

Student Name _____

Teacher Name _____

School _____

System _____



TENNESSEE

Tennessee Comprehensive Assessment Program

Achievement Test ~ Grade 7

Item Sampler



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Introduction

What is the TCAP Achievement Test?

The TCAP Achievement Test is a multiple-choice test designed to measure student achievement in certain skills in four content areas: Reading/Language Arts, Mathematics, Science, and Social Studies. The sample questions in this on-line Item Sampler are representative of the item types and item formats that will be used in the actual test, including those questions with and without art.

What are the questions testing?

Questions are written to test student performance in state content standards. The State Content Standards and Performance Indicators were developed by the Tennessee Department of Education. These Standards and Performance Indicators are listed on the State Department of Education Web site at <http://www.state.tn.us/education/curriculum.shtml>.

Who will be tested?

All students in grades 3 through 8 will be tested.

How long will the tests take?

The length of the tests will vary, depending on the grade level. The time limits are generous and allow most students time to finish. Extended time limits only apply to students who are eligible for special or English Language Learner (ELL) accommodations.

How do I use the sample questions?

These questions provide information about the TCAP Achievement Test. The questions in the on-line Item Sampler are representative of questions that will be on the TCAP Achievement Test.

In a classroom learning session, these questions can be used to prepare students for the actual test. Item types with and without art are presented to better familiarize students with the actual test format.

An answer key for the sample questions is provided at the end of this on-line Item Sampler.

How will the tests be scored?

The test answers will be machine scored. Results from the test provide information about how well students performed on the content being tested.

May calculators be used?

Calculators may be used on Part 1 and 2 of the Mathematics portions of the TCAP Achievement Test (grades 3–8) as per system policy.

Which test accommodations may be used?

The Achievement Test may be administered using various procedures that are used during the student’s daily educational program. Certain conditions must be met for students to be eligible for special and ELL accommodations.

Here are some tips for preparing students for the test.

Remind students to:

Relax: It is normal to be somewhat anxious before the test. Remember that the score is only one of a number of measures of performance.

Listen: Listen to and read the test directions carefully.

Plan Use of Time: First, answer all the questions you are sure about. Do not spend too much time on any one question. If a question seems to take too long, skip it and return to it later if you have extra time.

Pause and Think: If you are not sure how to answer a question, carefully read it again. Rule out answer choices that you know are incorrect and then choose from those that remain.

Reading/Language Arts



Directions

Luisa wrote the following essay. It contains mistakes. Read the essay and answer Numbers 1 through 11.

Now I See!

(1) I never appreciated my eyeglasses until I had to write this report for history class. (2) Now I am having an appreciation for this wonderful invention.

(3) I always thought that Benjamin Franklin invented eyeglasses. (4) He simply added to the invention by creating bifocal lenses that allow a person to see both near and far out of the same lens. (5) In 1286 well before Benjamin Franklin the first eyeglasses were created in Italy.

(6) The first glasses were made by placing small magnifieing lenses into two round frames connected by rivets. (7) People used these glasses for seeing things up close. (8) The first lenses were cloudy and fragile. (9) Cloudy lenses were not the only problem with early eyeglasses holding them in place was a challenge. (10) People had to hold them in place by hand. (11) If they didn't hold them in place by hand, their noses were pinched severely. (12) The Spanish and Chinese tried ways of attaching ribbons to the frames to help keep those in place, but the attempts were unsuccessful because the lenses were too heavy.

(13) Even with all these problems, sales of eyeglasses never decreased. (14) In fact, when books became available, the demand for eyeglasses increased. (15) There in those days were no eye doctors, so people visited eyeglass peddlers. (16) People tried on pair after pair until they found one they could see through clear.

(17) In the early 1700s, Edward Scarlett solved the problem of keeping eyeglasses where they belonged. (18) He added wire sidepieces that pressed against the temple to hold the glasses in place. (19) About twenty-five years later sidepieces were invented.

(20) It is hard to imagine that it took seven hundred years to perfect eyeglasses. (21) This invention has a long and interesting history.

Go On ►

Reporting Category: 1 Language

Performance Indicator: 0701.1.1 Identify the correct use of nouns (i.e., common/proper, singular/plural, possessives, direct/indirect objects, predicate) and pronouns (i.e., agreement, reflexive, interrogative, demonstrative) within context.

1 Read Sentence 12.

The Spanish and Chinese tried ways of attaching ribbons to the frames to help keep those in place, but the attempts were unsuccessful because the lenses were too heavy.

What is the correct way to write the underlined word?

- A** them
- B** him
- C** these
- D** correct as is

Reporting Category: 1 Language

Performance Indicator: 0701.1.2 Identify the correct use of verbs (i.e., action/linking, regular/irregular, agreement, perfect tenses, verb phrases) within context.

2 Read Sentences 1 and 2.

I never appreciated my eyeglasses until I had to write this report for history class. Now I am having an appreciation for this wonderful invention.

What is the correct way to write the underlined part of Sentence 2?

- F** has
- G** have
- H** are having
- J** been having

Reporting Category: 1 Language

Performance Indicator: 0701.1.3 Identify the correct use of adjectives (i.e., common/proper, comparative/superlative, adjective clauses) and adverbs (comparative and superlative forms) within context.

3 Read Sentence 16.

People tried on pair after pair until they found one they could see through clear.

What is the correct way to write the underlined part of this sentence?

- A** see through clearly
- B** see through more clear
- C** see through clearest
- D** see through more clearer

Reporting Category: 1 Language

Performance Indicator: 0701.1.5 Identify the correct use of prepositional phrases (place correctly according to the words they modify within the sentence) within context.

4 Read Sentence 15.

There in those days were no eye doctors, so people visited eyeglass peddlers.

What is the best way to write this sentence?

- F** So in those days there were no eye doctors because people visited eyeglass peddlers.
- G** So people visited eyeglass peddlers because in those days there were no doctors.
- H** In those days there were no eye doctors, so people visited eyeglass peddlers.
- J** In those days, so people visited eyeglass peddlers; there were no doctors.

Go On ►

Reporting Category: 1 Language

Performance Indicator: 0701.1.6 Identify the correct use of commas (i.e., compound sentences, coordinating conjunctions, introductory words, appositives, interrupters) within context.

5 Read Sentence 5.

In 1286 well before Benjamin Franklin the first eyeglasses were created in Italy.

Choose the correct way to punctuate this sentence.

- A** In 1286, well before Benjamin Franklin, the first eyeglasses, were created in Italy.
- B** In 1286 well before, Benjamin Franklin, the first eyeglasses, were created in Italy.
- C** In 1286, well before Benjamin Franklin, the first eyeglasses were created in Italy.
- D** In 1286, well before Benjamin Franklin the first eyeglasses, were created in Italy.

Reporting Category: 1 Language

Performance Indicator: 0701.1.6 Identify the correct use of commas (i.e., compound sentences, coordinating conjunctions, introductory words, appositives, interrupters) within context.

6 Read Sentence 19.

About twenty-five years later sidepieces were invented.

Choose the revision that shows correct comma usage in the sentence.

- F** About twenty-five years later, sidepieces, were invented.
- G** About twenty-five years later, sidepieces were invented.
- H** About twenty-five years later sidepieces, were invented.
- J** About, twenty-five years later, sidepieces were invented.

Reporting Category: 1 Language

Performance Indicator: 0701.1.7 Identify within context a variety of appropriate sentence-combining techniques (i.e., comma + coordinating conjunction, use of semicolon, introductory phrases or clauses).

7 Read Sentences 10 and 11.

People had to hold them in place by hand. If they didn't hold them in place by hand, their noses were pinched severely.

What is the best way to combine these sentences?

- A** People had to hold them in place by hand, or, if they didn't hold them in place by hand, they severely pinched their noses.
- B** Pinched severely were their noses if people did not hold them in place by hand.
- C** When people did not hold them in place by hand, their noses were pinched severely.
- D** People had to hold them in place by hand, so they held them in place by hand and were not pinched severely on their noses.

Go On ►

Reporting Category: 1 Language

Performance Indicator: 0701.1.8 Select the most appropriate method to correct a run-on sentence (i.e., conjunctions, semicolons, periods to join or separate elements) within context.

8 Read Sentence 9.

Cloudy lenses were not the only problem with early eyeglasses holding them in place was a challenge.

What is the best way to correct this run-on sentence?

- F** Cloudy lenses were not the only problem with early eyeglasses; and holding them in place was a challenge.
- G** Cloudy lenses were not the only problem with early eyeglasses. Holding them in place was a challenge.
- H** Cloudy lenses were not the only problem with early eyeglasses, holding them in place was a challenge.
- J** Cloudy lenses were not the only problem with early eyeglasses, so holding them in place was a challenge.

Reporting Category: 1 Language

Performance Indicator: 0701.1.16 Identify correctly and incorrectly spelled words in context.

9 Read Sentence 6.

The first glasses were made by placing small magnifieing lenses into two round frames connected by rivets.

What is the correct way to spell the underlined word?

- A** magnafying
- B** magnefieing
- C** magnifying
- D** maganifing

Go On ►

Reporting Category: 3 Writing and Research

Performance Indicator: 0701.3.1 Identify the purpose for writing (i.e., to inform, to describe, to explain, to persuade, to entertain).

10 What is the main purpose of this essay?

- F** to persuade readers of the importance of eyeglasses
- G** to describe to readers the many uses of eyeglasses
- H** to entertain readers with a funny experience about eyeglasses
- J** to inform readers of interesting facts about eyeglasses

Reporting Category: 3 Writing and Research

Performance Indicator: 0701.3.9 Select illustrations, explanations, anecdotes, descriptions and/or facts to support key ideas.

11 To best support the essay, Luisa should include an illustration of

- A** a person wearing modern eyeglasses.
- B** both modern and old-fashioned eyeglasses.
- C** an eyeglass peddler's cart with customers.
- D** the glass and sidepieces used in making early lenses.

Directions

Read the speech. Then answer Numbers 12 through 25.

Females and Football

1 Most people have had someone tell them that they could not do something before seeing what their abilities really were. I have, and I am here to share some information with you and to ask you for your help. My name is Evelyn Foster, and it has always been my dream to play football for a school team.

2 Ever since I was a young girl, I have loved kicking the football as high and as far as I could. The more I practiced, the better I became at kicking field goals. Each of my brothers went on to play football for both West Middle School and West High School. I hope to do the same. I would be honored to be the first female to play football for West Middle School. However, the one obstacle standing in the way of my being part of the school's only football team is that I am a girl.

3 I have been told that my trying out for the boys' football team would upset the rest of the student body. I am here today to ask you to listen to my request and to please sign a petition that would allow me to try out for the boys' football team.

4 According to the Women's Sports Foundation, about 700 girls in the United States play football each year. This was made possible in 1972, when Congress passed Title IX of the Educational Amendments Act. Title IX was created to ensure fairness to public elementary, middle, and high school students. Chapter 38 of the law was written to protect students from discrimination based on gender or blindness. Any school that uses federal money is not allowed to discriminate against people based on these characteristics. Since our school uses government money, I believe that our school risks breaking the law if it remains impermissible for girls to try out for the boys' football team.

5 Some of you may think that football is too dangerous for girls to play. At the middle school level, this is simply untrue. From late elementary school through early high school, girls are often taller than boys. It is unlikely that boys at this age will have much greater strength.

6 Additionally, there are different positions on a football team, and some of these are considered to be less dangerous. It is true that players on the offensive and defensive line crash into each other. However, punters and kickers have no physical contact with other players. Many of you probably know that a punter kicks the ball when the offensive team doesn't move ten or more yards in three tries. Then, the punter leaves the playing field. A kicker makes the opening kickoff to start the first and second halves of the game. That person also kicks the ball after every touchdown and field goal. I want the opportunity to play either of these positions.

7 Football is a great sport, and I know it would be a great experience for me because I would be part of one of the best middle school teams. Any coach will tell you that it's good for students to be involved in sports and school activities. Sports teach kids how to get along with others and to meet goals. Sports also



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Go On ►

help individuals learn self-control. Sports teach kids about teamwork. Also, playing sports keeps kids out of trouble. In addition, regular physical activity helps students stay healthier, as well as sleep and manage stress better. As you can see, opening up one more sport to female students here at West Middle School will benefit us greatly.

- 8 Friends, I am asking for your help. I am collecting signatures from students who would support female students joining the football team. These signatures will be part of a petition that will be presented to the athletic department and to the school administration. With your help, West School District might open the sport of football to all players. Pick up a pen and do your part to make history today.

Reporting Category: 2 Vocabulary

Performance Indicator: 0701.1.20 Recognize and use grade appropriate and/or content specific vocabulary within context.

12 Read this sentence from Paragraph 2.

I would be honored to be the first female to play football for West Middle School.

What does honored mean in this sentence?

- F** eager
- G** proud
- H** surprised
- J** anxious

Reporting Category: 2 Vocabulary

Performance Indicator: 0701.1.21 Decode unknown grade level words in context, using previously learned strategies as aids in determining meaning.

13 Read this sentence from Paragraph 4.

Since our school uses government money, I believe that our school risks breaking the law if it remains impermissible for girls to try out for the boys' football team.

What does impermissible mean in this sentence?

- A** complete directions
- B** not in need of
- C** having the right to do
- D** not being allowed

Go On ►

Reporting Category: 4 Communication and Media

Performance Indicator: 0701.2.1 Identify the purpose of a speech (i.e., to inform, to describe, to explain, to persuade, to entertain).

14 Evelyn gives this speech in order to

- F** inform school administrators of the importance of sports in schools.
- G** persuade people to sign a petition requesting a change in school policy.
- H** explain to the school athletic department that she is a talented football player.
- J** entertain people with a story about appreciating the value of school athletics and activities.

Reporting Category: 4 Communication and Media

Performance Indicator: 0701.2.2 Identify the targeted audience of a speech.

15 Who is Evelyn asking for help?

- A** lawmakers in Congress
- B** the school administrators
- C** the school athletic department
- D** students at West Middle School

Reporting Category: 4 Communication and Media

Performance Indicator: 0701.2.3 Identify the thesis and main points of a speech.

16 Which sentence from the speech best expresses the thesis?

- F** I have, and I am here to share some information with you and to ask you for your help.
- G** Ever since I was a young girl, I have loved kicking the football as high and as far as I could.
- H** However, the one obstacle standing in the way of my being part of the school's only football team is that I am a girl.
- J** Additionally, there are different positions on a football team, and some of these are considered to be less dangerous.

Reporting Category: 4 Communication and Media

Performance Indicator: 0701.2.4 Determine the most effective methods for engaging an audience during an oral presentation (e.g., making eye contact, adjusting speaking rate).

17 What can Evelyn do to best engage her audience?

- A** make eye contact with people around the room
- B** laugh many times to make the audience feel relaxed
- C** have others add comments to what she is saying
- D** speak softly so people have to make an effort to hear her

Go On ►

Reporting Category: 4 Communication and Media

Performance Indicator: 0701.2.6 Discern the organizational pattern of a speech (e.g., sequential, chronological, problem-solution, comparison-contrast, cause-effect).

18 What organizational pattern is used in this speech?

- F** cause-effect
- G** comparison-contrast
- H** problem-solution
- J** sequential

Reporting Category: 4 Communication and Media

Performance Indicator: 0701.2.8 Identify the functions and responsibilities of individual roles within an organized group (i.e., reporter, recorder, information gatherer, leader, timekeeper).

19 If Evelyn must organize a group to help her gather signatures, which group member should keep track of the number of signatures on her petition?

- A** the leader
- B** the recorder
- C** the reporter
- D** the timekeeper

Reporting Category: 4 Communication and Media

Performance Indicator: 0701.2.9 Distinguish between a summary and a critique.

20 Which paragraph is a critique of this speech?

- F** Many boys play football at West Middle School, and Evelyn Foster would like to join them. She has played for many years with her older brothers and believes she would be a good asset to the team. She would like to try for the position of kicker or punter.
- G** Evelyn Foster gives some interesting points to think about, but she does not consider the whole population of students. Not all students are interested in football.
- H** At West Middle School, girls are not allowed to play on the football team. Evelyn Foster would like to change this. She hopes that other students will join her efforts.
- J** Evelyn Foster has enjoyed playing football for many years and would like to participate on the middle school team. However, Evelyn has been told that playing on the boys' team may upset the student body. She would like for students to sign a petition to open football to all players.

Reporting Category: 3 Writing and Research

Performance Indicator: 0701.4.1 Select the most focused research topic.

21 After listening to Evelyn's speech, Tonya wants to learn more about the benefits of team sports. Which of these is the most focused research topic?

- A** rules of football
- B** girls in school sports
- C** sports funding through donations
- D** character development in team sports

Go On ►

Reporting Category: 5 Logic

Performance Indicator: 0701.5.2 Evaluate text for fact and opinion.

22 Choose the sentence from the speech that is a fact.

- F** Any school that uses federal money is not allowed to discriminate against students based on these characteristics.
- G** It is unlikely that boys at this age will have much greater strength.
- H** Football is a great sport, and I know it would be a great experience for me because I would be part of one of the best middle school teams.
- J** As you can see, opening up one more sport to female students here at West Middle School will benefit us greatly.

