ENG III

LESSON 7 SCIENCE AND TECHNOLOGY 7

Throughout history, scientific research has led to new inventions. For example, Ben Franklin's kite experiments helped later scientists to harness electricity. Today bionicists study anatomy in order to create devices such as artificial hearts. Many technical developments like these have altered and enriched our lives.

The words in this lesson will help you to understand some of the vocabulary used by scientists and technologists. Studying these words may also help you to understand how scientific knowledge leads to technological progress.

WORD LIST

alloy
buoyant
celestial
coagulate
combustible
conflagration
dissection
distill
meteorology
saturate

DEFINITIONS

After you have studied the definitions and example for each vocabulary word, write the word on the line to the right.

1. **alloy** (ăl′oi′) *noun* A metal that is formed by mixing two or more other metals, or by combining a metal and a nonmetal. *verb* (ə-loi′) To combine metals to form an alloy. (From the Latin word *alligare*, meaning "to bind to") 1. _____

   Example Candlesticks are frequently made of brass, which is an *alloy* of zinc and copper.

2. **buoyant** (boi′ənt) *adjective* **a.** Capable of floating; able to keep other things afloat. **b.** Not easily depressed; cheerful. 2. _____

   Related Word **buoyancy** *noun*
   Example The *buoyant* raft bounced over the swirling rapids.

3. **celestial** (sə-lĕs′chəl) *adjective* **a.** Of or related to the sky or heavens. **b.** Heavenly or divine. (From the Latin word *caelum*, meaning "sky") 3. _____

   Example The astronomers tracked the *celestial* object carefully with their high-powered telescopes.

4. **coagulate** (kō-ăg′yə-lāt′) *verb* **a.** To change a liquid into a solid or nearly solid mass; clot. **b.** To become coagulated. (From the Latin *com-*, meaning "together," and *agere*, meaning "to bring") 4. _____

   Example Egg whites *coagulate* when they are cooked.

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5. **combustible** (kəm-bŭs′tə-bəl) *adjective* **a.** Capable of catching fire and burning; inflammable. **b.** Easily excited; quick to anger. (From the Latin word *combustus*, meaning "burnt up") 5. _____

Related Word **combustion** *noun*
Example Rags that have been soaked in turpentine are highly *combustible*.

6. **conflagration** (kŏn′flə-grā′shən) *noun* A large and destructive fire. (From the Latin word *conflagrare*, meaning "to burn up") 6. _____

Example In 1906 many blocks of buildings were destroyed by the *conflagration* that followed the San Francisco earthquake.

7. **dissection** (dĭ-sĕk′shən) *noun* **a.** The process of cutting apart a dead animal or plant to examine its internal structure. **b.** A detailed analysis or examination. (From the Latin *dis-*, meaning "apart," and *secare*, meaning "to cut") 7. _____

Related Word **dissect** *verb*
Example We noted the strong leg muscles of the frog we *dissected* in biology class.

8. **distill** (dĭ-stĭl′) *verb* To treat or purify a liquid by heating it until it forms a vapor and then cooling it so that it returns to liquid form. (From the Latin *de-*, meaning "down," and *stillare*, meaning "to drip") 8. _____

Related Word **distillation** *noun*
Example The engineers *distilled* gasoline from crude oil in their small laboratory.

9. **meteorology** (mē′tē-ə-rŏl′ə-jē) *noun* The science dealing with atmospheric conditions, especially weather conditions. (From the Greek word *meteōron*, meaning "astronomical phenomenon," and *logos*, meaning "speech") 9. _____

Related Words **meteorological** *adjective;* **meteorologist** *noun*
Example People who do research in *meteorology* believe that volcanic eruptions affect the weather.

10. **saturate** (săch′ə-rāt′) *verb* To cause to be thoroughly soaked; fill to capacity. (From the Latin word *satur*, meaning "full") 10. _____

Related Words **saturated** *adjective;* **saturation** *noun*
Example Rain had *saturated* the garden and killed all of the seedlings.

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NAME _____ DATE _____

EXERCISE 1 WRITING CORRECT WORDS

On the answer line, write the word from the vocabulary list that fits each definition.

