



Read the passage and then answer the questions.

Use with Chapter 5.

Salton Sea

1 If you could view southern California from the sky, you would see a large lake in the desert. That lake is the Salton Sea, California's largest lake. Today the Salton Sea is 56 kilometers long and 24 kilometers wide, but its size changes over time.

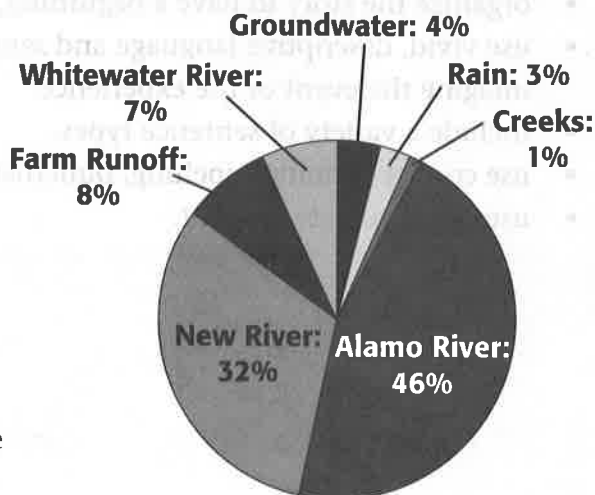
2 The Salton Sea sits in the lowest part of a basin surrounded by mountains. Because of this location, the lake has no outlets for its water. Water can leave the lake only by evaporation.

3 Runoff from farm irrigation provides some incoming water at the lake. Rivers and creeks flowing into the lake are other sources of water. Little water comes from precipitation, which is only about 6.5 centimeters a year. At the present time, the flow of water into the lake and the evaporation of water from the lake are balanced. But that balance can change suddenly if heavy rains or drought hit the area. The result can be serious flooding.

4 Both the rivers and runoff flowing into the Salton Sea bring salt and other nutrients in their waters. In fact, the lake receives enough salt every day to fill a train. As water evaporates from the lake, the salt is left behind. Over time the amount of salt in the lake has increased. Today water in the Salton Sea is 25 percent saltier than ocean water.

5 The Salton Sea provides an abundance of wildlife habitats. Hundreds of species of birds live in or visit the area. Some people say that the Salton Sea is the most productive fishery in the world. However, scientists are concerned. The amount of salt and other nutrients has increased to harmful levels in the lake's water. Many species of wildlife can no longer live there. The Salton Sea Authority is working to solve this problem and others that face the lake. Their plan is to once again make Salton Sea an inviting environment for California wildlife.

Sources of Inflow to the Salton Sea



California Science Content Standard 5ES3.d Students know that the amount of fresh water located in rivers, lakes, underground sources, and glaciers is limited and that its availability can be extended by recycling and decreasing the use of water.

**Fill in the circle of the correct answer.**

Use with Chapter 5.

1. What does each wedge of the graph stand for?

- (A) the amount of water leaving Salton Sea from different sources
- (B) the amount of water entering Salton Sea from different sources
- (C) the amount of salt leaving Salton Sea from different sources
- (D) the amount of salt entering Salton Sea from different sources

2. Which sentence does NOT support this statement: The Salton Sea has an important role in providing wildlife habitats?

- (A) Hundreds of species of birds live in or visit the Salton Sea area.
- (B) Some people say that the Salton Sea is the most productive fishery in the world.
- (C) Many people in California like to boat and fish at the Salton Sea.
- (D) Salton Sea provides an abundance of wildlife habitats

3. Which is a problem at Salton Sea that concerns scientists?

- (A) The amount of salt and other nutrients has increased in the lake's water.
- (B) Today the Salton Sea is 56 kilometers long and 24 kilometers wide.
- (C) At the present time, the flow of water into the lake and the evaporation of water from the lake are balanced.
- (D) The Salton Sea is the largest lake in California.

4. Which statement about the Salton Sea is a fact?

- (A) The Salton Sea is the best birdwatching place in California.
- (B) Everyone should visit the Salton Sea at least once.
- (C) Some people think that the Salton Sea is the most productive fishery in the world.
- (D) You haven't seen the best place if you don't go to the Salton Sea.

