

2009

FCAT

Florida Comprehensive Assessment Test®

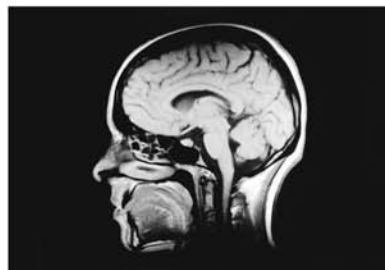
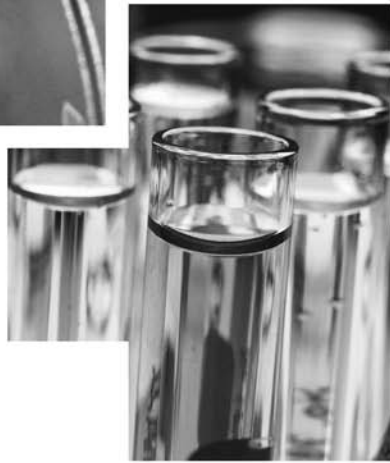
Student Name



SCIENCE

SAMPLE TEST BOOK

SCIENCE



GRADE

5

FCAT Sample Test Materials

These sample test materials are designed to help you prepare to answer FCAT questions. These materials introduce you to the kinds of questions you will answer when you take the FCAT and include hints for responding to the different kinds of FCAT questions. The FCAT Science sample test materials for Grade 5 are composed of the books described below:

- Sample Test Book**
Includes a science sample test and instructions for completing the sample test. (Copies are available for all students in the tested grade.)
 - Sample Answer Key**
Includes answers and explanations for the questions in the sample test. (Copies are available for classroom teachers only.)
- = This book

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FCAT Science Sample Test Book



Taking the FCAT Science Sample Test Page 3

This section introduces the FCAT Science Sample Test. It includes a description of the different kinds of questions on the FCAT, hints for answering FCAT Science questions, and an estimate of the time required to complete the sample test.

FCAT Science Sample Test Page 5

The Science Sample Test consists of 15 practice questions that are similar to questions on the FCAT.

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Taking the FCAT Science Sample Test

Hints for Taking the FCAT Science Test

Here are some hints to help you do your best when you take the FCAT Science test. Keep these hints in mind when you answer the sample questions.

- ✓ **Learn how to answer each kind of question.** The FCAT Science test for Grade 5 has three types of questions: multiple-choice, short-response, and extended-response.
- ✓ **Read each question carefully.**
- ✓ **Check each answer to make sure it is the best answer for the question.**
- ✓ **Answer the questions you are sure about first.** If a question seems too difficult, skip it and go back to it later.
- ✓ **Be sure to fill in the answer bubbles correctly.** Do not make any stray marks around answer spaces.
- ✓ **Think positively.** Some questions may seem hard to you, but you may be able to figure out what to do if you reread the question carefully.
- ✓ **When you have finished each question, reread it to make sure your answer is reasonable.**
- ✓ **Relax.** Some people get nervous about tests. It's natural. Just do your best.

How to Answer the “Read, Inquire, Explain” Questions

Answers to the short- and extended-response problems can receive full or partial credit. You should try to answer these questions even if you are not sure of the correct answer. If a portion of the answer is correct, you may get a portion of the points.

- ✓ Allow about 5 minutes to answer the short “Read, Inquire, Explain” questions and about 10 to 15 minutes to answer the long ones.
- ✓ Read each question carefully.
- ✓ If you do not understand the question, read it again and try to answer one part at a time.
- ✓ Be sure to answer every part of the question.
- ✓ Be sure to keep your writing or drawings inside the box.
- ✓ Reread your explanation to make sure it says what you want it to say.

Directions for Taking the Science Sample Test

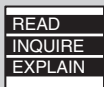
Some of the questions in this Sample Test are called multiple-choice questions. **A multiple-choice question is followed by several answer choices.** Read all the answer choices under each question and decide which answer is correct. For this sample test, you will fill in the bubble next to the answer choice you think is correct for each multiple-choice question.

This Sample Test contains 15 science questions. It should take about 30 to 45 minutes to answer all the questions. You will mark your answers in this book. If you don’t know how to answer a question, just ask your teacher to explain it to you. Your teacher has the answers to the sample test questions.

FCAT Science Sample Test



FCAT Question Symbols



This symbol appears next to questions that require short written answers. Use about 5 minutes to answer each of these questions.

A complete and correct answer to each of these questions is worth 2 points. A partially correct answer is worth 1 point.

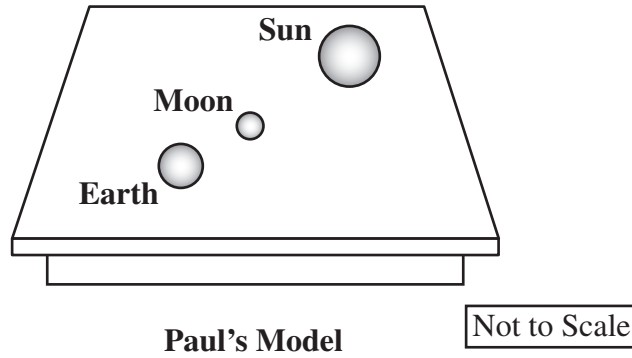


This symbol appears next to questions that require longer written answers. Use about 10 to 15 minutes to answer these questions.

A complete and correct answer to each of these questions is worth 4 points. A partially correct answer is worth 1, 2, or 3 points.