1. Tending to float in a liquid; not easily depressed — 1. _____
2. Located in the sky or heavens — 2. _____
3. To treat or purify a liquid — 3. _____
4. The study of atmospheric conditions — 4. _____
5. To soak thoroughly or fill to capacity — 5. _____
6. A large, destructive fire — 6. _____
7. A mixture of two or more metals — 7. _____
8. To change a liquid into a solid mass; clot — 8. _____
9. The process of cutting apart to examine and study — 9. _____
10. Inflammable; easily excited — 10. _____

EXERCISE 2 USING WORDS CORRECTLY

Decide whether the italicized vocabulary word has been used correctly in the sentence. On the answer line, write *Correct* for correct use and *Incorrect* for incorrect use.

1. Doug was fascinated by the *celestial* creatures of the sea. — 1. _____
2. *Dissection* of the maps in geography class made them easier to study. — 2. _____
3. The towel was *saturated* before I had dried all the dishes. — 3. _____
4. In order to gain a better understanding of *meteorology*, Betty read a book on weaving. — 4. _____
5. A handshake confirmed the *alloy* between the boys. — 5. _____
6. The children were upset that their toy boat was not *buoyant*. — 6. _____
7. Grandfather *distills* tap water to make it purer for cleaning his contact lenses. — 7. _____
8. If *combustible* materials collect in a storage area, they may become a fire hazard. — 8. _____
9. Lucinda's *conflagration* was interrupted by her brother's singing. — 9. _____
10. The sauce has to be stirred constantly so that it will not *coagulate*. — 10. _____

EXERCISE 3 CHOOSING THE BEST DEFINITION

For each italicized vocabulary word in the following sentences, write the letter of the best definition on the answer line.

1. The insurance agent photographed what remained of the beach houses after the *conflagration*. — 1. _____
   a. storm b. large fire c. loud party d. earthquake

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2. The jewelry designer displayed necklaces made of a new *alloy*. 2. ____
   a. synthetic material
   b. mineral
   c. mixture of liquids
   d. mixture of metals

3. Roger is looking forward to the frog *dissection* scheduled for the final week of biology class. 3. ____
   a. test
   b. sketching and labeling
   c. cutting and examining
   d. review

4. Margot's interest in *meteorology* began when a heat wave damaged her lettuce crop. 4. ____
   a. agricultural study
   b. vegetable study
   c. weather study
   d. insect study

5. Jon has worked hard to control his *combustible* personality. 5. ____
   a. easily angered
   b. complex
   c. unpopular
   d. easily influenced

6. As part of the experiment, the scientist tested the rate at which blood *coagulates*. 6. ____
   a. flows b. clots c. burns d. is created

7. Our spirits were *buoyant* despite the terrible weather. 7. ____
   a. cheerful b. soaked c. confused d. depressed

8. My family spent the evening discussing *celestial* phenomena. 8. ____
   a. strange
   b. occurring on the earth
   c. ancient
   d. occurring in the sky

9. Rochelle *saturated* the sponge with soapy water before washing her car. 9. ____
   a. dampened b. covered c. soaked d. cleaned

10. The scientist could not obtain accurate results without *distilling* the liquids. 10. ____
    a. purifying b. removing c. combining d. stirring

EXERCISE 4 USING DIFFERENT FORMS OF WORDS

Decide which form of the vocabulary word in parentheses best completes the sentence. The form given may be correct. Write your answer on the answer line.

1. In 1871 a major _____ leveled much of the city of Chicago. *(conflagration)* 1 ____
2. Many students will _____ snakes and frogs in biology class. *(dissection)* 2 ____
3. Greg's gelatin failed to _____ because he added too much water. *(coagulate)* 3 ____
4. To cultivate flowers, the Dutch use fresh water that has been _____ from sea water. *(distill)* 4 ____
5. My ring is not pure gold; it is made from an _____. *(alloy)* 5. ____
6. The room seemed to be _____ with the spicy aromas of cinnamon and cloves. *(saturate)* 6. ____

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7. In a planetarium one can learn about _____.

8. Under certain conditions _____ takes place spontaneously—that is, it starts without a match or other external source. *(combustible)*

9. Janine is reading about unusual _____ events. *(meteorology)*

10. When Helda scuba-dives in salt water, she adds ten pounds of weight to control her _____. *(buoyant)*

READING COMPREHENSION