Reporting Category: 5 Logic

Performance Indicator: 0701.5.4 Identify examples of persuasive devices (i.e., bandwagon, loaded terms, testimonial, name-calling, plain folks).

23 Which persuasive device does Evelyn use most in her speech?

- A** plain folks
- B** name-calling
- C** bandwagon
- D** loaded terms

Reporting Category: 5 Logic

Performance Indicator: 0701.5.7 Identify a false premise in text.

24 Which sentence from the speech is an example of false premise?

- F** Most people have had someone tell them that they could not do something before seeing what their abilities really were.
- G** The more I practiced, the better I became at kicking field goals.
- H** Title IX was created to ensure fairness to public elementary, middle, and high school students.
- J** Some of you may think that football is too dangerous for girls to play.

Reporting Category: 4 Communication and Media

Performance Indicator: 0701.7.2 Select the visual image that best reinforces a viewpoint or enhances a presentation.

25 Which picture could Evelyn use to make the speech more effective?

- A** a football field
- B** her kicking the football
- C** the football team
- D** her playing football as a small child

Go On ►

Directions

A student wrote this report. It contains mistakes. Read the report and answer Numbers 26 through 35.

- 1 Many insects wear a natural camouflage that helps them to hide from predators. Without this camouflage, these creatures might not survive.
- 2 Other insects do not blend in with their environment, but they still have fascinating disguises. The tails of swallowtail butterfly wings can be mistaken for antennae, and the red and blue spots can be mistaken for eyes. This makes it hard for other creatures to predict which way the swallowtail butterfly will go when it moves, allowing it to fly away quickly.
- 3 Most people are aware of the insects that blend in with their environment to avoid unwanted attention. For example, the walking stick appears to be an ordinary twig. Some insects are shaped like leaves. These insects are usually green or light brown and often look like a cluster of several leaves of different sizes.
- 4 Some kinds of moths are disguised to look like completely different creatures. Clearwing moths resemble bees. Clearwing moths can hover in flight, and they make a buzzing sound by beating their clear wings very quickly. The hummingbird clearwing moth has a two-inch wingspan and is often mistaken for a hummingbird. The slightly smaller snowberry clearwing moth has black and yellow bands of color on its body, often causing it to be mistaken for a bumblebee.
- 5 Some insects are disguised to look more dangerous than they really are. _____, swallowtail butterfly caterpillars act the part of the creature they look like. These caterpillars have big, yellow dummy “eyes” on their backs. When one of these caterpillars is hidden in leaves, it looks very much like a small snake. Even though it is not a snake, its appearance is deceiving. When the caterpillar is annoyed by a predator, it will rise up and pose like a snake that is about to strike.
- 6 These are just a few of the many different kinds of disguises in the insect world. There are many more insects to explore and to learn about!

Reporting Category: 3 Writing and Research

Performance Indicator: 0701.3.2 Identify the audience for which a text is written.

26 Who would most likely be interested in reading this report?

- F** a person wanting to know about nature
- G** a teacher looking for an entertaining story
- H** a scientist who studies reptiles
- J** a student who is learning about insects

Reporting Category: 3 Writing and Research

Performance Indicator: 0701.3.3 Select an appropriate thesis statement for a writing sample.

27 Which sentence from the report is the thesis statement?

- A** Many insects wear a natural camouflage that helps them to hide from predators.
- B** Without this camouflage, these creatures might not survive.
- C** Some kinds of moths are disguised to look like completely different creatures.
- D** There are many more insects to explore and to learn about!

Go On ►

Reporting Category: 3 Writing and Research

Performance Indicator: 0701.3.4 Rearrange a multi-paragraphed work in a logical and coherent order.

28 Paragraph 2 is not in the correct place in the report. Where should it be moved?

- F** after Paragraph 3
- G** after Paragraph 4
- H** after Paragraph 5
- J** after Paragraph 6

Reporting Category: 3 Writing and Research

Performance Indicator: 0701.3.5 Select the appropriate time-order or transitional words/phrases to enhance the flow of a writing sample.

29 Read these sentences from Paragraph 5.

Some insects are disguised to look more dangerous than they really are. _____, swallowtail butterfly caterpillars act the part of the creature they look like.

Choose the transition word or phrase that belongs in the blank.

- A** For instance
- B** However
- C** Consequently
- D** Without a doubt

Reporting Category: 3 Writing and Research

Performance Indicator: 0701.3.6 Choose the supporting sentence that best fits the context and flow of ideas in a paragraph.

30 Which sentence best supports the ideas in Paragraph 3?

- F** Predators of the walking stick are birds, reptiles, and other insects.
- G** Bright colors are important to many living creatures.
- H** Many insects can fool predators because of their unique shape.
- J** Many students have probably seen a walking stick in a science class or textbook.

Reporting Category: 3 Writing and Research

Performance Indicator: 0701.3.7 Identify the sentence(s) irrelevant to a paragraph's theme or flow.

31 Which sentence from Paragraph 5 is repetitive and unnecessary?

- A** Some insects are disguised to look more dangerous than they really are.
- B** These caterpillars have big, yellow dummy "eyes" on their backs.
- C** Even though it is not a snake, its appearance is deceiving.
- D** When the caterpillar is annoyed by a predator, it will rise up and pose like a snake that is about to strike.

Go On ►

Reporting Category: 3 Writing and Research

Performance Indicator: 0701.3.8 Select an appropriate concluding sentence for a well-developed paragraph.

32 Which sentence is the best conclusion for Paragraph 3?

- F** Insects shaped like twigs and leaves avoid danger by looking like parts of a tree.
- G** All these insects have to do to escape notice is to stay still.
- H** Because these insects look like twigs and leaves, they prefer to live in trees.
- J** Many predators search trees, looking for these tasty insects.

Reporting Category: 3 Writing and Research

Performance Indicator: 0701.3.10 Select an appropriate title that reflects the topic of a written selection.

33 What would be a good title for this report?

- A** It Isn't Easy Being an Insect
- B** Fun With Insects
- C** Insects in Disguise
- D** Insect Safety

Reporting Category: 3 Writing and Research

Performance Indicator: 0701.3.11 Identify individual writing selections as technical, narrative, persuasive and/or descriptive in mode.

34 This report is an example of which type of writing?

- F** narrative
- G** technical
- H** persuasive
- J** descriptive

Reporting Category: 3 Writing and Research

Performance Indicator: 0701.3.12 Complete a graphic organizer (e.g., clustering, listing, mapping, webbing) with information from notes for a writing selection.

35 Look at the list the student made before writing this report.

Insect Camouflage

- Resemble parts of a tree
- Imitate other creatures
- _____

What information is missing from the list?

- A** Fly away quickly
- B** Live high up in trees
- C** Make loud buzzing sounds with their wings
- D** Appear more dangerous than they are

Go On ►

Directions

Read the passage. Then answer Numbers 36 through 48.

Eat Your Microbes, They're Good for You!

by Nidhi Kamra

1 Remember Little Miss Muffet? Yeah—the easily startled girl who sat on a tuffet,¹ eating her microbes.

2 “‘Microbes’? I think that’s curds and whey!” you say.

3 Relax. It’s the same thing. And I bet that you don’t even know what curds and whey are, anyway, do you?

Microbes in Your Food

4 Fermented dairy foods like curds (yogurt to you) and cheese (made from curds) contain probiotics—live microbes that provide numerous health benefits. Such “alive” foods are made by mixing a starter culture² containing microbes into pasteurized milk. Lactic acid bacteria (LAB) such as *lactobacillus bulgaricus* and *streptococcus thermophilus* are used as a starter for curds.

5 These bacteria, preferring desserts, make a meal out of lactose—the sugar found in milk. Once they’ve had their fill, they release lactic acid as a byproduct of their metabolism.³ If the milk is warm, the LAB multiply and increase the lactic acid. This makes milk sour and curdles the proteins in it, forming a gel-like curd. A greenish liquid, whey, floats on top (you’ve seen it on the top of a carton of yogurt) and is the result of noncurdled proteins. A gram of freshly made curds can contain 1,000,000,000 (one billion) LAB!

Eat 'Em While They're Alive

6 If eaten regularly, LAB can kill pathogens⁴ in your intestines and prevent diseases. However, these friendly microbes need to be eaten while they’re alive, energetic, and plentiful. (LAB in yogurt that are worn out due to an expired shelf-life, processing, and preservatives aren’t much help.) The acid in your stomach kills most microbes. If you eat enough LAB, though, some will survive and travel to your intestines.



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¹tuffet: a clump of low grass, or a low seat like a stool

²culture: living cells in a medium in which they can grow and multiply

³metabolism: the complex of physical and chemical processes occurring within a living cell or organism that are necessary for the maintenance of life

⁴pathogens: bacteria or viruses that cause disease

- 7 Your intestines are like a city—with many types of microbes living together. The LAB will compete for a home in this city, and once they're well settled in, they'll police the bad guys. Many people who are lactose-intolerant eat yogurt, as LAB produce lactase—the enzyme that helps digest lactose. Ancient cultures ate yogurt to strengthen their immune systems and aid digestion, among many other benefits.
- 8 Now that you know what a bowl of curds and whey really is, have one yourself. (Find a spider and a tuffet, if you want the right effect.) Or, better yet, make yogurt at home. Little Miss Muffet used leftover curds as a starter to make more curds. Leftover LAB can provide a lifetime of delicious, warrior microbes!

"Eat Your Microbes, They're Good for You!" by Nidhi Kamra, adapted from *Odyssey*, Feb. 2007: *Microbe Attack!*, © 2007 by Carus Publishing Company, published by Cobblestone Publishing. All Rights Reserved.

Reporting Category: 2 Vocabulary

Performance Indicator: 0701.1.18 Use context clues and background knowledge of roots and affixes to determine the meaning of unfamiliar words.

36 Read this sentence from Paragraph 6.

(LAB in yogurt that are worn out due to an expired shelf-life, processing, and preservatives aren't much help.)

The underlined root word helps the reader to understand that preservatives will make the product

- F** look attractive.
- G** sell quickly.
- H** last longer.
- J** taste better.

Go On ►

37 Read this sentence from Paragraph 7.

The LAB will compete for a home in this city, and once they're well settled in, they'll police the bad guys.

Which word is a synonym for police as used in this sentence?

- A** find
- B** arrest
- C** control
- D** use

Reporting Category: 3 Writing and Research

Performance Indicator: 0701.4.2 Identify levels of reliability among resources (e.g., eyewitness account, newspaper account, supermarket tabloid account, Internet source).

38 Which of these would provide the most reliable information about the active bacterial cultures in a carton of purchased yogurt?

- F** an Internet article about yogurt
- G** an advertisement for the product
- H** a recipe for homemade yogurt
- J** a nutrition label on the product

Reporting Category: 3 Writing and Research

Performance Indicator: 0701.4.3 Determine the most appropriate research source for a given research topic.

39 Which of these would be the best source for additional information on symptoms of lactose intolerance?

- A** a magazine article
- B** a journal entry
- C** a newspaper article
- D** a health textbook

Go On ►

Reporting Category: 3 Writing and Research

Performance Indicator: 0701.4.4 Distinguish between primary (i.e., interviews, letters, diaries, newspapers, personal narratives) and secondary (i.e., reference books, periodicals, Internet, biographies) sources.

40 Nadine is writing a report for her science class on how to ferment dairy foods. Which source is her primary source?

- F** a magazine article on the benefits of yogurt
- G** a Web site about current dairy-farming practices
- H** an interview with a local cheese maker
- J** a video explaining the process of making yogurt

Reporting Category: 5 Logic

Performance Indicator: 0701.5.5 Select the correct word or phrase to complete an analogy, using synonyms, antonyms, homonyms, categories, subcategories, whole/part, functions, verb forms).

41 Complete the analogy based on the passage.

Energetic is to active as preventive is to _____.

- A** suspicious
- B** able
- C** healthful
- D** carefree

Reporting Category: 5 Logic

Performance Indicator: 0701.5.6 Identify an example of deductive or inductive reasoning in text.

42 Which sentence from the passage shows an example of deductive reasoning?

- F** Fermented dairy foods like curds (yogurt to you) and cheese (made from curds) contain probiotics—live microbes that provide numerous health benefits.
- G** A greenish liquid, whey, floats on top (you’ve seen it on the top of a carton of yogurt) and is the result of noncurdled proteins.
- H** If eaten regularly, LAB can kill pathogens in your intestines and prevent diseases.
- J** Now that you know what a bowl of curds and whey really is, have one yourself.

Go On ►

Reporting Category: 5 Logic

Performance Indicator: 0701.5.8 Make inferences and draw conclusions based on evidence in text.

43 A reader can conclude that the food with the best source of friendly microbes is

- A** ice cream.
- B** aged cheese.
- C** cold, sweetened milk.
- D** freshly cultured yogurt.

Reporting Category: 6 Informational Text

Performance Indicator: 0701.6.1 Formulate clarifying questions before, during, or after reading.

44 Which question is not answered in the passage?

- F** Which dairy products have the most LAB?
- G** What type of food do LAB prefer?
- H** Why should a person eat LAB?
- J** How many LAB can live in a gram of curds?

Reporting Category: 6 Informational Text

Performance Indicator: 0701.6.2 Identify the main idea and supporting details in text.

45 Which sentence best supports the importance of eating LAB in foods?

- A** Lactic acid bacteria (LAB) such as *lactobacillus bulgaricus* and *streptococcus thermophilus* are used as a starter for curds.
- B** If the milk is warm, the LAB multiply and increase the lactic acid.
- C** (LAB in yogurt that are worn out due to an expired shelf-life, processing, and preservatives aren't much help.)
- D** Leftover LAB can provide a lifetime of delicious, warrior microbes!

Reporting Category: 6 Informational Text

Performance Indicator: 0701.6.3 Use text features to locate information and make meaning from text (e.g., headings, key words, captions, footnotes).

46 Where in the passage would the reader find the meaning of probiotics?

- F** in the footnotes
- G** in the summary paragraph
- H** in the section titled "Microbes in Your Food"
- J** in the section titled "Eat 'Em While They're Alive"

Go On ►

Performance Indicator: 0701.6.4 Interpret factual, quantitative, technical, or mathematical information presented in text features (e.g., maps, charts, graphs, time lines, tables, and diagrams).

47 Read this recipe.

Homemade Yogurt

1 gallon of milk
1 package of plain gelatin
¼ cup of boiling water
3 to 4 tbsp. of plain store-bought yogurt

Heat milk in large pot until very warm, yet not scalding hot because it will kill yogurt culture. Stir in the yogurt. Dissolve gelatin in boiling water. Cool and add to warm milk and yogurt mixture. Pour into pint-size jars. Place closed jars into two large pots of very hot water. Set in oven or other warm place to incubate¹ for about four or five hours until set. Refrigerate for weeks. Now you have delicious plain yogurt.

¹ **incubate:** maintain a favorable temperature to promote development

Based on the passage and the recipe, which step is most important when making yogurt?

- A** using the correct cooking utensils
- B** mixing the ingredients correctly
- C** keeping the mixture at a warm temperature
- D** storing the mixture for any amount of time

Reporting Category: 6 Informational Text

Performance Indicator: 0701.6.6 Identify the organizational structure of an informational text (i.e., chronological, cause-effect, comparison-contrast, sequential, problem-solution).

48 What is the main organizational structure of Paragraph 6?

- F** chronological
- G** cause-effect
- H** comparison-contrast
- J** problem-solution

Go On ►

Directions

Read the poem. Then answer Numbers 49 through 57.

The Lighthouse Keeper and the Herring Gull

by Bill Scott

The lighthouse keeper sat on a rock and a sad, salt tear wept he.
'I'm tired of biscuits and tins of beef, I want a fish for tea!
But I haven't a hook and I haven't a line to throw in the salty sea.'

He peered to the east where the breakers broke, he blinked his teary eye.
5 He looked behind where his tower rose like a steeple in the sky
And he saw a wise old herring gull perched on a rock close by.

Said the keeper, 'A gull has an easy time when he wants a fish to swallow.
He rises up till he spies a shoal where the billows bellow hollow.
He dives down deep and he gulps a fish, with another one to follow.'

10 The keeper found a rusty nail and hammered it into a hook;
He ravelled a string both long and strong from his cozy sea-boot sock;
He baited the line and cast it in with a crafty, hungry look.

He caught a whiting and a bream, he almost caught a whale.
He hooked a crab by its big, round claws and a flathead by the tail,
15 And he tossed each fish behind him, where they fell in an old tin pail.

Then he snavelled a shark that broke his line. He didn't really care.
He had fish enough to fry for tea, and for breakfast, and to spare,
And even enough for the herring gull that he thought deserved a share.

So he turned around to view his catch with shouts of joy and mirth,
20 But his roar of rage at what he saw was heard from Cairns to Perth¹—
An empty pail, and the fullest, fattest herring gull on earth.



"The Lighthouse Keeper and the Herring Gull" by Bill Scott, © Dolphin Creative. Used by permission.