5. Read this sentence from paragraph 3 of the passage.

Little water comes from precipitation, which is only about 6.5 centimeters a year.

The prefix centi- comes from a Latin word meaning

- (A) ten.
- (B) hundred.
- (C) thousand.
- (D) million.



Brad is writing a report about wetlands. Here is the first draft of his report, which contains errors. Read the report and then answer the questions.

Use with Chapter 5.

Wetlands

- 1 A wetland is land that has water at or near its surface during some part of the year. The water can come from rain, extra water flowing into the area from rivers and runoff, tides, or human action.
- 2 There are several kinds of wetlands. Most of them belong to one of three groups.
 1. Saltwater marshes are usually near the coast.
 2. Freshwater wetlands are usually inland.
 3. Riparian habitats are forest areas covered with fresh water.

Examples of each type of wetland can be found in California.

- 3 Wetlands are important for many reasons. About half the people in the United States use groundwater for all or part of their drinking water. The water from wetlands seeps into the ground. This helps keep the groundwater levels where they should be. The process is called groundwater recharge.
- 4 Water flowing through a wetland carries important nutrients. It also can carry sediments and pollutants. As water passes through wetlands, organisms living there filter out pollutants. The many plants in a wetland also slow down the flow of water. The slower moving water allows more sediments to settle out of the water. Also pollutants are often attached to sediments, so the settling helps get rid of pollutants in the water. The result of these processes is that cleaner water seeps into the ground.
- 5 Wetlands are also important in controlling flooding. When a lot of precipitation suddenly hits an area, wetlands store some of the water. They release the water slowly. As a result, flooding is prevented. Groundwater recharge, filtering pollutants, and preventing flooding are just some ways that wetlands are important.



Fill in the circle of the correct answer.

Use with Chapter 5.

6. Read this sentence from Brad's report.

There are several kinds of wetlands. Most of them belong to one of three groups.

How can these sentences BEST be combined without changing the meaning?

- (A) There are several kinds of wetlands because most belong to one of three groups.
- (B) There are several kinds of wetlands, but most of them belong to one of three groups.
- (C) There are several kinds of wetlands when they belong to one of three groups.
- (D) There are several kinds of wetlands unless most of them belong to one of three groups.

7. Why does the writer use a numbered list in the second paragraph?

- (A) to make the report longer
- (B) to organize the information to make it easier to understand
- (C) to show which of the three kinds of wetlands is most important
- (D) to show the steps in the formation of a wetland

8. Which is the correct way to write the first sentence of the report?

- (A) A wetland is land that has water at or near it's surface during some part of the year.
- (B) A wetland is land that has water at or near its' surface during some part of the year.
- (C) A wetland is land that has water at or near its surface, during some part of the year.
- (D) Leave as is.

9. Which underlined word from the report is NOT spelled correctly?

- (A) settle out of the water
- (B) groundwater levels
- (C) wetland carrys important nutrients
- (D) controlling flooding

10. Read this sentence from paragraph 5 of the report.

They release the water slowly.

Which word or phrase is an antonym of release in this sentence?

- (A) set free
- (B) let go
- (C) hold back
- (D) raise up



Read the passage and then answer the questions.

Use with Chapter 6.

Weather Balloons

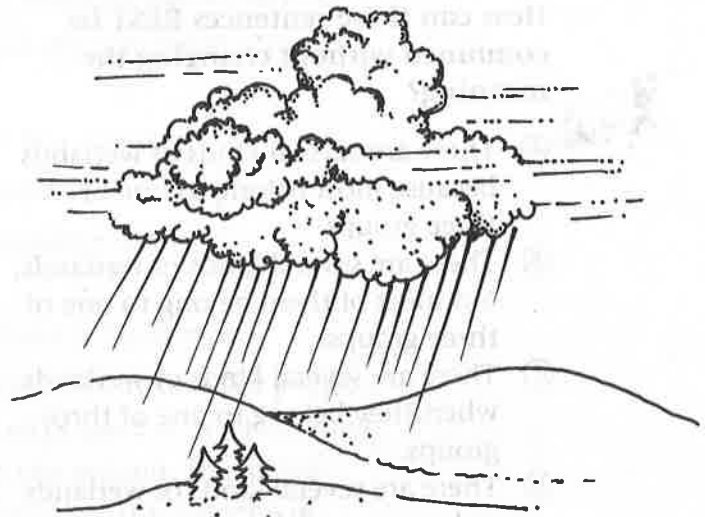
1 Twice each day at set times, the National Weather Service (NWS) releases weather balloons from 900 weather stations around the world. In California the release times are at 3 A.M. and 3 P.M. Data that these balloons collect is used to make daily weather forecasts.

