Lesson 15

Word List

Study the definitions of the words below; then do the exercises for the lesson.

analyze
an´ ə līz

v. To break down into separate parts in order to study.
Experts who **analyze** violent crime point to poverty as one of the major causes.
analysis *n.* (ə nal´ ə sis) An examination of the whole in order to examine its various parts.
Chemical **analysis** of the rock showed that it contained uranium.

apprehensive
ap rē hen´ siv

adj. Worried or uneasy about what might happen.
Talk about another war made us **apprehensive**.
apprehension *n.* Worry about what might happen; dread.
The police chief was filled with **apprehension** when an unruly mob formed.

coincide
kō in sīd´

v. 1. To be in the same place or occur at the same time.
Graduation day **coincides** with Akeesha's birthday.
2. To be exactly the same; to agree.
My skills **coincide** with the job description.
coincidence *n.* (kō in´ si dəns) Occurrences that seem to be related but are connected only by chance.
It's just a **coincidence** that the bride and groom have the same last name.

compose
kəm pōz´

v. 1. To make by combining.
Concrete is **composed** of cement, sand, and water.
2. To create or write, as a poem or a song.
The singer and songwriter Paul Simon **composes** music that draws from many cultures.
3. To quiet or calm.
Compose yourself before you get up to speak.

disk
disk

n. Any thin, circular object.
The checkers pieces were plastic **disks**.

envelop
en vel´ əp

v. To hide or cover on all sides.
Darkness **enveloped** the town when the electric power station suddenly shut down.

exist
eg zist´

v. 1. To be real.
Did the lost world of Atlantis really **exist**?
2. To be found; to occur.
Many scientists believe that life must **exist** elsewhere in the universe.
3. To stay alive.
Living things cannot **exist** without water.

extraordinary
ek strôrd´ n er ē

adj. Very unusual; remarkable.
The hockey team's winning an Olympic gold medal was an **extraordinary** achievement.

fuse
fyo͞oz
v. To join together by or as if by melting.
Heat from the fire had **fused** the metal parts into a solid piece.
fusion *n.* (fyo͞o´ zhən) A **fusing** or joining together.
An alloy is made by the **fusion** of two or more different metals.

mere
mēr
adj. Nothing more than; only.
It is a **mere** half mile into town.

revolve
rē välv´
v. To go around something in a circle; to turn around in a circle.
The rim of a wheel **revolves** around its hub.

scale
skāl
n. 1. Any of the hard, thin plates that cover fish and certain reptiles.
Remove the **scales** from the fish before you cook it.
2. A series of musical notes that go higher and higher or lower and lower.
The chorus members sang a few **scales** to warm up their voices.
3. (often *pl.*) An instrument for measuring weight.
The doctor told the patient to get on the **scales** so she could check his weight.
4. The way size on a map or model compares with the size of the thing it stands for.
This map has a **scale** of one inch to a mile.
5. A series of steps, degrees, or stages.
The Richter **scale** measures the amount of energy released by an earthquake.
v. To climb or climb over.
The prisoners had to **scale** a high wall in order to escape.

solar
sō´ lər
adj. Of or having to do with the sun.
A **solar** eclipse occurs when the moon passes directly in front of the sun.

trace
trās
n. 1. A very small amount.
The **traces** of lead found in the water will not jeopardize the health of those who drink it.
2. A mark or sign left behind by someone or something.
The book claims that many ships entering the Bermuda Triangle have disappeared without a **trace**.
v. 1. To follow the trail or tracks of; to locate.
Detectives **traced** the children's parents to Seattle.
2. To copy by following the lines of a drawing through thin paper.
I carefully **traced** the map for my report.

velocity
və läs´ ə tē
n. Rate of movement; speed.
The **velocity** of a pitcher's fastball can exceed 90 miles per hour.

15A Finding Meanings

Choose two phrases to form a sentence that correctly uses a word from Word List 15. Write each sentence on the line provided.

1. (a) An extraordinary idea is one
   (b) that one keeps to oneself.
   (c) A mere idea is one
   (d) that is very unusual.

2. (a) cover it completely.
   (b) send it through the mail.
   (c) To analyze something is to
   (d) To envelop something is to

3. (a) To be a mere child is to be
   (b) To be a composed child is to be
   (c) nothing more than a child.
   (d) a child in fiction rather than real life.