¹**Cairns and Perth:** cities on opposite coasts of Australia

Reporting Category: 2 Vocabulary

Performance Indicator: 0701.1.18 Use context clues and background knowledge of roots and affixes to determine the meaning of unfamiliar words.

49 Read Lines 12 and 13.

He baited the line and cast it in with a crafty, hungry look.

He caught a whiting and a bream, he almost caught a whale.

Based on context, the reader can conclude that a whiting is a

- A** special food.
- B** type of fish.
- C** kind of fishing hook.
- D** small animal.

Reporting Category: 5 Logic

Performance Indicator: 0701.5.1 Make predictions about the outcome of a given text.

50 Based on events described in the poem, what will the lighthouse keeper probably do the next time he catches a fish?

- F** protect the fish from the herring gull
- G** keep only enough fish to eat that day
- H** divide the fish with the herring gull
- J** eat the fish before he leaves the beach

Go On ►

Reporting Category: 7 Literature

Performance Indicator: 0701.8.3 Distinguish among different genres (e.g., poetry, drama, biography, novel) using their distinguishing characteristics.

51 Which description identifies “The Lighthouse Keeper and the Herring Gull” as a poem?

- A** It has a plot that involves conflict and a solution.
- B** It uses imagery, rhyme, and a regular rhythmical pattern.
- C** It relates a true account of real people, places, and events.
- D** It tells a story about imaginary people, places, and events.

Reporting Category: 7 Literature

Performance Indicator: 0701.8.4 Determine the common characteristics of literary drama, nonfiction, novels, poetry, and short stories.

52 The poem is similar to a short story in that the poem

- F** has a unique setting.
- G** contains dialogue.
- H** is told in first person.
- J** has a conflict.

Reporting Category: 7 Literature

Performance Indicator: 0701.8.7 Identify flashback, foreshadowing, and symbolism within context.

53 The empty bucket at the end of the poem is a symbol of the lighthouse keeper's

- A** hopefulness.
- B** carelessness.
- C** confidence.
- D** boredom.

Reporting Category: 7 Literature

Performance Indicator: 0701.8.8 Analyze the effects of sound (i.e., accent, alliteration, onomatopoeia, repetition, rhyme, internal rhyme) in context.

54 Which sound device does the author use most often in this poem?

- F** accent
- G** onomatopoeia
- H** repetition
- J** rhyme

Go On ►

Reporting Category: 7 Literature

Performance Indicator: 0701.8.9 Identify the kind(s) of conflict present in a literary plot (i.e., person vs. person, person vs. self, person vs. environment, person vs. technology).

55 Which conflict is demonstrated in this poem?

- A** person vs. person
- B** person vs. self
- C** person vs. environment
- D** person vs. technology

Reporting Category: 7 Literature

Performance Indicator: 0701.8.10 Identify and analyze figurative language (i.e., hyperbole, simile, metaphor, personification, pun) within context.

56 Read Line 20.

But his roar of rage at what he saw was heard from Cairns to Perth—

The author uses hyperbole in this sentence to

- F** express the overwhelming emotions of the lighthouse keeper.
- G** emphasize how far away the lighthouse keeper is from other people.
- H** establish how aggressive the herring gull is.
- J** explain how quickly the herring gull reacted.

Reporting Category: 7 Literature

Performance Indicator: 0701.8.11 Recognize and identify words within context that reveal particular time periods and cultures.

57 Which line best suggests that this poem takes place outside the United States?

- A** The lighthouse keeper sat on a rock and a sad, salt tear wept he.
- B** 'I'm tired of biscuits and tins of beef, I want a fish for tea!
- C** He ravelled a string both long and strong from his cozy sea-boot sock;
- D** And he tossed each fish behind him, where they fell in an old tin pail.

Go On ►

Directions

Read the passage. Then answer Numbers 58 through 65.

Sierra Oscar Sierra

by Lynn Murray

1 Outside Eric's bedroom window the January blizzard raged. Treetops swayed dangerously as gusting winds sculpted snow into huge drifts.

2 Eric turned on his ham radio and tuned into a station talking about the weather. An operator was reporting, "The National Weather Service has just issued a heavy snow alert for the Colorado Rocky Mountains at 1 P.M. today. Accumulations of up to two feet of snow are expected."

3 Bored, Eric programmed the receiver to scan different frequencies. If he heard any of his radio friends, he'd contact them. The radio squawked conversation then static as it flipped from frequency to frequency. He heard no familiar voices, though.

4 Then, the radio paused, emitting a series of loud sounds. It continued to cycle through the frequencies, stopping briefly at each one. Eric kept listening. Once more, the radio paused when it located the sounds; then it moved on again.

5 *How odd.*

6 Eric watched the numbers changing rapidly as the radio scanned. When it stopped on the sounds, he read the display: 144.200 MHz.

7 *That's not interference. It's too regular, too rhythmic. . .* Eric jolted to attention. Three short clicks, three long, three short. Morse code!

8 It was an SOS!

9 He couldn't believe it. Answering emergencies had come up on his licensing test, but this was no test. This was real.

10 The distress call repeated itself.

11 Eric grabbed his radio. "This is KC0ZSZ. Go ahead, SOS."

12 A steady stream of Morse code erupted. All the dits and dahs blurred together. Eric could decode only two words—*hurt* and *help*. He felt as if he'd forgotten all his code. For his Technician Plus license, he'd learned to copy five words a minute, but this speed was sonic!

13 *Calm down. Think.* He grabbed a pen and paper, then said, "This is KC0ZSZ. Name's Eric Bailey. I can't copy that fast. Slow down and tell me your location." He concentrated, deciphering one letter at a time until they made words, then phrases: BLACK BEAR ROAD. UP SLIDE MOUNTAIN. MAX K0IDX.



Slide Mountain was ninety miles away! And could this be Mac from the ham-radio club. The burly instructor he has taken classes from? He couldn't forget Mac, the only man he knew with the same name as a semi-truck.

"Where on Black Bear?"

LASE RAVINE. TRUCK OVER EDGE.

"Stay on the radio. I'll send help." Eric bolted to the phone in the living room. The line was dead, probably severed by a falling tree. "No!" he shouted.

"What's wrong?" asked Eric's father, lowering his book.

"Someone on Slide Mountain needs help, and our phone's dead. I need to do something fast."

"That's pretty far," his father said. "He needs help from someone close. There must be another way to get him help."

Eric's mouth dropped open. "I know what to do."

Eric ran back to his room. Outside, the wind moaned, but inside, his radio sat silent. He keyed the mike. "Mac, I'm still trying to get help. I'll need to switch frequencies for a minute. Hang in there."

Mac's code returned garbled.

24 Eric switched to another frequency. He drew in a shaky breath. “HELP. EMERGENCY. KC0ZSZ.”
25 No response. He tried other frequencies. Finally he made contact.
26 “This is KC0WAA,” a man’s voice responded. “What’s the emergency? Go ahead.”
27 “This is Eric—KC0ZSZ. I’ve answered an SOS call—repeat, a Sierra Oscar Sierra call—on another
frequency. My phone line is dead. Can you call for help?”
28 “Yes. What’s the location and problem?”
29 Eric rattled off the information, then added, “Mac’s not responding well anymore. Please hurry.”
30 “Hold on while I call.”
31 Eric’s body felt cold and numb. What was Mac feeling out there in the blizzard?
32 “Eric? Slide Mountain Rescue is on their way with a team and ambulance. They know the place
you’re describing. I’ll monitor this frequency for a while yet. Good luck. KC0WAA—clear.”
33 Eric thanked him and signed off, switching back to 144.200. “Can you hear me, Mac? Help’s coming!
They’re on their way.”
34 There was no reply, only dead air.
35 Eric kept trying and got a slow response from Mac.
36 “You’re doing great,” Eric said. “Keep talking. Stay with me.”
37 Mac responded occasionally, but slower each time.
38 Suddenly the radio crackled.
39 “This is Slide Mountain Rescue. We have Mac McKenzie.”
40 “Yee-haw!” Eric shouted as he punched the air. “How is he?”
41 “He was getting pretty cold, but we arrived in time. Luckily he was able to tap code to you on the
steering wheel. He wants to talk to you.”
42 A barely audible voice asked, “You the Eric Bailey from ham-radio class in Leadville?”
43 “Yes, sir.”
44 “Great rescue, son.”
45 “Thanks. Great lessons, Mr. McKenzie.”
46 “Seventy-three, Eric.”
47 “Best regards to you, too,” Eric said. “Get better soon.”

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Reporting Category: 2 Vocabulary

Performance Indicator: 0701.1.17 Use context clues and background knowledge of roots and affixes to determine the meaning of multi-meaning words.

58 Read this excerpt from Paragraph 13.

He concentrated, deciphering one letter at a time until they made words, then phrases . . .

In the sentence above, the underlined word most likely means

- F** writing carefully.
- G** sounding out.
- H** taking slowly.
- J** understanding meaning.

Reporting Category: 5 Logic

Performance Indicator: 0701.5.3 Identify stated or implied cause-effect relationships.

59 According to the passage, what causes Eric to change the radio channel?

- A** He is unable to contact his friends.
- B** His home phone line does not work.
- C** He is unable to write down the message.
- D** His father will not allow him to help.

Go On ►

Reporting Category: 7 Literature

Performance Indicator: 0701.8.1 Demonstrate an understanding of the basic elements of plot: exposition, rising action, climax, falling action, resolution/denouement.

60 Choose the paragraph from the passage that best shows the climax.

- F** Paragraph 7
- G** Paragraph 17
- H** Paragraph 25
- J** Paragraph 41

Reporting Category: 7 Literature

Performance Indicator: 0701.8.2 Identify the author's point of view (i.e., first person, third-person objective, third-person limited, third-person omniscient).

61 The reader knows this passage is told from a third-person limited point of view because

- A** Mac tells about Eric rescuing him in his own voice.
- B** a narrator explains the details of Mac's accident without providing any feelings.
- C** Eric's thoughts and feelings about Mac's accident are explained by Eric.
- D** a narrator reveals only Eric's thoughts about rescuing Mac.

Reporting Category: 7 Literature

Performance Indicator: 0701.8.5 Identify the stated or implied theme of a literary text.

62 Which sentence best states the theme of the passage?

- F** Technology isolates people from the rest of the world.
- G** By utilizing resources, people are able to overcome challenges.
- H** Nature is an unpredictable force that people take for granted.
- J** By making friends, people are able to share joint interests.

Reporting Category: 7 Literature

Performance Indicator: 0701.8.6 Identify how the author reveals character (i.e., what the author tells us, what the characters say about him or her, what the character does, what the character says, what the character thinks).

63 In the passage, the character of Mac is best revealed by what

- A** he says.
- B** other characters say about him.
- C** he thinks.
- D** the author tells the reader.

Go On ►

Reporting Category: 7 Literature

Performance Indicator: 0701.8.9 Identify the kind(s) of conflict present in a literary plot (i.e., person vs. person, person vs. self, person vs. environment, person vs. technology).

64 What is Eric's main conflict?

- F** person vs. person
- G** person vs. self
- H** person vs. environment
- J** person vs. technology

Reporting Category: 7 Literature

Performance Indicator: 0701.8.12 Identify the author's purpose for writing.

65 The author wrote this passage most likely to

- A** entertain the reader with a tale of a rescue mission.
- B** persuade the reader to visit the Rocky Mountains.
- C** inform the reader about the use of Morse code.
- D** show the reader how a snowstorm affects a town.

Directions

Read and answer Numbers 66 through 85.

Reporting Category: 1 Language

Performance Indicator: 0701.1.4 Identify the correct use of conjunctions (i.e., coordinating, correlative, subordinating) and interjections within context.

66 Read the sentence.

_____ *I have not done laundry in a couple of weeks, I must wear plaid pants with a striped shirt today.*

Which subordinating conjunction belongs on the blank line?

- F** Because
- G** Although
- H** However
- J** Whenever

Go On ►

Reporting Category: 1 Language

Performance Indicator: 0701.1.9 Recognize usage errors occurring within context (i.e., double negatives, troublesome word pairs: {to/to/two, their/there/they're, its/it's, sit/set, lie/lay, affect/effect, sit/set, lie/lay, may/can, leave/let, teach/learn, accept/except, capitol/capital, principle/principal, between/among, rise/raise, stationary/stationery}).

67 Which sentence correctly uses the underlined word?

- A** Except for soccer, Darius has tried all sports offered at school.
- B** I would like to send a note to everyone accept Melissa.
- C** Harold did not know that all of the cast members, accept him, had been told about the surprise.
- D** Should Carmen except the job offer from the local library?

Reporting Category: 1 Language

Performance Indicator: 0701.1.10 Identify the correct use of colons (i.e., in business letters, preceding list of items) within context.

68 Read the sentence.

The teacher suggested that each student bring these items for the field trip water, a sandwich, and a good book.

How should the underlined part of the sentence be revised to correctly use a colon?

- F** suggested that each student bring: these items for the field trip water
- G** suggested that each student bring these items for the field trip: water
- H** suggested that each student: bring these items for the field trip water
- J** suggested that: each student bring these items for the field trip water

Reporting Category: 1 Language

Performance Indicator: 0701.1.11 Identify the correct use of appositives and appositive phrases within context.

69 Which sentence correctly uses an appositive phrase?

- A** The caterpillar, a large one with black spikes scared Paul when it fell from a tree and onto his shirt.
- B** Patti must clean her room the messiest room in the house, before her grandmother arrives for a weeklong visit.
- C** Did you hear that Darius the kid who lives around the block from my house was voted class president?
- D** Missy Truman, one of my favorite basketball players, is currently playing for a team in Minnesota.

Reporting Category: 1 Language

Performance Indicator: 0701.1.12 Identify the correct use of infinitives and infinitive phrases within context.

70 Read this sentence.

We hoped to be invited again, so we promised to speak respectfully, to walk and not to run, and to properly dispose of trash.

Which part of the sentence uses an infinitive incorrectly?

- F** to be invited
- G** promised to speak respectfully
- H** to walk and
- J** and to properly dispose

Go On ►

Reporting Category: 1 Language

Performance Indicator: 0701.1.13 Select the appropriate use of underlining/italicizing with titles, specific words, numbers, and letters.

71 Which sentence uses italics correctly?

- A** The *word* capital has many meanings.
- B** The *Titanic* is one of the most well-known ships that tragically sank.
- C** All her sweaters are monogrammed with *JWM*.
- D** I attended the *Learning and Technology* meeting at school last night.

Reporting Category: 1 Language

Performance Indicator: 0701.1.14 Form singular and plural possessives using apostrophes correctly.

72 Which sentence is written correctly?

- F** The students project's will be displayed in the cafeteria.
- G** Teds' book report included an excellent summary of the plot.
- H** The children's toys were scattered throughout the room.
- J** Elections for the Spanish clubs officer's will be held next month.

Reporting Category: 1 Language

Performance Indicator: 0701.1.15 Choose the correct use of quotation marks and commas (i.e., in direct quotations, with explanatory material within the quote, proper use with end marks).

73 Which sentence is correctly written using quotation marks?

- A** “What will we learn today”? one student asked, entering the classroom.
- B** “Our goal for today,” Mr. Jiménez announced, “is to read Chapter 8.”
- C** “I think that’s the chapter about molecules, Trish told her friend Erik.”
- D** “I hope we get to do some experiments”, Erik replied.

Reporting Category: 2 Vocabulary

Performance Indicator: 0701.1.22 Identify commonly used foreign words and phrases (i.e., RSVP, *déjà vu*, *faux pas*, *du jour*, *bon voyage*).

74 In a restaurant, the soup offered or served for the day is called the soup

- F** *bon voyage*.
- G** *déjà vu*.
- H** *du jour*.
- J** *faux pas*.

Go On ►

75 Michael is preparing to talk to his science class about his pet ferret. He plans to address the following topics.

1. *meeting the pet's dietary needs*
2. *choosing a pet by studying the available options*
3. *preparing the pet's living space for safety and comfort*
4. *learning how to care for the pet through classes and reading*

In what order should Michael present these topics?

- A** 1, 3, 4, 2
- B** 2, 4, 3, 1
- C** 3, 4, 2, 1
- D** 4, 2, 1, 3

Reporting Category: 4 Communication and Media

Performance Indicator: 0701.2.7 Select the most appropriate behaviors for participating productively in a team (e.g., ask primarily relevant questions that move the team toward its goal and contribute to the topic of discussion, articulate the goals that have been provided for the team work and ask clarifying questions, come to agreement by seeking consensus or following the majority).

76 Once a team has been put together and assigned a task, what is the first step that the team should do to begin its task?

- F** outline the assigned goals to clarify the assignment
- G** contribute individually to the assigned work
- H** work together to determine how each team member should proceed
- J** assign roles for each team member

Reporting Category: 3 Writing and Research

Performance Indicator: 0701.3.13 Select the most appropriate format for writing a specific work-related text (i.e., instructions, directions, letters, memos, e-mails, reports).

77 Leo will assume Troy's responsibilities at the mail desk while Troy is out of town. What is the best tool for Troy to use in training Leo to do this job?