2 Scientists prepare the weather balloon for release inside a building called an inflation shelter. A dishlike antenna on top of the building receives radio signals from the balloon. The signals allow meteorologists to track the balloon as it travels in the atmosphere.

3 When released, the balloon travels upward, sometimes as high as 32 kilometers. During its trip, the weather balloon measures air temperature, humidity, and air pressure. The part of the balloon that has the tools to measure conditions in the atmosphere is the radiosonde. Data from the radiosonde is sent to the local ground station. There, computers calculate wind speed and direction.

4 Calculated data from all the NWS local offices is sent to NWS supercomputers near Washington, D.C. Scientists there have programmed the supercomputers to simulate what really happens in our atmosphere. Using the data from all the weather stations, the computers make weather predictions about the conditions in the atmosphere. The NWS office transmits these predictions to all NWS local offices. There, meteorologists use the supercomputer's predictions about the atmospheric conditions to predict local weather.

5 If you would like to see a NWS weather balloon being released, call a local office. You can find its phone number in the phone book.





Fill in the circle of the correct answer.

1. Which of these activities happens before the others?

- (A) Supercomputers in Washington, D.C. analyze data and make predictions about atmospheric conditions.
- (B) Meteorologists predict local weather.
- (C) Tools in the radiosonde collect data about temperature, humidity, and air pressure.
- (D) Calculated data from NWS offices is sent to Washington, D.C.

2. Which statement about weather balloons is NOT correct?

- (A) Weather balloons all over the world are released at 3 A.M. and 3 P.M.
- (B) The radiosonde collects data about the atmosphere.
- (C) A weather balloon may travel 32 kilometers into the atmosphere.
- (D) The weather balloon is prepared for release in the inflation shelter.

3. Read this sentence from paragraph 2 of the passage.

Scientists prepare the weather balloon for release inside a building called an inflation shelter.

In which word does the ion have the same meaning as in the word inflation?

- (A) onion
- (B) confusion
- (C) region
- (D) portion

4. Which is the correct way to spell more than one antenna?

- (A) antennaes
- (B) antennas
- (C) antennase
- (D) antennai

5. Read this sentence from paragraph 2 of the passage.

The signals allow meteorologists to track the balloon as it travels in the atmosphere.

The word atmosphere is made up of two parts. Atmos comes from a Greek word meaning "gas or vapor." Based on this, the literal meaning of atmosphere is

- (A) gas cloud.
- (B) ball of gas.
- (C) hot gas.
- (D) gas cover.



Students in a fifth grade class were asked to write about droughts in California. Here is one student's paper. It contains errors. Read what the student wrote and then answer the questions.

Use with Chapter 6.

Drought in California

- 1 Most places, including California, have a drought now and then. A true drought in California and most other places happens gradually over several years. A single year of dry weather usually is called a dry spell, not a drought.
- 2 Drought will affect more people the longer it lasts. That is because the amount of groundwater and water in reservoirs gets smaller as a drought goes on.
- 3 The affect of a drought on water users is different from place to place. For example, people who most need rain and other precipitation will feel the affects of a drought first. Those people include farmers, ranchers, and people who get water from small wells.
- 4 California has more than 10 million acres of cropland. It also has 30 million acres of rangeland. Even a mild drought can have serious effects on those areas. Without enough water, crops and animals can die.
- 5 Serious draught does not happen often in California. The most recent California drought happened from 1987 to 1992. The effect of that drought on the people of California led to improvements in the state water system. Today California's water system helps prevent water shortages for most users during short dry spells. Finding solutions to long droughts remains a priority in the state.