4. (a) a thin, circular object.
   (b) a mark left behind by something.
   (c) A scale is
   (d) A trace is

5. (a) A composed witness is one
   (b) who is obviously lying.
   (c) who does not get upset.
   (d) An apprehensive witness is one

6. (a) A disk is
   (b) a series of musical notes.
   (c) A scale is
   (d) the highest point.

7. (a) worry about what might happen.
   (b) Apprehension is
   (c) sadness over events of the past.
   (d) Fusion is

8. (a) the path of an object in space.
   (b) A disk is
   (c) any thin, circular object.
   (d) A coincidence is

9. (a) Analysis is
   (b) putting words to music.
   (c) Fusion is
   (d) a breaking down of the whole into its parts.

10. (a) To exist is to
    (b) keep happening over and over.
    (c) To coincide is to
    (d) be real rather than imaginary.

15B Just the Right Word

Improve each of the following sentences by crossing out the bold phrase and replacing it with a word (or a form of the word) from Word List 15.

1. I became **worried about what might have happened** when I didn't hear from you.

2. On a **series of steps numbered** from one to ten, the judges rated the performance a seven.

3. Extreme heat and pressure cause the metal plates to **join together as a single sheet**.

4. A microscope revealed **very small amounts** of blood on the murder weapon.

5. The moon **travels in a circular path** around Earth once every 27.3 days.

6. Only a few pairs of condors still **are to be found** in the wild in the United States.

7. Mozart began **creating musical works** when he was five years old.

8. The **energy from the sun striking the** panel on the roof is used to heat the water in the pool.

9. To find the **speed at which something travels**, you need to know distance traveled and time taken.

10. Since our vacations **occurred at the same time**, we decided to go to Puerto Rico together.

analyze
apprehensive
coincide
compose
disk
envelop
exist
extraordinary
fuse
mere
revolve
scale
solar
trace
velocity

15C Applying Meanings

Circle the letter of each correct answer to the questions below. Each question has from one to four correct answers.

1. Which of the following can be **analyzed**?
   (a) rock samples
   (b) the causes of the Vietnam War
   (c) blood
   (d) the length of the day

2. Which of the following could be **traced**?
   (a) the outline of a peninsula
   (b) a family history
   (c) a long lost relative
   (d) a missing letter

3. Which of the following might **revolve**?
   (a) a door
   (b) a stage
   (c) a pedestal
   (d) a tree

4. Which of the following would be **extraordinary**?
   (a) a parrot that talks
   (b) a fish that walks
   (c) a fourteen-year-old college student
   (d) a twenty-foot sandwich

5. Which of the following **exist**?
   (a) tyrants
   (b) unicorns
   (c) feelings
   (d) dinosaurs

6. Which of the following is a **disk**?
   (a) a coin
   (b) a softball
   (c) a dollar bill
   (d) the full moon's appearance

7. Which of the following can be **composed**?
   (a) a dream
   (b) a person
   (c) a reply
   (d) a poem

8. Which of the following could be **scaled**?
   (a) terrain
   (b) a fence
   (c) poverty
   (d) a ladder

15D Word Study

Select the pair of words that most nearly expresses the relationship of the pair of words in capital letters. Circle the letter in front of the pair you choose.

HINT! Look for (1) a greater or lesser degree of the same condition; (2) the relationship of the part to the whole; (3) or the relationship between one part of speech and another.

1. SKIRMISH : BATTLE ::
   (a) trial : verdict
   (b) dispute : brawl
   (c) sword : shield
   (d) lion : tamer

2. APPREHENSIVE : TERRIFIED ::
   (a) possess : relinquish
   (b) tired : hungry
   (c) pleased : ecstatic
   (d) inhibited : bold

3. ERROR : BLUNDER ::
   (a) pain : agony
   (b) woe : tears
   (c) decision : unanimity
   (d) mistake : correction

4. HAPPY : ECSTATIC ::

(a) joyful : mediocre
(b) hungry : ravenous
(c) skilled : inept
(d) conspicuous : hidden