- A** a detailed report
- B** a report to their supervisor
- C** a lengthy office memo
- D** a list of instructions

Go On ►

- 78** A student created these notes after researching how to maintain a healthy diet. Read the notes and answer the question.

	Choosing a Healthful Diet
	• The United States Department of Agriculture (USDA) recommends that people eat a Recommended Daily Allowance (RDA) of food to maintain a healthful diet.
	• There are five food groups: milk, vegetable, meat, fruit, and bread.
	• Yogurt is a food from the milk group that is good for digestion.
	• The USDA suggests that each person should eat a specific number of servings from each food group to create balanced meals throughout the day.
	• Avoiding fats, oils, and sweets is recommended.

If the student were to write a report on this topic, which fact in the notes should not be included?

- F** The United States Department of Agriculture (USDA) recommends that people eat a Recommended Daily Allowance (RDA) of food to maintain a healthful diet.
- G** Yogurt is a food from the milk group that is good for digestion.
- H** The USDA suggests that each person should eat a specific number of servings from each food group to create balanced meals throughout the day.
- J** Avoiding fats, oils, and sweets is recommended.

Reporting Category: 6 Informational Text

Performance Indicator: 0701.6.5 Choose the correct order of a set of instructions.

79 Read these steps for washing dishes.

1. *Run warm water in the sink and add detergent.*
2. *Put the dirty dishes into the sink.*
3. *Use the dish cloth to wipe dishes clean.*
4. _____
5. *Dry the dishes and put them away.*

Which step belongs on Line 4?

- A** Separate the dishes by type.
- B** Rinse the dishes with clean water.
- C** Save the dirtiest dishes for last.
- D** Soak the dishes in cold water.

Reporting Category: 4 Communication and Media

Performance Indicator: 0701.7.1 Choose the most appropriate medium for a prescribed purpose and audience.

80 Jasmine is giving a report on her favorite author, Christopher Paul Curtis. Which of these would best suit her purpose for convincing her classmates to read his work?

- F** a photograph of the author and a book he wrote
- G** a list of the awards that the author has earned for his writing
- H** a video recording of an interview with the author
- J** an outline of the latest book by the author

Go On ►

Reporting Category: 4 Communication and Media

Performance Indicator: 0701.7.3 Identify the purpose of a medium (i.e., to inform, to persuade, to entertain, to describe).

81 A television commercial shows a video of a remote control car climbing up stairs and over large rocks, as well as jumping long distances over ramps. What is the most likely purpose of the commercial?

- A** to inform viewers about the variety of uses of the remote control car
- B** to describe the strength of the remote control car
- C** to entertain viewers with the exciting abilities of the remote control car
- D** to persuade viewers to buy the remote control car for its interesting features

Reporting Category: 4 Communication and Media

Performance Indicator: 0701.7.4 Draw an inference from a non-print medium.

82 Use the image below to answer the question.



What can the reader tell about the subjects of the image?

- F** They are selling homemade instruments.
- G** They are performing a community service.
- H** They are gathering together for a shared interest.
- J** They are playing for a school audience.

83 Look at the picture.



© Jill Fromer/Stockphoto #1816818

What would be an appropriate caption for a company selling paper products?

- A** Pet ownership demands careful attention to the actions of the pet.
- B** Dogs are smarter than many people imagine.
- C** Even your dog understands the value of a personal letter.
- D** Please clean up after your pets.

Reporting Category: 4 Communication and Media

Performance Indicator: 0701.7.6 Identify the type of conflict (i.e., person vs. person, person vs. self, person vs. environment, person vs. technology) represented in a non-print medium.

84 Look at the picture below.



What type of conflict is shown in the picture?

- F** person vs. environment
- G** person vs. self
- H** person vs. person
- J** person vs. technology

Reporting Category: 7 Literature

Performance Indicator: 0701.8.3 Distinguish among different genres (e.g., poetry, drama, biography, novel) using their distinguishing characteristics.

85 What characteristic do nonfiction and poetry have in common?

- A** They have a plot.
- B** They have major and minor characters.
- C** They have conflict.
- D** They have a tone that reflects the author's attitude.

STOP 

Mathematics



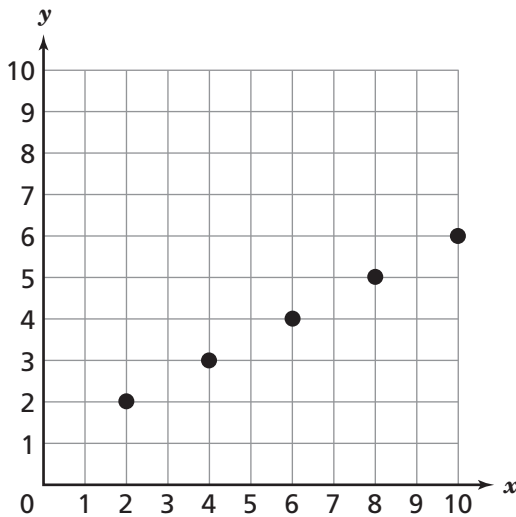
Reporting Category: 1 Mathematical Processes

Performance Indicator: 0706.1.1 Use proportional reasoning to solve mixture/concentration problems.

1 A recipe for making 4 cups of soup requires 3 cups of water. At this rate, how many cups of water are required to make 24 cups of soup?

- A** 6 cups
- B** 18 cups
- C** 32 cups
- D** 96 cups

- 2** The graph shows five points of a relation.



Which equation best represents this relation?

F $y = x - 1$

G $y = 2x - 2$

H $y = \frac{1}{2}x + 1$

J $y = \frac{1}{2}x + 7$

- 3** The table shows values of w and t .

w	t
-2	5
0	1
2	5
4	17

Which equation represents the pattern shown by the data in the table?

- A** $t = 1 - 2w$
- B** $t = 3w - 1$
- C** $t = w^2 + 1$
- D** $t = (w + 1)^2$

0706.1.3 Recognize whether information given in a table, graph, or formula suggests a directly proportional, linear, inversely proportional, or other nonlinear relationship.

4

Which best describes the relationship between the input values and the output values shown in the table below?

Input	Output
3	$\frac{1}{6}$
5	$\frac{1}{10}$
7	$\frac{1}{14}$
9	$\frac{1}{18}$

F inversely proportional

G directly proportional

H exponential

J linear

- 5** The scale drawing shows the location of Washington, D.C., and the capitals of several nearby states.



According to the scale drawing, which city is approximately 250 miles from Richmond?

- A** Washington, D.C.
- B** Charleston
- C** Columbia
- D** Raleigh

Reporting Category: 2 Number and Operations

Performance Indicator: 0706.2.1 Simplify numerical expressions involving rational numbers.

6 What is the value of this expression?

$$1\frac{3}{5} + 2.4 \div \frac{4}{5}$$

F $3\frac{1}{5}$

G 4

H $4\frac{3}{5}$

J 5

Reporting Category: 2 Number and Operations

Performance Indicator: 0706.2.2 Compare rational numbers using appropriate inequality symbols.

7 Which inequality is true?

A $0.35 < \frac{8}{25}$

B $0.45 < \frac{11}{25}$

C $0.55 < \frac{14}{25}$

D $0.65 < \frac{16}{25}$

Go On ►

Reporting Category: 2 Number and Operations

Performance Indicator: 0706.2.2 Compare rational numbers using appropriate inequality symbols.

8 Which value of m does not make this inequality true?

$$0.625 \leq m < 0.875$$

F $\frac{5}{8}$

G $\frac{7}{10}$

H $\frac{8}{10}$

J $\frac{7}{8}$

9 At 8:00 A.M. on Monday, the outside temperature was 11 degrees below freezing. At 3:00 P.M. on Monday, the outside temperature was 16 degrees above freezing. Which integer best represents the change in temperature from 8:00 A.M. to 3:00 P.M. on Monday?

- A** -27
- B** -5
- C** 5
- D** 27

Reporting Category: 2 Number and Operations

Performance Indicator: 0706.2.6 Express the ratio between two quantities as a percent, and a percent as a ratio or fraction.

10 Mr. Smith asked his students whether they prefer to go to a museum or the zoo for a field trip. He found that 35% of the students prefer to go to a museum, 45% prefer to go to the zoo, and the rest have no preference. What is the ratio of students who have no preference to the students who prefer to go to the museum?

F 1:4

G 1:5

H 4:7

J 4:9

Reporting Category: 2 Number and Operations

Performance Indicator: 0706.2.7 Use ratios and proportions to solve problems.

11 The price for 8 rolls of paper towels is \$5.36. Which of the following represents the same price per roll?

A 3 rolls for \$2.01

B 2 rolls for \$2.68

C 7 rolls for \$4.36

D 12 rolls for \$10.72

12 What is the value of $7x^2y$, when $x = \frac{3}{5}$ and $y = \frac{5}{7}$?

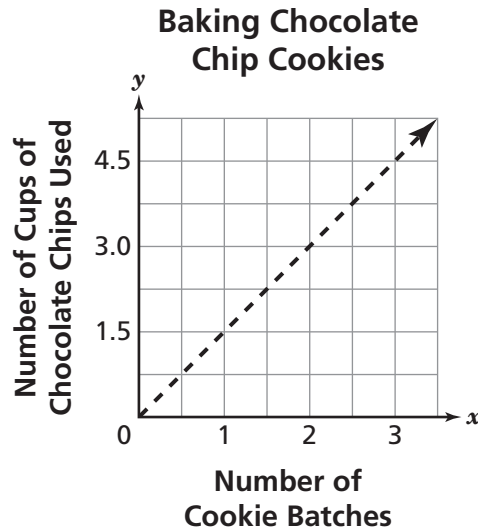
F $1\frac{4}{5}$

G $2\frac{1}{7}$

H 3

J 9

- 13** Ms. Jimenez baked chocolate chip cookies for a bake sale. The graph shows the relationship between the number of cookie batches baked and the number of cups of chocolate chips used.



What does the slope of the line represent?

- A** the total number of cookie batches Ms. Jimenez baked
- B** the total number of cups of chocolate chips Ms. Jimenez used
- C** the number of cookie batches per cup of chocolate chips used
- D** the number of cups of chocolate chips used per cookie batch

Reporting Category: 3 Algebra

Performance Indicator: 0706.3.5 Represent proportional relationships with equations, tables and graphs.

14 Which equation does not describe an inverse proportional relationship?

F $x = \frac{16}{y}$

G $y = \frac{20}{x}$

H $xy = 25$

J $y = \frac{7x}{10}$

Reporting Category: 3 Algebra

Performance Indicator: 0706.3.6 Solve linear equations with rational coefficients symbolically or graphically.

15 What value of p makes this equation true?

$$\frac{4}{5}p - 8 = 20$$

A $9\frac{3}{5}$

B $22\frac{2}{5}$

C 33

D 35

Go On ►

Reporting Category: 3 Algebra

Performance Indicator: 0706.3.7 Translate between verbal and symbolic representations of real-world phenomena involving linear equations.

- 16** An art teacher had a total of t markers. He gave an equal number of markers to each of 18 students and had 16 markers left over. Which equation could be used to find n , the number of markers each student received?

F $t = 18n$

G $t = 34n$

H $t = 18n + 16$

J $t = 16n + 18$

Reporting Category: 3 Algebra

Performance Indicator: 0706.3.8 Solve contextual problems involving two-step linear equations.

- 17** Carolyn spent \$40.00 to purchase 1 adult ticket and 5 child tickets for a movie. The price of the adult ticket was \$7.50. The following equation can be used to find p , the price of each child ticket.

$$5p + 7.5 = 40$$

What was the price of each child ticket?

A \$3.20

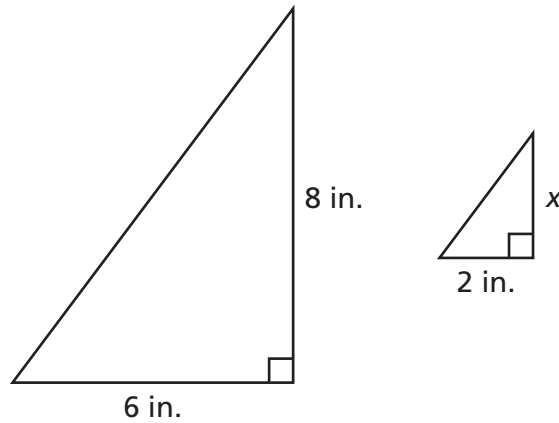
B \$6.50

C \$6.70

D \$9.50

18

The two similar triangles shown are patterns used to create a design on a jacket.



What is the value of x , the height of the smaller triangle, in inches?

- F** $1\frac{1}{2}$ inches
- G** $2\frac{2}{3}$ inches
- H** 4 inches
- J** 6 inches

- 19** Two squares are similar. The area of the smaller square is 12 square inches. The area of the larger square is 768 square inches. What is the ratio of the side length of the smaller square to the side length of the larger square?

A $\frac{1}{64}$

B $\frac{1}{32}$

C $\frac{1}{8}$

D $\frac{1}{4}$

Reporting Category: 5 Data Analysis, Statistics and Probability

Performance Indicator: 0706.5.3 Calculate and interpret the mean, median, upper-quartile, lower-quartile, and inter-quartile range of a set of data.

20 What is the upper quartile of the numbers listed below?

6, 47, 54, 15, 42, 41, 7, 39, 36, 41, 43

F 28

G 41

H 43

J 48

Reporting Category: 5 Data Analysis, Statistics and Probability

Performance Indicator: 0706.5.4 Use theoretical probability to make predictions.

21 Each letter of the following name is written on a different card, and the cards are placed in a bag.

M U R F R E E S B O R O

One card is randomly selected from the bag. What is the probability that the selected card shows the letter R?

A $\frac{1}{12}$

B $\frac{1}{6}$

C $\frac{1}{4}$

D $\frac{1}{3}$

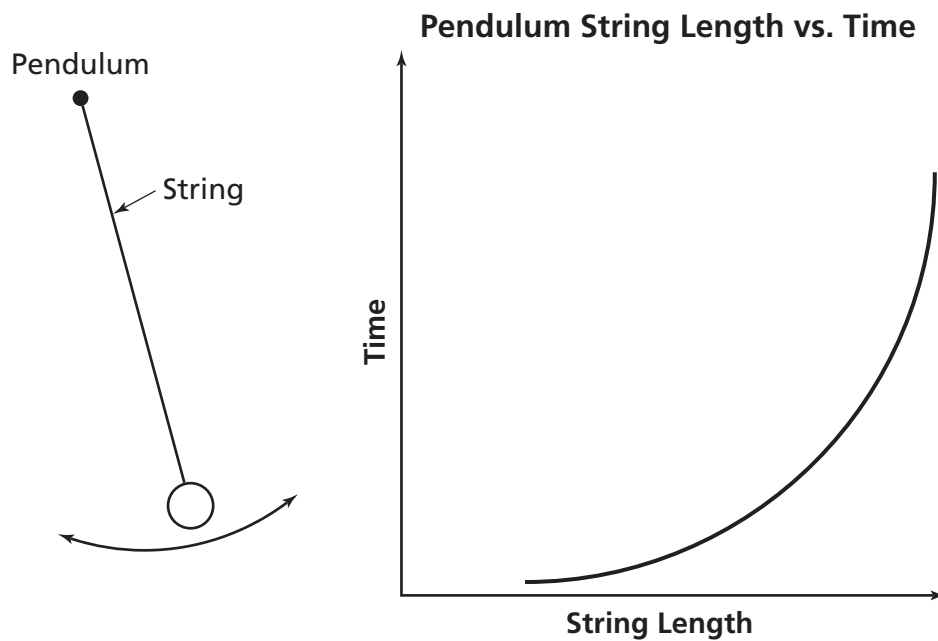
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Reporting Category: INQUIRY AND TECHNOLOGY & ENGINEERING

Performance Indicator: 0707.INQ.4 Draw a conclusion that establishes a cause and effect relationship supported by evidence.

- 1** Students investigated pendulums. The students plotted a graph to show the relationship between different lengths of the string and the time it took the pendulum to complete one full swing.



Which conclusion is best supported by the graph?

- A** The shorter the string, the fewer times the pendulum swings.
- B** The time it takes the pendulum to swing back and forth decreases over a period of time.
- C** The time it takes the pendulum to swing back and forth is unpredictable based on the length of the string.
- D** As the length of the string increases, the pendulum takes longer to swing back and forth each time.