Fill in the circle of the correct answer.

6. Which underlined word from the passage is spelled correctly?

- (A) the affect of a drought
- (B) drought will effect more people
- (C) drought can have serious effects
- (D) will feel the affects of a drought

7. Read this sentence from the first paragraph of the passage.

Most places, including California, have a drought now and then.

The idiom now and then means

- (A) today and yesterday.
- (B) from time to time.
- (C) today and tomorrow.
- (D) often.

8. Read this sentence from the first paragraph of the passage.

A single year of dry weather usually is called a dry spell, not a drought.

Which is the BEST meaning for the word spell in the above sentence?

- (A) signal
- (B) charm
- (C) period
- (D) attack

9. The student who wrote the paper would like to replace the word happen in the sentence below.

The most recent California drought happened from 1987 to 1992.

The student finds this information in a thesaurus.

happen, verb

- 1. take place
- 2. become of
- 3. have the good luck
- 4. discover

Which word should the student use in place of the word happened?

- (A) took place
- (B) became of
- (C) had the good look
- (D) discovered



Read the passage and then answer the questions.

A New Planet?

1 Eris might seem like a strange name for a planet. That is the name given to a dwarf planet discovered by astronomers. The International Astronomical Union is a group of people who make the final decision about the name.

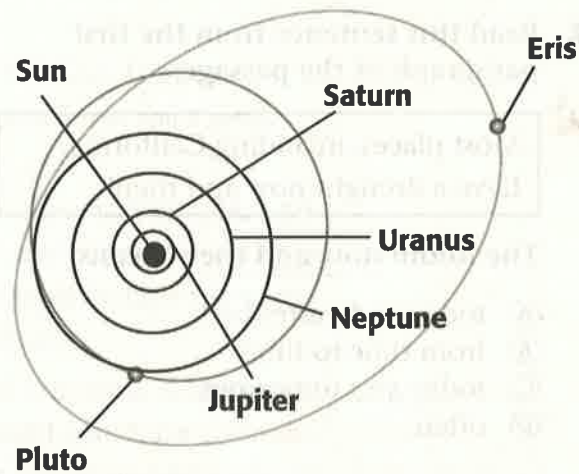
2 Astronomers first photographed Eris on October 31, 2003, but they didn't recognize it as a dwarf planet. Because the object was so far from Earth, astronomers were unable to see that it was moving. They discovered that the object moved when studying data in January 2005. The discovery was officially announced in July of that same year.

3 Eris is the most distant object seen in orbit around the Sun. Its orbit takes it almost 16 billion kilometers from the Sun. That is more than three times farther away than Pluto. This object takes 560 years to orbit the Sun, more than twice as long as Pluto. You can see a model of its orbit in the diagram.

4 Astronomers have not been able to measure the actual size of the dwarf planet. So how do they know how large it is? Astronomers use measurements of the object's brightness to estimate its size. Scientists know that all planets reflect sunlight. That is the light we see when we observe planets in the sky. Generally, the larger the planet, the bigger the reflection. Using this information, astronomers have been able to guess that the object is about one and a half times the size of Pluto.

5 As astronomers continue to study this object, they will find more information about the possible new addition to our solar system. You can keep up with the news by checking the NASA web site.

Orbits of Outer Planets





Fill in the circle of the correct answer.

1. Why didn't astronomers know that Eris was a dwarf planet when they first photographed it?

- (A) They didn't know how big it was.
- (B) The object takes 560 years to orbit the Sun.
- (C) They couldn't see that the object was moving.
- (D) The object reflects sunlight.

2. Suppose that in the future astronomers find a larger planet. Which statement is MOST LIKELY true about the larger planet?

- (A) It will orbit the Sun once every 560 years.
- (B) It will be three times farther from the Sun than Eris is.
- (C) It will be about one and a half times the size of Pluto.
- (D) It will reflect more light than Eris.

3. According to the diagram, how does the orbit of Eris differ from the orbit of other planets?

- (A) Eris travels in a counterclockwise direction.
- (B) Eris's orbit is more oval than the orbit of the other planets.
- (C) Eris does not travel around the Sun.
- (D) Eris travels slower than the other planets.