- 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

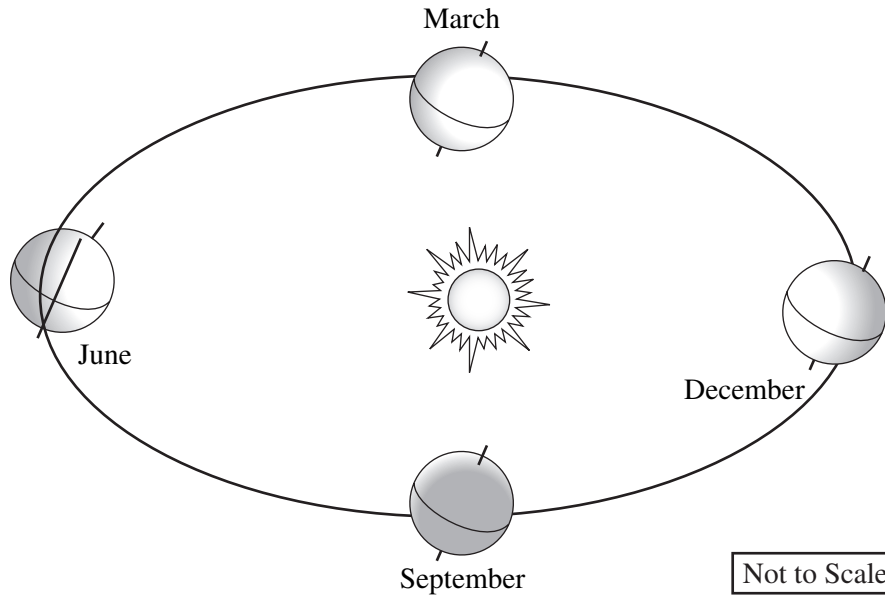
- 2 Paul built this model of the Sun, the Moon, and Earth.



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.

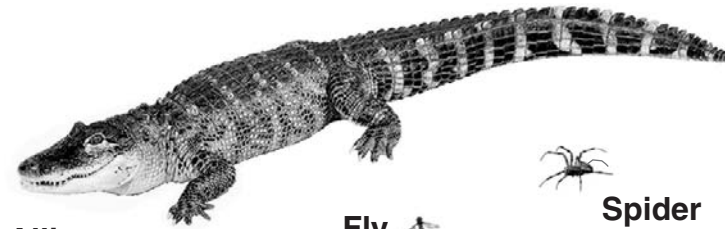


In which month will the Northern Hemisphere receive the **greatest** amount of direct sunlight?

- (A) March
- (B) June
- (C) September
- (D) December

4 The animals shown below live in the swampy, wooded areas of Florida.

READ
INQUIRE
EXPLAIN



Alligator



Fly



Spider



Frog

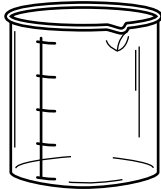


Raccoon

Not to Scale

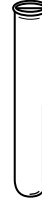
How would the animals shown above be connected in a food web? Explain your answer using words or a labeled diagram.

- 5 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?



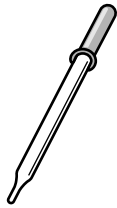
250 mL beaker

(F)



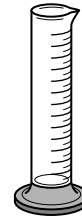
30 mL test tube

(H)



2 mL dropper

(G)

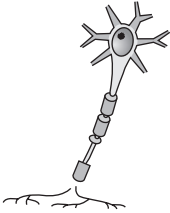


50 mL graduated cylinder

(I)

- 6 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

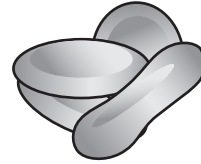
- 7 There are many different shapes and sizes of animal cells. The figures below show examples of cells found in humans.



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

- 8 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 (CO₂)
- 9 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

- 10 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.

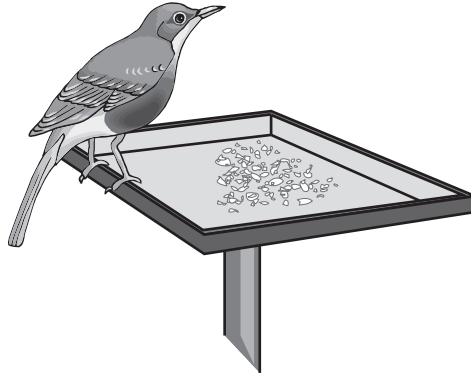


Which of the following **most likely** causes stalactites to form?

- Ⓐ earthquakes
- Ⓑ wind erosion
- Ⓒ water dripping
- Ⓓ animals burrowing

- 11 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.
- 12 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

- 13 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

14 At the park, Matthew has collected 20 pill bugs from under rocks, logs, boards, and bricks. Matthew wants to conduct an investigation to find out if pill bugs prefer moist areas or dry areas.

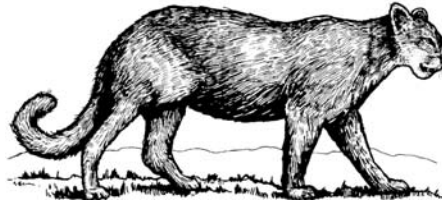
READ
INQUIRE
EXPLAIN



Pill Bug

Design a procedure Matthew could follow to test whether pill bugs prefer moist areas or dry areas.

- 15 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

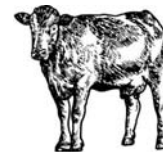
Animal	Diet
Black bear	nuts, acorns, insects
Bobcat	mice, reptiles, birds
Cow	corn, grass, hay
Florida panther	deer, raccoons, armadillos
Raccoon	fruit, acorns, frogs, fish

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

(A)



Cow

(C)



Bobcat

(B)



Raccoon

(D)



This is the end of the Science Sample Test.
Until time is called, go back and check your work or answer questions you did not complete. When you have finished, close your Sample Test Book.

Notes



FLORIDA DEPARTMENT OF EDUCATION
www.fldoe.org

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SCIENCE