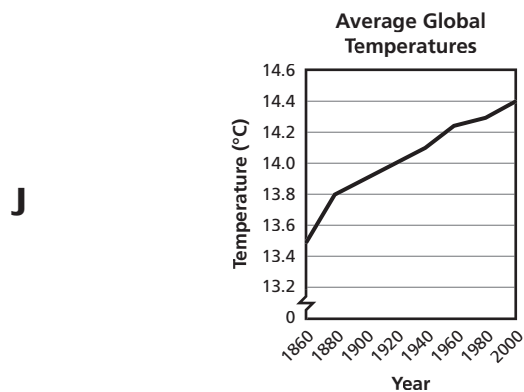
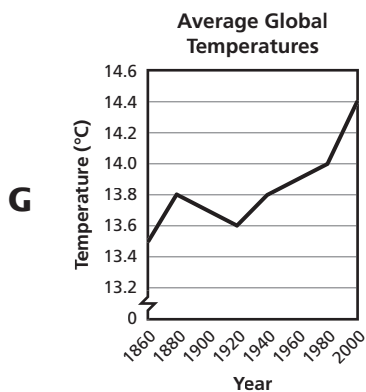
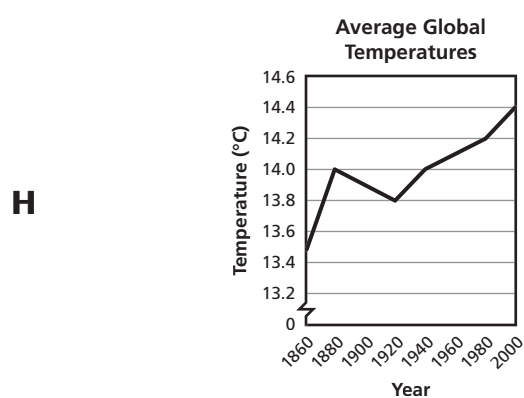
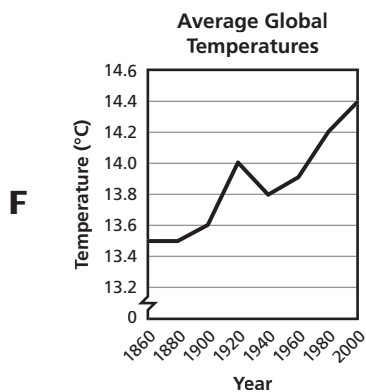
2

Students are studying average global temperatures over time. They review the data table below.

Average Global Temperatures

Year	Temperature (°C)
1860	13.5
1880	13.8
1900	13.7
1920	13.6
1940	13.8
1960	13.9
1980	14.0
2000	14.4

Which graph correctly displays these data?



Reporting Category: INQUIRY AND TECHNOLOGY & ENGINEERING

Performance Indicator: 0707.TE.2 Evaluate a protocol to determine if the engineering design process was successfully applied.

3 Technicians plan to develop a new type of keyboard that will have alphabet letters in different positions from a standard keyboard. Which will best help the technicians decide if the new keyboard is an improvement over the standard one?

- A** asking people their opinions of how they like standard keyboards
- B** analyzing the problems that people have using standard keyboards
- C** determining how much it will cost to make a new keyboard
- D** comparing the speeds at which people type on each style of keyboard

Reporting Category: INQUIRY AND TECHNOLOGY & ENGINEERING

Performance Indicator: 0707.TE.4 Differentiate between adaptive and assistive engineered products.

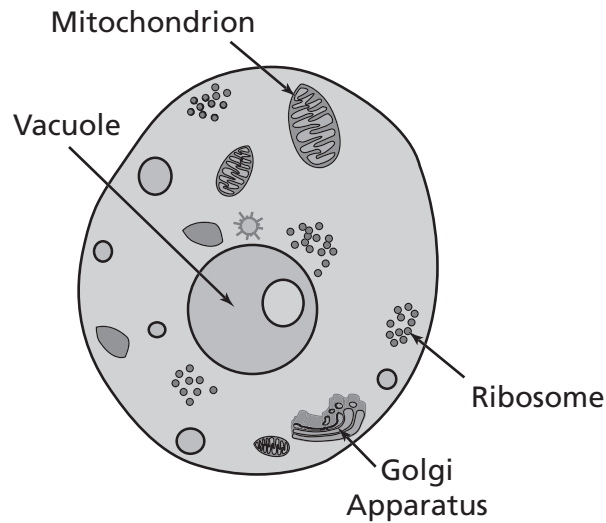
4 A scientist is unable to speak or move most of the muscles in his body. This scientist uses his cheek to push buttons on a type of keyboard that translates the words into a computerized voice. Which of these best describes the scientist's device?

- F** assistive, because the device makes the scientist famous
- G** assistive, because the device enables the scientist to communicate
- H** adaptive, because the scientist can use the device for other tasks
- J** adaptive, because the scientist can still move some parts of his body

5 Which best describes the function of a ribosome?

- A** storing waste products
- B** manufacturing proteins
- C** digesting food particles
- D** providing support

- 6** A student draws and labels the parts of an animal cell, as shown below.



What organelle is labeled incorrectly?

- F** Mitochondrion
- G** Golgi Apparatus
- H** Vacuole
- J** Ribosome

Reporting Category: LIFE SCIENCE 1: Cells, Flow of Matter & Energy

Performance Indicator: 0707.1.2 Interpret a chart to explain the integrated relationships that exist among cells, tissues, organs, and organ systems.

- 7** The chart shows some levels of organization in an organism.

Cell → Tissue → Organ → ? → Organism

Which term best completes the chart?

- A** Organelle
- B** Organ System
- C** Muscle
- D** Chemical

Reporting Category: LIFE SCIENCE 1: Cells, Flow of Matter & Energy

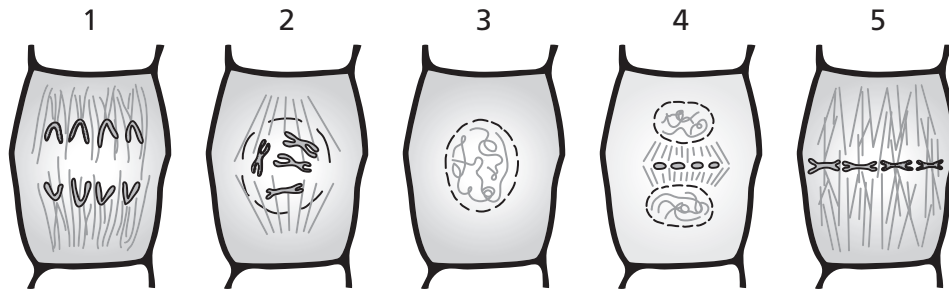
Performance Indicator: 0707.1.3 Explain the basic functions of a major organ system.

- 8** Which organ system is correctly matched with its main function?

- F** The excretory system defends the body from disease-causing organisms.
- G** The nervous system controls body responses to the environment.
- H** The skeletal system distributes energy throughout the body.
- J** The digestive system removes waste products from the body.

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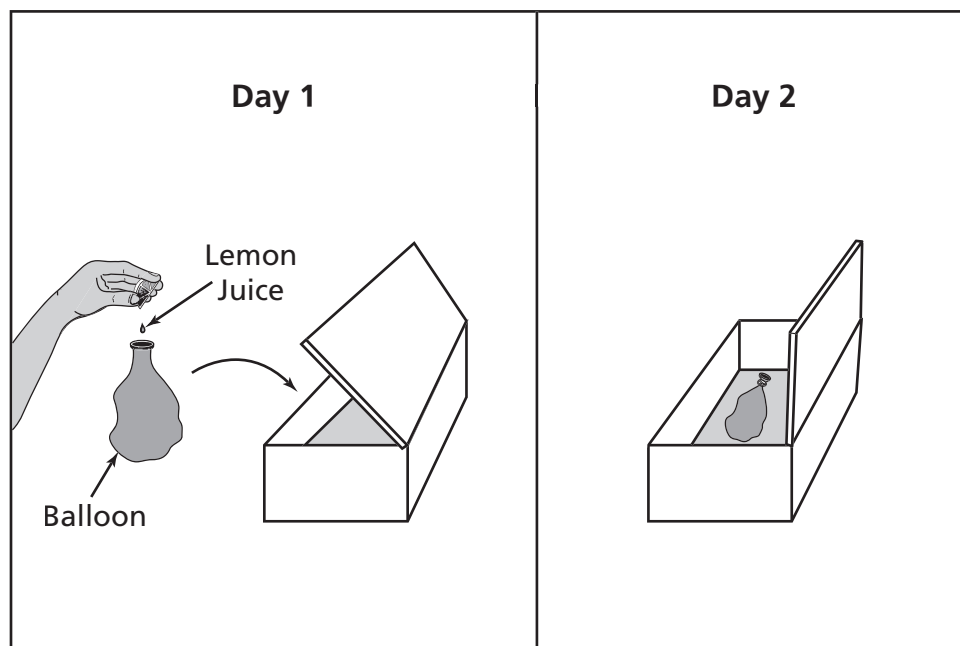
- 9** Diagrams of a plant cell dividing are shown out of sequence.



What is the correct sequence of plant cell division?

- A** 3, 2, 5, 1, 4
- B** 4, 3, 2, 1, 5
- C** 3, 4, 5, 1, 2
- D** 5, 1, 2, 4, 3

- 10** A student put a few drops of lemon juice into an uninflated balloon. The student tied a knot in the balloon, placed it in a shoebox and covered it with a lid.



The following day, the student opened the box and was able to smell lemon in the box. Through what process were molecules able to pass through the balloon?

- F** respiration
- G** fermentation
- H** diffusion
- J** radiation

Reporting Category: INQUIRY AND TECHNOLOGY & ENGINEERING

Performance Indicator: 0707.INQ.2 Select tools and procedures needed to conduct a moderately complex experiment.

11 Students were studying how temperature affects water movement. The students added drops of food coloring to different temperatures of water. They measured the rates at which the food coloring spread throughout the water. Which tools would best help the students complete their investigation?

- A** beaker, thermometer, stopwatch
- B** meter stick, thermometer, beaker
- C** spring scale, thermometer, stopwatch
- D** graduated cylinder, thermometer, balance

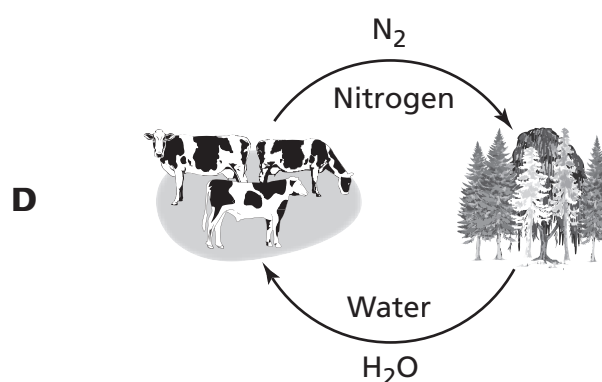
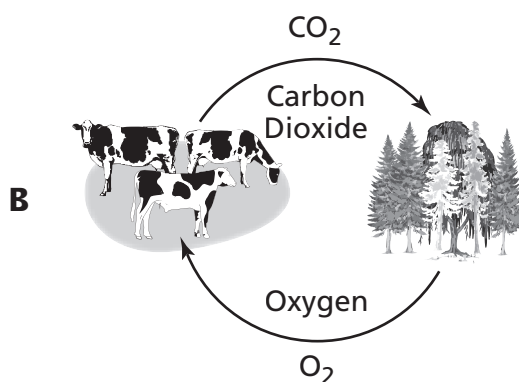
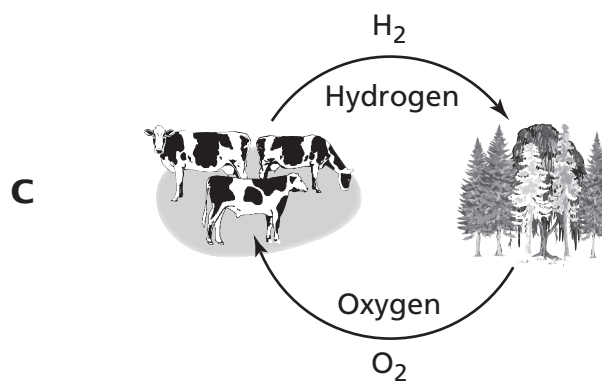
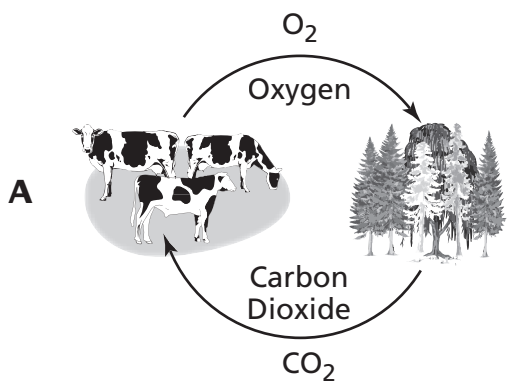
Reporting Category: LIFE SCIENCE 1: Cells, Flow of Matter & Energy

Performance Indicator: 0707.3.1 Compare the chemical compounds that make up the reactants and products of photosynthesis and respiration.

12 During photosynthesis, carbon dioxide (CO_2) and water (H_2O) react in the presence of sunlight to produce

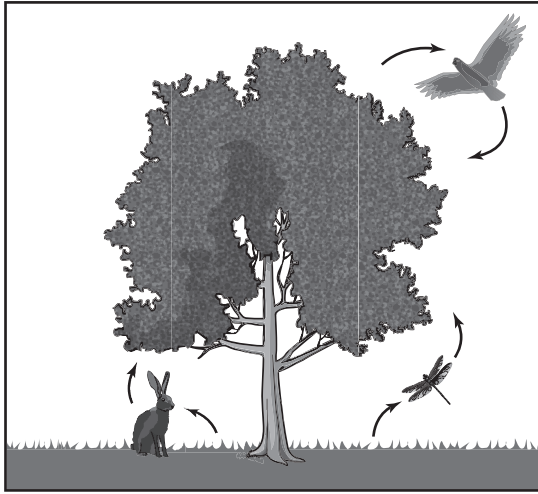
- F** oxygen (O_2) and carbon (C).
- G** glucose ($\text{C}_6\text{H}_{12}\text{O}_6$) and carbon monoxide (CO).
- H** glucose ($\text{C}_6\text{H}_{12}\text{O}_6$) and oxygen (O_2).
- J** hydrogen (H_2) and oxygen (O_2).

13 Which diagram best represents an exchange of gases between plants and animals?



14

The arrows in the diagram represent the exchange of gases between different organisms and the environment.



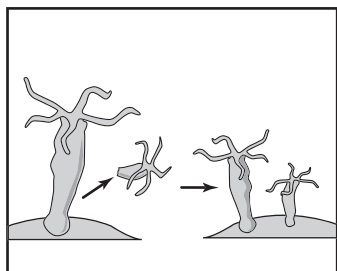
Which of the organisms must take in carbon dioxide to survive?

- F** bird
- G** insect
- H** tree
- J** rabbit

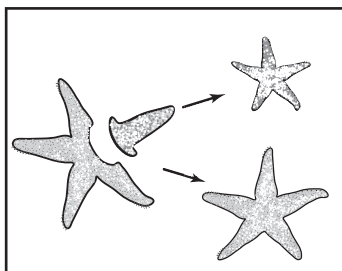
Reporting Category: LIFE SCIENCE 2: Heredity

Performance Indicator: 0707.4.1 Classify methods of reproduction as sexual or asexual.

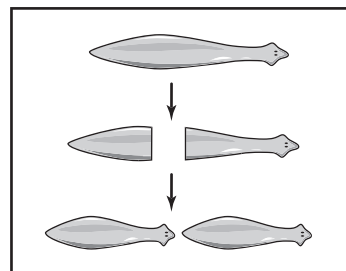
15 The diagrams represent the way that three different organisms reproduce.



Hydra



Sea Star



Planaria

Which of these classifies the reproductive method of all the organisms shown above?

- A** segmentation
- B** budding
- C** asexual reproduction
- D** sexual reproduction

Reporting Category: LIFE SCIENCE 2: Heredity

Performance Indicator: 0707.4.2 Match flower parts with their reproductive functions.

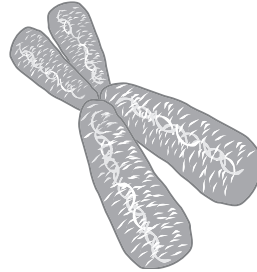
16 Which parts of a flower are most likely to attract pollinators?

- F** sepals
- G** petals
- H** anthers
- J** pistils

Go On ►

17 The image shows a chromosome.

Chromosome



What is located on the chromosome?

- A** cells
- B** genes
- C** enzymes
- D** organelles

Performance Indicator: 0707.4.4 Interpret a Punnett square to predict possible genetic combinations passed from parents to offspring during sexual reproduction.

- 18** In pea plants, tall plants (T) are dominant to short plants (t). The cross of two heterozygous tall plants is shown in the Punnett square below.

	T	t
T		
t		

What ratio describes the most probable phenotypes resulting from this cross?

- F** 4 tall : 0 short
- G** 3 tall : 1 short
- H** 2 tall : 2 short
- J** 1 tall : 3 short

Performance Indicator: 0707.7.1 Use a table of physical properties to classify minerals.

- 19** Students were observing a green, odorless mineral, with no visible crystals. The mineral was very soft, with a slick feel. They compared its characteristics to the table below.