4. Read this sentence from paragraph 4 of the passage.

Astronomers have not been able to measure the actual size of the dwarf planet.

The origin of the word astronomer is the Greek word astro meaning

- (A) star.
- (B) student.
- (C) scientist.
- (D) light

5. Read this sentence from the third paragraph of the passage.

Eris is the most distant object seen in orbit around the Sun.

Which word or phrase is an antonym of distant?

- (A) far
- (B) close
- (C) remote
- (D) outlying



Janelle is writing a report about Comet Halley. Here is her first draft. Use with Chapter 7.
It contains errors. Read the report and then answer the questions.

Comet Halley

- 1 About once every 76 years, people on Earth get to see Comet Halley. The brightness of the comet as it moves across the sky at different times can be different. In 1066 the comet was so bright that millions of people became really scared when they saw it. During the comet's visit in 1986, people couldn't hardly see it.
- 2 The next visit of Comet Halley across Earth's sky will not take place until around 2061. But many people want to see it before then. They can see bits and pieces of the comet during the Orionids meteor shower. It takes place every year.
- 3 When you look at Comet Halley, you don't see its solid center. The center is called the nucleus. The nucleus of Comet Halley measures about 13 kilometers by 8 kilometers. Scientists think that it is made up of water ice, frozen gasses, and dust.
- 4 During most of its orbit, a comet travels in the extreme cold of deep space. There the materials that make up the nucleus of the comet are frozed. But as the comet gets near our Sun, the comet begins to warm up. When the comet warms to the right temperature, the water begins to evaporate. As a result, the dust that was in the frozen water is released from the nucleus. The particles that are released are very, very tiny. This dust and evaporated water form an atmosphere around the nucleus of the comet. The same materials may also form a tail on the comet.
- 5 As the comet continues on its orbit, many of the particles making up the tail are left behind. Each year Earth passes through this debris from Comet Halley. Because of the tremendous speed of the debris when it hits Earth's atmosphere, the debris particles form a brilliant meteor shower. This is the Orionids meteor shower.



Fill in the circle of the correct answer.

- 6. Read this sentence from paragraph 2 of Janelle's report.**

They can see bits and pieces of the comet during the Orionids meteor shower.

The idiom bits and pieces means

- (A) the larger parts.
 - (B) a collection of small parts.
 - (C) bright parts.
 - (D) slow moving parts.
- 7. Read this sentence from the first paragraph of the report.**

During the comet's visit in 1986, people couldn't hardly see it.

What is the correct way to write this sentence?

- (A) During the comet's visit in 1986, people could not hardly see it.
- (B) During the comet's visit in 1986, people could hardly see it.
- (C) During the comet's visit in 1986, people could'nt hardly see it.
- (D) Leave as is.

- 8. Which underlined word from the passage is NOT spelled correctly?**

- (A) tremendous speed
- (B) a tail on the comet
- (C) frozen gasses
- (D) brilliant meteor shower

- 9. Read this sentence from paragraph 4 of the report.**

There the materials that make up the nucleus of the comet are frozed.

Which is the correct form of the underlined verb in the sentence?

- (A) froze
 - (B) freezed
 - (C) frozen
 - (D) Leave as is.
- 10. Read these sentences from the report.**

They can see bits and pieces of the comet during the Orionids meteor shower. It takes place every year.

How can you BEST combine these sentences without changing the meaning?

- (A) They can see bits and pieces of the comet during the yearly Orionids meteor shower.
- (B) They can see bits and pieces of the comet during the Orionids meteor shower, and the shower takes place every year.
- (C) They can see bits and pieces of the comet during the Orionids meteor shower if it takes place every year.
- (D) They can see bits and pieces of the comet during the Orionids meteor shower after it takes place every year.

Name _____



Use with Unit C.

Write an Article

Read the writing prompt in the box. Then write your article on a separate sheet of paper.

Write an article for the school newspaper encouraging students to conserve water.

As you write your article, remember that you should:

- state your position clearly.
- support your position with relevant evidence.
- present your position and evidence in a simple organizational pattern.
- address possible reader concerns.
- follow grammar, capitalization, and spelling guidelines.
- use only accurate content.