

Ⓖ gravity

Ⓗ magnetism

Ⓘ weight

9 Florida has many limestone caves containing formations called stalactites. Stalactites are long, thin structures that hang from the ceilings of some caves. A picture of stalactites is shown below.

Which of the following **most likely** causes stalactites to form?

Ⓐ earthquakes

Ⓑ wind erosion

Ⓒ water dripping

Ⓓ animals burrowing

10 Carl read a science fiction story in which a woman traveled to a planet in another galaxy. He knows that travel to other galaxies is not yet possible. Which of the following is the **main** reason why humans are not able to travel to other galaxies?

Ⓕ Planets in other galaxies are too far away.

Ⓖ Planets in other galaxies do not have gravity.

Ⓗ Planets in other galaxies are too cold for humans.

Ⓘ Planets in other galaxies have no solid landing surfaces.

11 Patrick and Estella added water plants to their goldfish bowl and placed the bowl in direct sunlight. A few hours later, they noticed the underwater plants had tiny air bubbles on the surface of the leaves. What caused the air bubbles to form on the leaves?

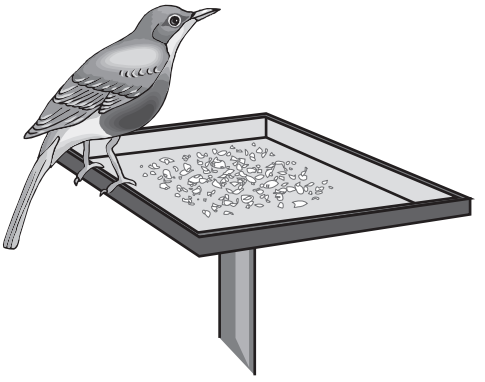
Ⓐ the process of evaporation

Ⓑ the process of photosynthesis

Ⓒ goldfish breathing on the plants

Ⓓ an increase in water temperature

12 Arnella sometimes leaves bread pieces on her bird feeder for the robins to eat. She is trying to determine which type of bread—rye, wheat, or white—robins like. She hypothesized that robins like wheat bread more than other types of bread.



Arnella places equal amounts of each bread on the bird feeder. What information would help determine if her hypothesis is correct?

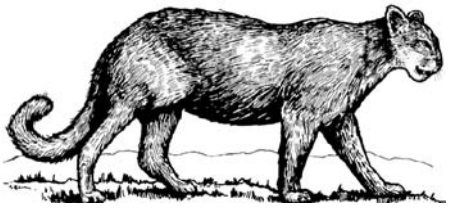
Ⓕ when the robins come to eat

Ⓖ how many robins come to eat

Ⓗ which type of bread is gone first

Ⓘ how long until all the bread is gone

13 The Florida panther is an endangered species living primarily in and around the Everglades. Cows, raccoons, black bears, and bobcats also live in Florida. The teeth of these animals enable them to eat different things. A drawing of a Florida panther and a chart comparing the diets of these Florida animals are shown below.



Florida Panther

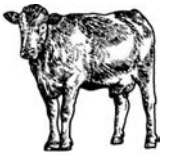
FLORIDA ANIMALS

Animal	Diet
Black bear	nuts, acorns, insects
Bobcat	mice, reptiles, birds
Cow	corn, grass, hay
Florida panther	deer, raccoons, armadillos
Raccoon	fruit, acorns, frogs, fish

Using the information in the chart, which of the other animals has teeth that are **most** similar to those of a Florida panther?

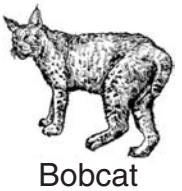
Black bear

Ⓐ



Cow

Ⓒ



Bobcat

Ⓑ

Raccoon

Ⓓ

Notes

Notes

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