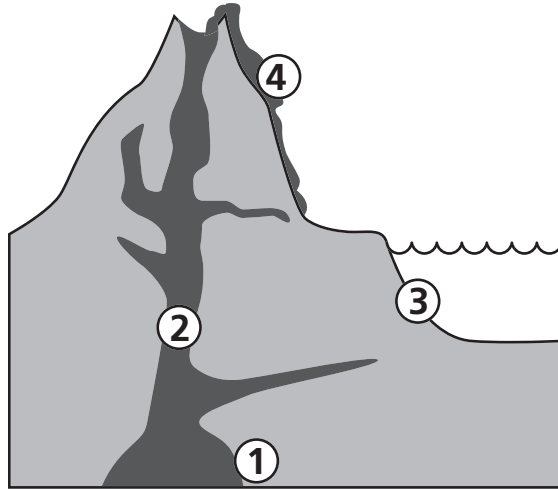
Mineral Characteristics

Mineral	Most Common Colors	Hardness	Other Common Characteristics
Talc	Gray, green, white, silver	1	Soapy feel
Sulfur	Yellow, yellow-brown	1.5	Greasy feel, mild rotten egg smell
Halite	Colorless, white, pink, yellow, gray	2	Salty taste
Quartz	All colors	7	Six-sided prism-shaped crystal

Which of these were the students most likely observing?

- A** Talc
- B** Sulfur
- C** Halite
- D** Quartz

- 20** Different locations are labeled on the diagram of the volcano.



Where would the most metamorphic rocks likely be located?

- F** 1
- G** 2
- H** 3
- J** 4

Reporting Category: EARTH AND SPACE SCIENCE: The Earth

Performance Indicator: 0707.7.3 Identify the major processes that drive the rock cycle.

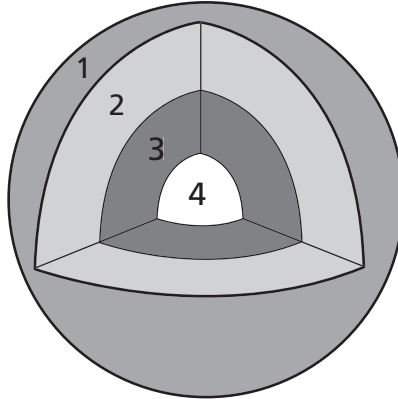
21 Which best describes one way igneous rocks form?

- A** Sedimentary rocks erode.
- B** Sedimentary rocks are compacted.
- C** Metamorphic rocks are melted, then cooled.
- D** Metamorphic rocks are deposited and cemented.

Reporting Category: EARTH AND SPACE SCIENCE: The Earth

Performance Indicator: 0707.7.4 Differentiate among the characteristics of the earth's three layers.

22 A cross section of Earth is shown below.



Which layer of Earth is made mostly of liquid metal?

- F** 1
- G** 2
- H** 3
- J** 4

Reporting Category: EARTH AND SPACE SCIENCE: The Earth

Performance Indicator: 0707.7.5 Recognize that lithospheric plates on the scale of continents and oceans continually move at rates of centimeters per year.

23 The Himalaya Mountains formed from a collision of the Indo-Australian plate with the Eurasian plate. Which best approximates the rate of movement of the Indo-Australian plate?

- A** 0.67 millimeter per year
- B** 6.7 centimeters per year
- C** 6.7 meters per year
- D** 67 meters per year

Reporting Category: EARTH AND SPACE SCIENCE: The Earth

Performance Indicator: 0707.7.6 Describe the relationship between plate movements and earthquakes, mountain building, volcanoes, and sea floor spreading.

24 Which geological feature was most likely formed when two lithospheric plates collided?

- F** Lake Michigan
- G** Grand Canyon
- H** Mississippi River delta
- J** Sierra Madre mountain range

Go On ►

Reporting Category: EARTH AND SPACE SCIENCE: The Earth

Performance Indicator: 0707.7.7 Analyze and evaluate the impact of man's use of earth's land, water, and atmospheric resources.

25 Which is the most likely effect of a rise in global temperatures caused by human activities?

- A** rising sea levels
- B** more earthquakes
- C** fewer tropical storms
- D** increased soil erosion

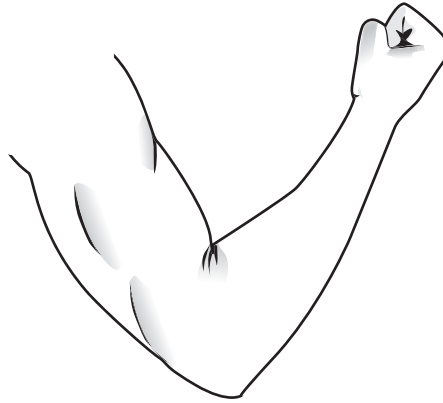
Reporting Category: INQUIRY AND TECHNOLOGY & ENGINEERING

Performance Indicator: 0707.TE.3 Distinguish between the intended benefits and the unintended consequences of a new technology.

26 Which of these is the most likely unintended consequence of using ethanol made from corn as a replacement for gasoline in automobile engines?

- F** a reduction in the use of nonrenewable fuels
- G** lower emissions of sulfur and nitrogen compounds in auto exhaust
- H** a decrease in the amount of farmland available to produce food crops
- J** lower fuel costs for consumers

- 27** A portion of a human arm works as a simple machine.



Which simple machine is most like a human arm?

- A** a lever
- B** a wedge
- C** an inclined plane
- D** a screw

Reporting Category: PHYSICAL SCIENCE: Motion

Performance Indicator: 0707.11.2 Determine the amount of force needed to do work using different simple machines.

28 Use the equation below to solve the problem.

$$\text{Force (} F \text{)} = \text{Work (} w \text{)} \div \text{Distance (} d \text{)}$$

How much force was applied to a box that required 45 joules of work to push it up a 3-meter-long ramp?

- F** 15 newtons
- G** 42 newtons
- H** 48 newtons
- J** 135 newtons

Reporting Category: PHYSICAL SCIENCE: Motion

Performance Indicator: 0707.11.3 Apply proper equations to solve basic problems pertaining to distance, time, speed, and velocity.

29 Use the equation below to solve the problem.

$$s = d \div t$$

A student rode a bicycle 15 miles in 1.5 hours. What was the student's average speed?

- A** 10.0 miles per hour
- B** 13.5 miles per hour
- C** 16.5 miles per hour
- D** 22.5 miles per hour

Reporting Category: INQUIRY AND TECHNOLOGY & ENGINEERING

Performance Indicator: 0707.INQ.5 Identify a faulty interpretation of data that is due to bias or experimental error.

30 A student rolled a toy car down a ramp and timed how long it took to reach the bottom. After one trial, the student doubled the height of the ramp and added sandpaper to its surface. The student conducted three more trials. After reviewing the data, the student concluded the height of the ramp had no effect on the speed that the car traveled. Which is the most likely reason this conclusion is flawed?

- F** More trials were needed during the investigation.
- G** The student misunderstood how to calculate speed.
- H** A control should have been added to the investigation.
- J** Too many variables were changed during the investigation.

Reporting Category: PHYSICAL SCIENCE: Motion

Performance Indicator: 0707.11.4 Identify and explain how Newton's laws of motion relate to the movement of objects.

31 An equation is shown in the box below.

$$F = ma$$

Which statement best describes the variables in this equation?

- A** An object at rest tends to stay at rest.
- B** For every action there is an equal and opposite reaction.
- C** An object will only accelerate if an unbalanced force acts upon it.
- D** The acceleration of an object depends upon the force acting upon it and its mass.

Go On ►

Reporting Category: PHYSICAL SCIENCE: Motion

Performance Indicator: 0707.11.4 Identify and explain how Newton's laws of motion relate to the movement of objects.

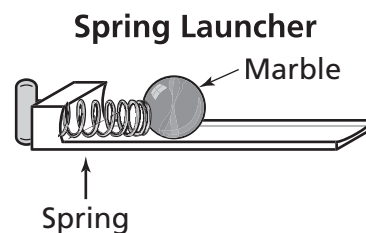
32 Which example best describes Newton's third law of motion?

- F** When a glass slid across a table, it spilled water when it stopped suddenly.
- G** An engine used less work to move a lighter car than when it moved a heavier car.
- H** When a passenger stepped from a boat to the shore, the boat moved away from the shore.
- J** A bowling ball rolled in a straight path when it was thrown towards bowling pins.

Reporting Category: INQUIRY AND TECHNOLOGY & ENGINEERING

Performance Indicator: 0707.INQ.1 Design a simple experimental procedure with an identified control and appropriate variables.

33 Students put a spring launcher on a wooden floor. The students applied different amounts of force on a marble with the spring. They used a meter stick to measure how far the marble rolled.

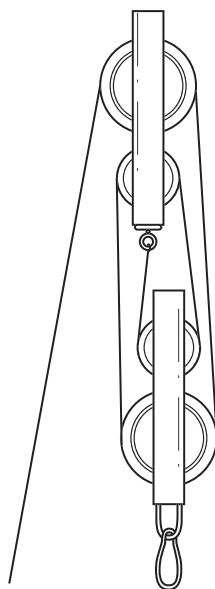


What is the dependent variable in this investigation?

- A** mass of the marble
- B** amount of friction from the floor
- C** amount of stretch in the spring
- D** distance traveled by the marble

- 34** Engineers built a prototype of a new pulley system. They wanted to determine the maximum weight the pulley can lift safely.

Pulley System



Which is the best way for the engineers to test the weight limits of the pulley system?

- F** hang objects with different volumes from the pulleys
- G** hang objects with different shapes from the pulleys
- H** raise objects with increasing densities on the pulleys
- J** raise objects with increasing masses on the pulleys

Reporting Category: PHYSICAL SCIENCE: Motion

Performance Indicator: 0707.11.5 Compare and contrast the different parts of a wave.

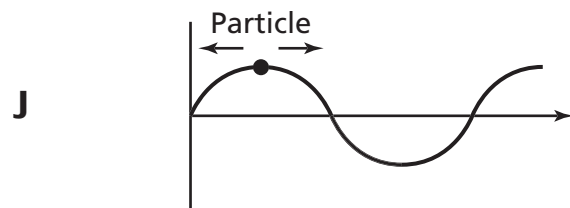
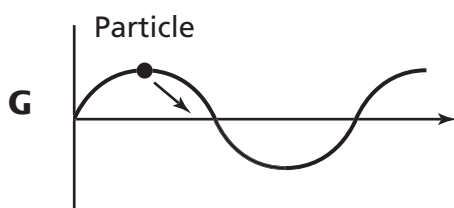
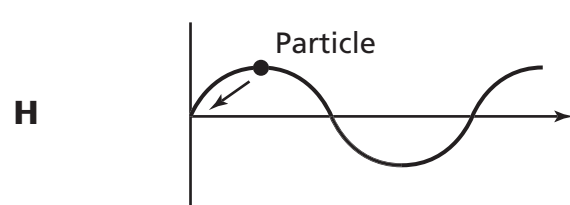
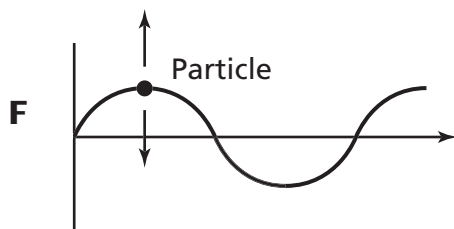
35 As a wavelength decreases, the crests of the wave

- A** become wider.
- B** become shorter.
- C** get closer together.
- D** get farther apart.

Reporting Category: PHYSICAL SCIENCE: Motion

Performance Indicator: 0707.11.6 Differentiate between transverse and longitudinal waves in terms of how they are produced and transmitted.

36 Which diagram best represents particle movement in a transverse wave?



STOP 

Social Studies



Reporting Category: 1 Economics

Performance Indicator: 7.2.1 Recognize basic economic concepts (i.e., imports, exports, barter system, tariffs, closed and emerging markets, supply and demand, inflation, recession, depression).

- 1** A tariff is a tax on
- A** domestic goods.
 - B** personal income.
 - C** private property.
 - D** imported goods.

Reporting Category: 1 Economics

Performance Indicator: 7.2.2 Define renewable and nonrenewable resources.

- 2** Why is wind power defined as a renewable resource?
- F** Wind can change the environment.
 - G** The supply of wind will not run out.
 - H** Wind is used to produce electricity.
 - J** It does not cost anything to use wind power.

Go On ►

Reporting Category: 1 Economics

Performance Indicator: 7.2.4 Interpret economic issues as expressed with maps, tables, diagrams, and charts.

**Selected Agricultural Products Exported from
Tennessee Value (in millions of dollars)**

	2003	2004	2005	2006	2007
Wheat	\$75.3	\$84.2	\$74.0	\$80.0	\$86.2
Soybeans	\$158.5	\$139.5	\$120.2	\$114.0	\$74.5
Tobacco	\$73.9	\$71.5	\$87.5	\$63.4	\$55.5
Meat	\$34.5	\$39.0	\$45.9	\$51.7	\$56.2
Dairy Products	\$1.7	\$2.9	\$3.7	\$3.4	\$4.4

Source: US Dept Ag, Economic Research Service,
State Export Data

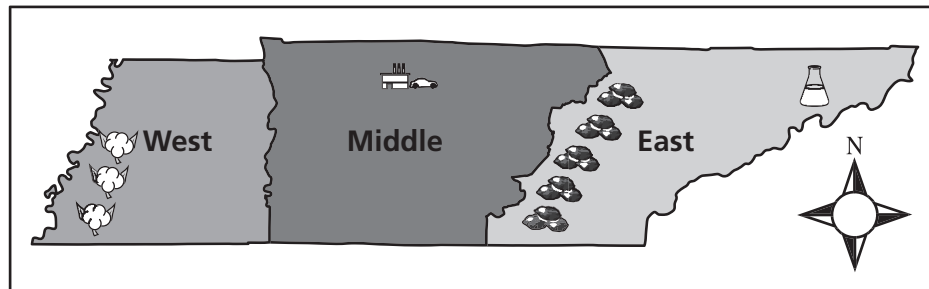
3 Which agricultural product increased its export value each year between 2003 and 2007?





- A** Wheat
- B** Soybeans
- C** Tobacco
- D** Meat

Reporting Category: 1 Economics

Performance Indicator: 7.2.5 Select the major resources, industrial, and agricultural products for the three grand divisions from a map of Tennessee.

Three Grand Divisions of Tennessee



Key	
	Cotton farming
	Pharmaceutical research
	Automobile manufacturing
	Coal mining

4 Which of these industries is important in Middle Tennessee?

- F** Cotton farming
- G** Pharmaceutical research
- H** Automobile manufacturing
- J** Coal mining

Go On ►

Reporting Category: 2 Governance and Civics

Performance Indicator: 7.4.1 Define the different types of governments (i.e., democracy, autocracy, oligarchy, monarchy, dictatorship).

5 Which statement describes a central feature of democratic government?

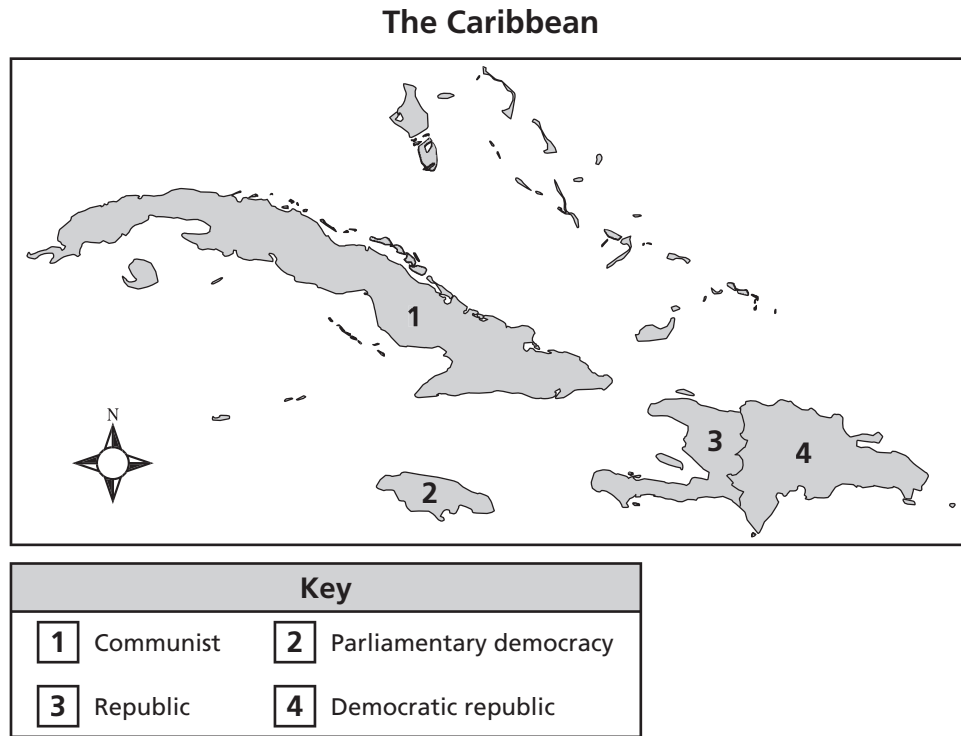
- A** rulers appointed by supreme council
- B** laws made by religious authority
- C** laws made by foreign leaders
- D** rulers selected by the citizens

Reporting Category: 2 Governance and Civics

Performance Indicator: 7.4.1 Define the different types of governments (i.e., democracy, autocracy, oligarchy, monarchy, dictatorship).