5. VALUABLE : INVALUABLE ::

(a) fake : real
(b) proud : arrogant
(c) shy : quiet
(d) soothing : irritating

6. SCALE : FISH ::

(a) pounds : weight
(b) feather : bird
(c) stream : river
(d) fly : plane

7. COAT : ATTIRE ::

(a) paint : brush
(b) shoes : socks
(c) envelope : stationery
(d) jacket : pants

8. SOLAR : SUN ::

(a) bright : star
(b) cold : ice
(c) blue : sky
(d) tyrannical : tyrant

9. BENEVOLENT : BENEVOLENCE ::

(a) beneficial : benefit
(b) weary : traveler
(c) clever : mind
(d) inept : skill

10. ANALYZE : ANALYSIS ::

(a) coincide : chance
(b) exist : creature
(c) inhibit : inhibition
(d) measure : velocity

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15E Passage

Read the passage below; then complete the exercise that follows.

Our Brightest Star

The sun has always occupied a special place in the human imagination; indeed, in many societies throughout history it was worshiped as a god; the Colossus of Rhodes, one of the Seven Wonders of the world, was a statue of the sun god Helios. People once believed that the sun **revolved** around the earth, which was thought to be the center of the universe. They also believed that eclipses of the sun could cause disasters, perhaps from the **coincidence** of an earthquake or fire with an eclipse.

We now know that both of these beliefs are false. In fact, one of the most **extraordinary** things about the sun is that it is a perfectly ordinary star, no different from billions of other stars scattered throughout the universe. Of course, it is special to us because without its energy, life on Earth could not **exist**. But the only reason Earth receives more heat and light from the sun than from the billions of similar stars is that the sun is so close to us, a **mere** 93 million miles away.

It takes light from the sun, traveling at a **velocity** of 186,000 miles per second, only eight minutes to reach Earth. Light from Proxima Centauri, the next closest star, takes over four years to reach us. If we imagine the sun shrunk to the size of an orange, Earth on this same **scale** would be twenty-six feet from the sun and would be only slightly bigger than the period at the end of this sentence. Proxima Centauri would be over thirteen hundred miles away!

Human beings no longer worship the sun, but they do study it, and eclipses of the sun provide an excellent opportunity for doing this. **Solar** eclipses occur when the moon passes directly in front of the sun and blocks out its direct light. Astronomers eagerly await solar eclipses although they last just a short time. In photographs taken at such times the sun appears as a black **disk** surrounded by tremendous flames leaping from its fiery surface. These flames, which can be photographed only during an eclipse, can reach a height of 120,000 miles, almost half the distance from Earth to the moon.

When scientists **analyzed** light from the sun, they found that the sun is **composed** mostly of hydrogen, a much smaller amount of helium, and **traces** of other elements. The sun's interior is about 150,000 times hotter than boiling water, hot enough that hydrogen atoms **fuse** and become helium atoms, giving off energy as they do so. This energy reaches Earth in many forms; the two we are most familiar with are heat and light.

By comparing the sun to other stars, scientists can estimate the age of the sun, for stars are born, reach middle age, and die. We know that our sun is about five billion years old, which is middle-aged for a star. When it eventually uses up its hydrogen, it will start to die. With no more fuel to burn, it will start to cool, getting larger and larger as it does so. It will finally become so enormous that it will **envelop** the planets closest to it, including our own Earth. However, there is no reason for anyone to be **apprehensive**. It will be five billion years before this happens.

Answer each of the following questions in the form of a sentence. If a question does not contain a vocabulary word from this lesson's word list, use one in your answer. Use each word only once. Questions and answers will then contain all fifteen words (or forms of the words).

1. Why might the sun have made ancient peoples **apprehensive**?

2. How might ancient peoples have regarded an eclipse of the sun?

3. With which two forms of **solar** energy are we most familiar?

4. What is the meaning of **exist** as it is used in the passage?

5. What is the relationship of Earth's movement to the sun?

6. Why do you think the author says that the sun is a **mere** 93 million miles away?

7. What is the meaning of **traces** as it is used in the passage?

8. How fast does light travel?

9. What happens to hydrogen atoms at very high temperatures?

10. How do scientists know what the sun is made of?

11. What is the meaning of **scale** as it is used in the passage?

12. Is the eruption of a volcano during an eclipse related to the eclipse?

13. How does the moon appear during a total eclipse of the sun?

14. What is the meaning of **composed** as it is used in the passage?

15. How large will the sun get when it starts to expand?