6 Which form of government is most commonly led by a hereditary ruler?

- F** oligarchy
- G** plutocracy
- H** monarchy
- J** autocracy



7 Which country on the map above has a government that restricts political freedom?

- A** Country 1
- B** Country 2
- C** Country 3
- D** Country 4

Reporting Category: 2 Governance and Civics

Performance Indicator: 7.4.3 Recognize how the boundaries of Congressional districts change in the state of Tennessee (i.e., statutory requirements, population shifts, political power shifts).

8 Tennessee's congressional district boundaries change based on

- F** census returns.
- G** economic activity.
- H** tax revenue.
- J** candidates' qualifications.

Reporting Category: 2 Governance and Civics

Performance Indicator: 7.4.4 Identify political leaders from selected contemporary settings (i.e., United States, India, Canada, Mexico, Great Britain, Russia, China).

9 What is the title of the political leader of the United Kingdom?

- A** viceroy
- B** president
- C** prime minister
- D** general secretary

Reporting Category: 2 Governance and Civics

Performance Indicator: 7.6.2 Differentiate between the rights, roles and state of the individual in relation to the general welfare in various regions of the world.

I have a dream that my four young children will one day live in a nation where they will not be judged by the color of their skin but by the content of their character . . .

— Rev. Martin Luther King, Jr., August 28, 1963

10 Based on the excerpt above, the Reverend Martin Luther King, Jr., called for

- F** a code of conduct for adolescents.
- G** ending the system of discrimination.
- H** a law funding religious schools.
- J** funding preschool education.

Reporting Category: 2 Governance and Civics

Performance Indicator: 7.6.2 Differentiate between the rights, roles, and state of the individual in relation to the general welfare in various regions of the world.

11 Which sentence describes a responsibility that supports an individual's right to speak freely?

- A** Limit discussions to major issues.
- B** Respect the rights of others to state opinions.
- C** Political viewpoints should be based on experiences.
- D** The best place for opinions is a newspaper.

Go On ►

Reporting Category: 2 Governance and Civics

Performance Indicator: 7.6.3 Recognize the causes, consequences and possible solutions applied by governing bodies to persistent global issues (i.e., health, security, resource allocation, economic development, environmental quality).

The Environmental Protection Agency yesterday tightened [lowered] the regulatory limit on airborne lead for the first time in 30 years . . . The lead in the air eventually falls to the ground, and most of the exposure comes from indoor dust and soil.

— *Washington Post*, October 17, 2008

12 Based on the excerpt above, which issue has the Environmental Protection Agency addressed?

- F** resource distribution
- G** economic development
- H** national security operations
- J** public health conditions

Reporting Category: 3 Human Geography

Performance Indicator: 7.1.1 Recognize cultural definitions (i.e., language, religion, customs, political system, economic system).

- Factories are owned by the government
- Government decides what will be produced
- Variety of products defined by government

13 Which type of political system is described in the list above?

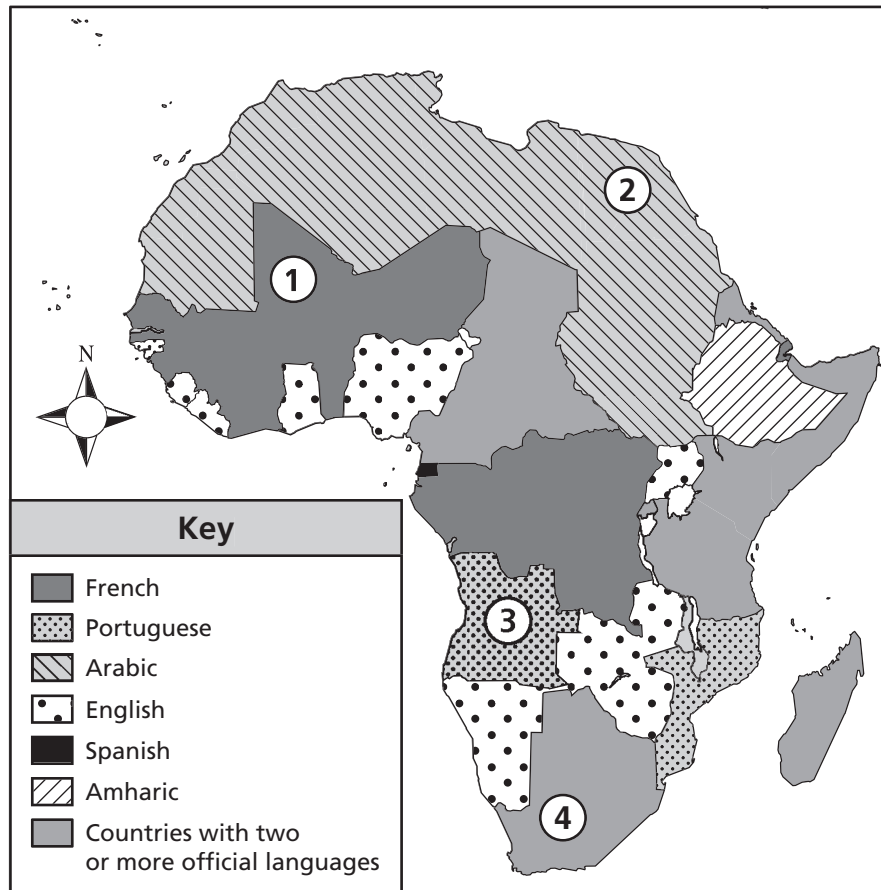
- A** fascist
- B** theocratic
- C** democratic
- D** communist

Go On ►

Reporting Category: 3 Human Geography

Performance Indicator: 7.1.2 Locate cultural information on a thematic map (i.e., languages, political systems, economic systems, religions).

Major Languages of Africa



14 Which numbered region on the map above has an official language that reflects the influence of the spread of Islam?

- F** 1
- G** 2
- H** 3
- J** 4

Reporting Category: 3 Human Geography

Performance Indicator: 7.2.3 Define demographic concepts (i.e., population, population distribution, population density, growth rate).

15 The number of people living in a square mile is a measure of

- A** the rate of dispersal.
- B** population density.
- C** the rate of change.
- D** population distribution.

Reporting Category: 3 Human Geography

Performance Indicator: 7.3.4 Distinguish the differences among rural, suburban, and urban communities.

16 Which of the following activities is more common in urban communities than in suburban communities?

- F** farming the land
- G** shopping in malls
- H** using public transportation
- J** building on undeveloped land

Go On ►

Reporting Category: 3 Human Geography

Performance Indicator: 7.3.8 Define demographic concepts (i.e., population, population distribution, population density, growth rate, family size, and infant mortality).

Growth Rate

- Birth rate
- Death rate
- ?

17 Which demographic measure is also needed to calculate the growth rate?

- A** Population distribution
- B** Graduation rate
- C** Population density
- D** Migration rate

Reporting Category: 3 Human Geography

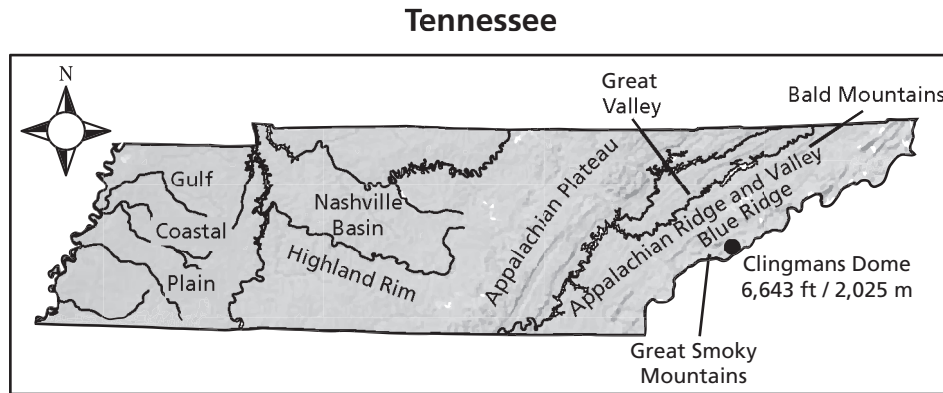
Performance Indicator: 7.3.13 Recognize the definitions of modifications on the physical environment (i.e., global warming, deforestation, desert, urbanization).

18 Greenhouse gases affect the environment by

- F** preserving glaciers.
- G** expanding farm output.
- H** increasing temperatures.
- J** protecting nature reserves.

Reporting Category: 3 Human Geography

Performance Indicator: 7.3.14 Distinguish between types of maps (i.e., political, physical, climatic, land-use, resource, contour, elevation, topographic).



19 Which type of map is shown above?

- A** political
- B** physical
- C** economic
- D** climate

Reporting Category: 3 Human Geography

Performance Indicator: 7.3.16 Demonstrate understanding of characteristics and implications of a diverse global culture.

Ethnic Festivals in Tennessee

Festival	Location
Oktoberfest (German)	Crossville
Gatlinburg Scottish Festival and Games	Gatlinburg
The Hola! Festival – Hispanic Heritage Month	Knoxville
Irish Celebration	Erin

20 Which statement is best supported by the table above?

- F** Tennessee festivals are mainly based on changing seasons.
- G** People from many different cultures have settled in Tennessee.
- H** Many people in Tennessee enjoy going to state parks.
- J** Tennessee's ethnic population has declined in the last ten years.

Reporting Category: 3 Human Geography

Performance Indicator: 7.3.18 Analyze the environmental consequences of humans changing their physical environment (i.e., air and water pollution, mining, deforestation, global warming).

21 Which environmental consequence is most likely a result of water pollution?

- A** deforestation
- B** habitat loss
- C** soil erosion
- D** desertification

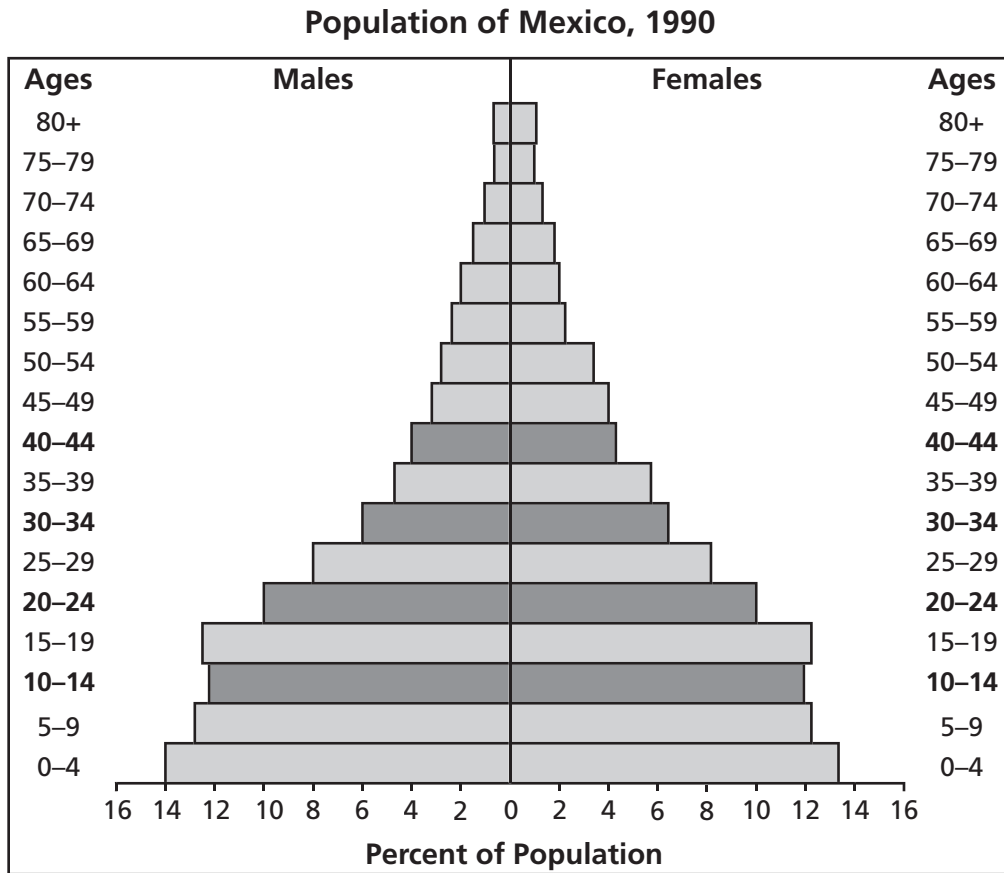
Reporting Category: 3 Human Geography

Performance Indicator: 7.3.19 Predict the consequences of population changes on the Earth's physical environment (i.e., air and water pollution, mining, deforestation, global).

22 Which of these is the most likely result of rapid population growth?

- F** air pollution
- G** school closings
- H** lower food prices
- J** reduced government spending

Go On ►



23 Which age group in the population pyramid above makes up approximately 25 percent of Mexico's population?

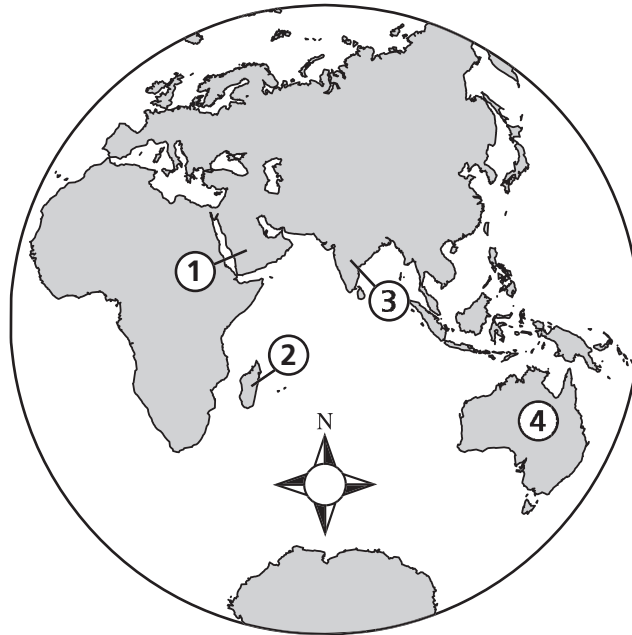
- A** 10-14
- B** 20-24
- C** 30-34
- D** 40-44

24 A compass rose appears on a map in order to

- F** show direction.
- G** measure population.
- H** predict urbanization.
- J** measure distance.

Reporting Category: 4 Physical Geography

Performance Indicator: 7.3.2 Locate the Earth's major physical characteristics (i.e., 7 continents, 4 oceans).



25 Which number on the map above represents the continent of Australia?

- A** 1
- B** 2
- C** 3
- D** 4

Reporting Category: 4 Physical Geography

Performance Indicator: 7.3.3 Identify the major river systems of Tennessee.

26 The western border of Tennessee is formed by the

- F** Mississippi River.
- G** Cumberland River.
- H** Elk River.
- J** Holston River.

Reporting Category: 4 Physical Geography

Performance Indicator: 7.3.5 Select the natural resources found in the 3 grand divisions of Tennessee (coal, copper, timber, plants, animals).

27 Which part of Tennessee has the largest deposits of coal?

- A** Mississippi River Valley
- B** East Tennessee
- C** Central Basin Region
- D** West Tennessee

Go On ►

Reporting Category: 4 Physical Geography

Performance Indicator: 7.3.6 Locate on a map specific lines of longitude and latitude (i.e., Prime Meridian, International Date Line, Equator, North and South Poles, Tropics of Cancer and Capricorn, Arctic and Antarctic circles).

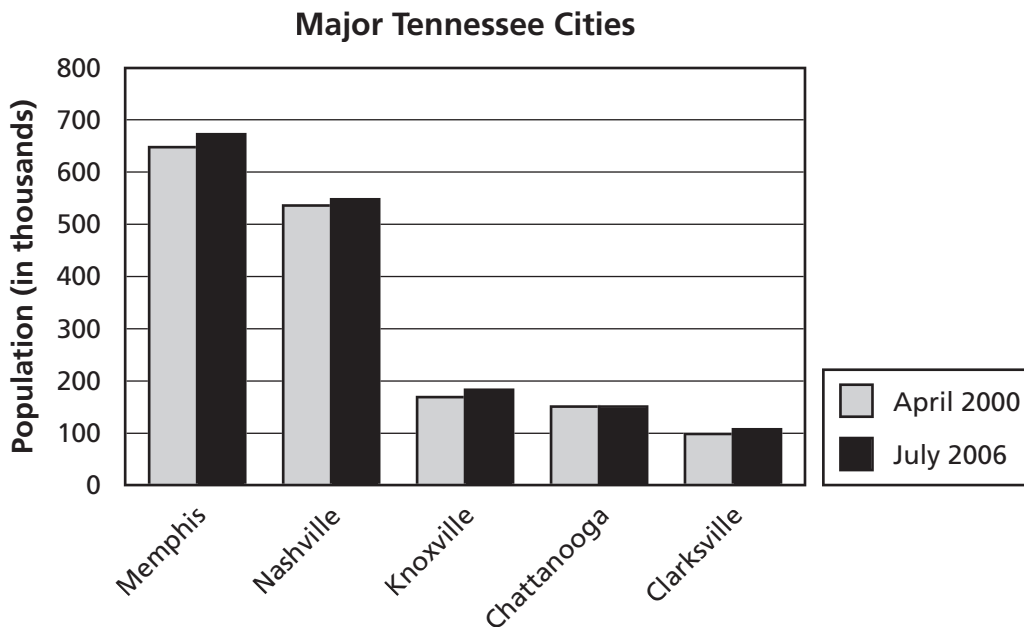


28 Which number on the map above represents the equator?

- F** 1
- G** 2
- H** 3
- J** 4

Reporting Category: 4 Physical Geography

Performance Indicator: 7.3.7 Compare the five largest cities of Tennessee using a bar graph.



29 Which city on the graph above had the smallest population change between 2000 and 2006?

- A** Memphis
- B** Nashville
- C** Knoxville
- D** Chattanooga

Go On ►

Reporting Category: 4 Physical Geography

Performance Indicator: 7.3.9 Identify the location of Earth's major landforms and bodies of water (i.e., Rockies, Andes, Himalayas, Alps, Urals, Sahara Desert, Nile River Valley, Great Plains, Mississippi River, Amazon River, Thames River, Seine River, Rhine River, Danube River, Tigris River, Euphrates River, Ganges River, Volga River, Yellow River).

30 On which continent is the Nile River Valley located?

- F** Asia
- G** Europe
- H** Africa
- J** South America

Reporting Category: 4 Physical Geography

Performance Indicator: 7.3.10 Identify the characteristics that define a region geographically.

31 A region defined by places with similar landforms is

- A** a cultural region.
- B** a physical region.
- C** a political region.
- D** an economic region.

Reporting Category: 4 Physical Geography

Performance Indicator: 7.3.11 Recognize specific physical processes that operate on the Earth's surface (i.e., erosion, volcanoes, earthquakes, wind and water currents, plate tectonics, weathering).

32 Which of these geological forces causes earthquakes?

- F** tectonic plates sliding past each other
- G** creation of sedimentary rock
- H** formation of petrified wood
- J** water eroding river valleys

Reporting Category: 4 Physical Geography

Performance Indicator: 7.3.12 Identify the six physical regions of Tennessee (i.e., Unaka Mountains, Valley and Ridge, Cumberland Plateau, Highland Rim, Central Basin, Gulf Coastal Plain).

33 Which region of Tennessee borders the Mississippi River?

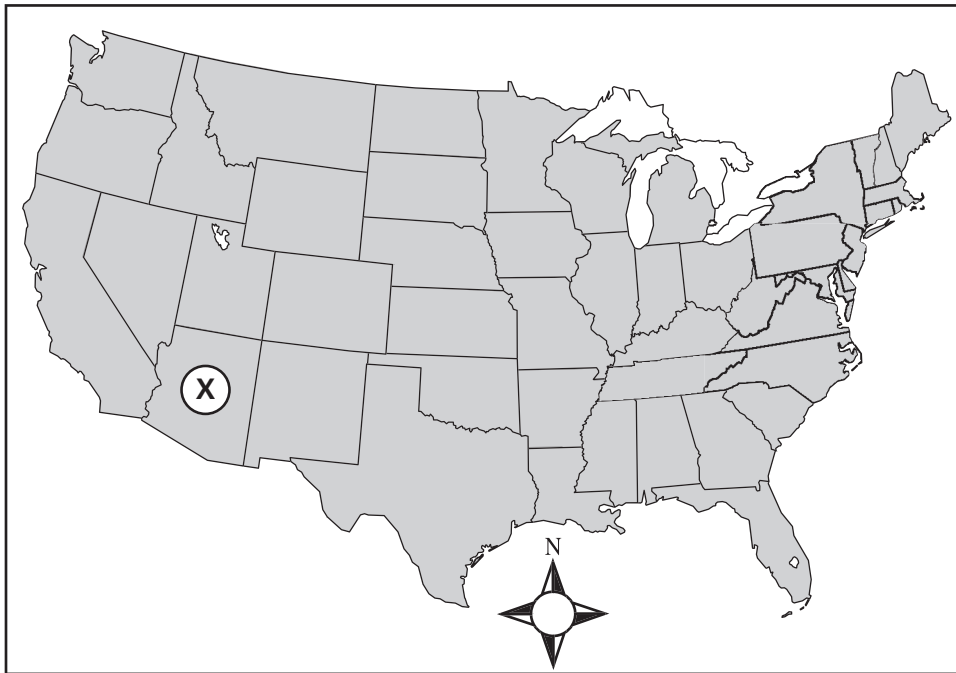
- A** Highland Rim
- B** Unaka Mountains
- C** Gulf Coastal Plain
- D** Cumberland Plateau

Go On ►

Reporting Category: 4 Physical Geography

Performance Indicator: 7.3.15 Interpret a map indicating scale, distance, and direction.

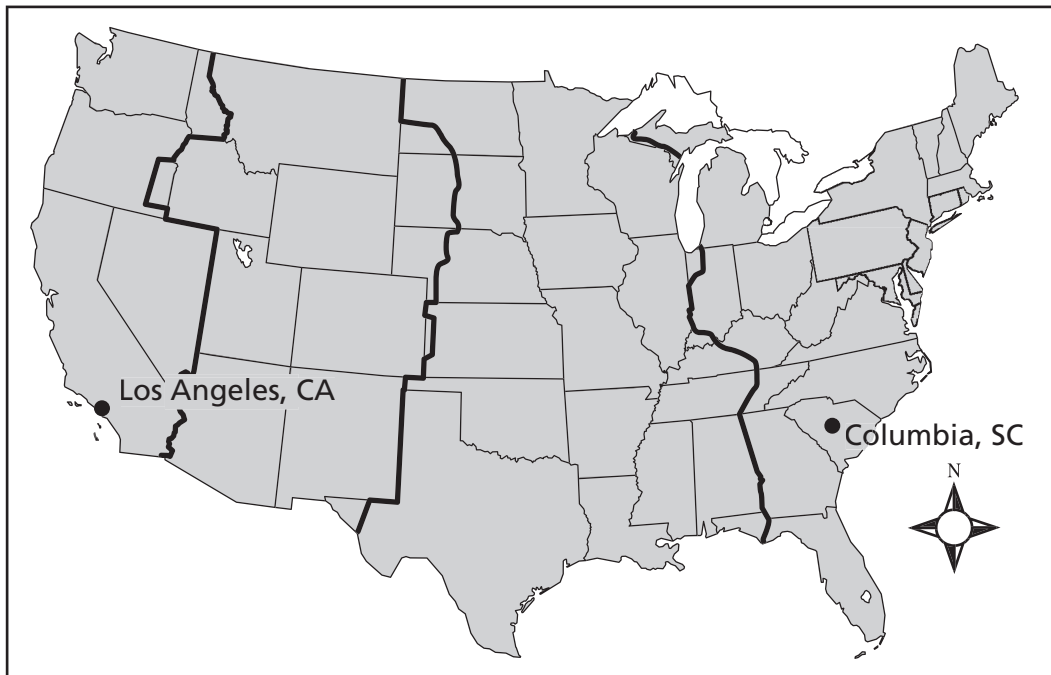
Contiguous United States



34 In which direction from Tennessee is the state marked with an X?

- F** north
- G** south
- H** east
- J** west

U.S. Time Zones



35 Based on the map above, what time is it in Columbia, South Carolina, when it is 6:30 P.M. in Los Angeles, California?

- A** 8:30 P.M.
- B** 9:30 P.M.
- C** 10:30 P.M.
- D** 11:30 P.M.

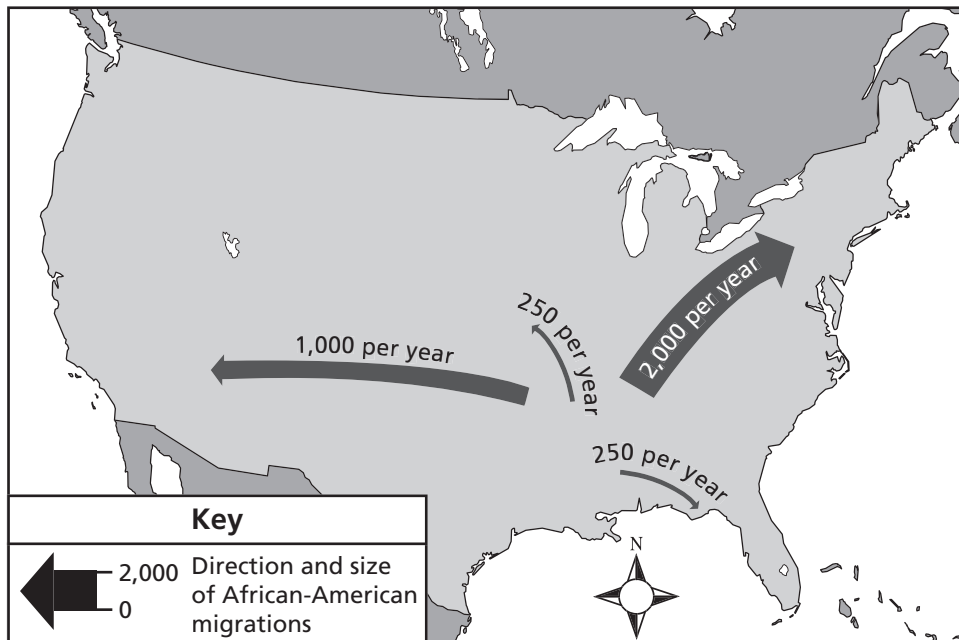
Reporting Category: 5 History

Performance Indicator: 7.1.3 Compare and contrast the tenets of the five major world religions (i.e., Christianity, Buddhism, Islam, Hinduism, Judaism).

36 Which of these major religions has many gods?

- F** Judaism
- G** Christianity
- H** Islam
- J** Hinduism

Selected U.S. Migration Patterns, 1940 – 1960s



37 According to the map above, African Americans who migrated went primarily to states in the

- A** southwest.
- B** northeast.
- C** west.
- D** east.

Reporting Category: 5 History

Performance Indicator: 7.5.1 Identify the causes and consequences of urbanization (i.e., industrial development, education, health care, cultural opportunities, poverty, overcrowding, disease, pollution, crime).

Population of Memphis, Tennessee

	Memphis
1860	22,623
1880	33,582
1900	102,320
1920	162,351
1940	292,942

Source: US Census Bureau

38 What was the primary reason for the demographic trend in the table above?

- F** People wanted to begin farming.
- G** People sought job opportunities.
- H** People wanted to enjoy the climate.
- J** People sought areas with low crime rates.

Reporting Category: 5 History

Performance Indicator: 7.5.2 Identify reasons why people choose to settle in different places (i.e., occupation, family, climate, natural resources).

39 Which reason describes why a country would attract new immigrants?

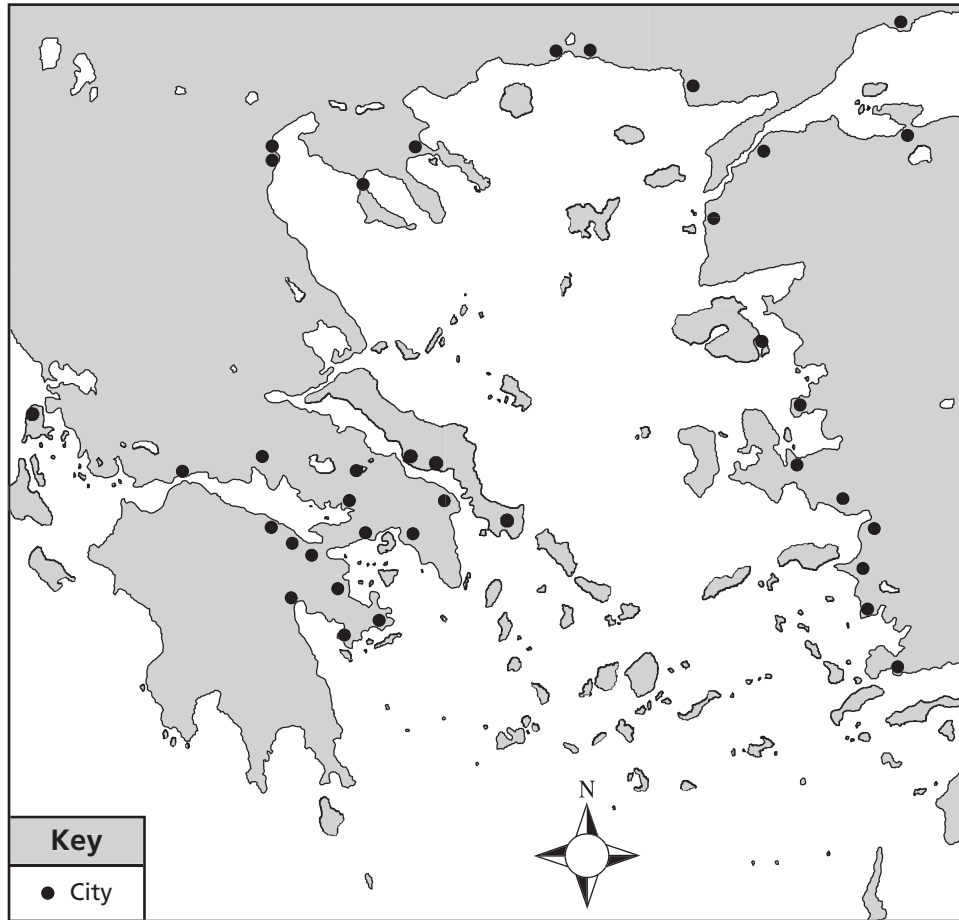
- A** food shortages
- B** lack of religious freedom
- C** availability of jobs
- D** mandatory military service

Go On ►

Reporting Category: 5 History

Performance Indicator: 7.5.3 Map large civilizations to discover the impact of water as a main reason behind a society's founding.

Aegean Sea Region, c. 400 B.C.E.



40 The cities shown on the map above were well suited to

- F** farming.
- G** trade.
- H** worship.
- J** mining.

Reporting Category:**5 History****Performance Indicator:****7.5.4 Analyze the causes and effects of change in a place over time from a written passage.**

- Greenhouse gas concentrations have increased since 1750 and exceed pre-industrial values.
- Temperatures are increasing, sea levels are rising and ice is melting.

— Intergovernmental Panel on Climate Change, 2007

41

What is the most likely cause of the problems listed above?

- A** burning fossil fuels
- B** runoff into the Amazon River
- C** dust from the Sahara
- D** depending on solar energy

Reporting Category:**5 History****Performance Indicator:****7.6.1 Identify ways family, groups, and community influence daily life and personal choices.****42**

European immigrants to the United States often moved to areas where other people from their homeland settled because

- F** these neighborhoods were close to local recreational facilities.
- G** they found high-paying jobs in these neighborhoods.
- H** they received help in these communities.
- J** these neighborhoods had land set aside for new countrymen.

STOP 

Reading/Language Arts Answer Key

1	A
2	G
3	A
4	H
5	C
6	G
7	C
8	G
9	C
10	J
11	B
12	G
13	D
14	G
15	D
16	F
17	A
18	H
19	B
20	G
21	D
22	F

23	C
24	F
25	B
26	J
27	A
28	F
29	A
30	H
31	C
32	G
33	C
34	J
35	D
36	H
37	C
38	J
39	D
40	H
41	C
42	H
43	D
44	F

45	D
46	H
47	C
48	G
49	B
50	F
51	B
52	J
53	B
54	J
55	C
56	F
57	B
58	J
59	B
60	H
61	D
62	G
63	D
64	J
65	A
66	F

67	A
68	G
69	D
70	J
71	B
72	H
73	B
74	H
75	B
76	F
77	D
78	G
79	B
80	H
81	D
82	H
83	C
84	J
85	D

Math Answer Key

1	B
2	H
3	C
4	F
5	B
6	H

7	C
8	J
9	D
10	H
11	A
12	F

13	D
14	J
15	D
16	H
17	B
18	G

19	C
20	H
21	C

Science Answer Key

1	D
2	G
3	D
4	G
5	B
6	H
7	B
8	G
9	A

10	H
11	A
12	H
13	B
14	H
15	C
16	G
17	B
18	G

19	A
20	F
21	C
22	H
23	B
24	J
25	A
26	H
27	A

28	F
29	A
30	J
31	D
32	H
33	D
34	J
35	C
36	F

Social Studies Answer Key

1	D
2	G
3	D
4	H
5	D
6	H
7	A
8	F
9	C
10	G
11	B

12	J
13	D
14	G
15	B
16	H
17	D
18	H
19	B
20	G
21	B
22	F

23	A
24	F
25	D
26	F
27	B
28	J
29	D
30	H
31	B
32	F
33	C

34	J
35	B
36	J
37	B
38	G
39	C
40	G
41	A
42	H



Tennessee Comprehensive Assessment Program

Achievement Test ~ Grade 7

Item Sampler