

# LESSON 3 THE ROOTS -GRAPH- AND -GRAM-

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The Greek root *-graph-* and its related form *-gram-* serve as the basis of many of our English words. In ancient Greek, the word *graphein* meant "to write." Therefore, words like *phonograph* and *photograph* can be translated as "writing in sound" and "writing in light." The Greek word *gramma*, which is related to *graphein*, means "letter" or "something written." Words like *diagram*, "sketch or drawing," and *grammar*, "the rules of language," are derived from the root *-gram-*. All the words in this lesson are from the roots *-graph-* and *-gram-*.

## WORD LIST

calligraphy  
cartography  
epigram  
graphic  
holography  
monogram  
monograph  
seismograph  
stenography  
typography

## DEFINITIONS

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

1. **calligraphy** (kə-līg'rə-fē) *noun* The art of fine handwriting; elegant and ornamental penmanship. (From the Greek words *kallos*, meaning "beauty," and *graphein*, meaning "to write")

**Related Word** **calligrapher** *noun*

**Example** Sara purchased a set of special pens for her *calligraphy* course.

1. \_\_\_\_\_

2. **cartography** (kär-tög'rə-fē) *noun* The science or technique of making maps or charts. (From the French word *carte*, meaning "map," and the Greek word *graphein*)

**Related Word** **cartographer** *noun*

**Example** *Cartography* requires scientists to survey Earth's surface.

2. \_\_\_\_\_

3. **epigram** (ěp'ī-grām') *noun* A short, clever saying or poem. (From the Greek *epi-*, meaning "on," and *gramma*, meaning "something written")

**Example** To emphasize the value of hard work, Benjamin Franklin created the *epigram* "Little strokes fell great oaks."

3. \_\_\_\_\_

4. **graphic** (grăf'ik) *adjective* a. Described in a clear, effective, and vivid manner. b. Referring to ways of printing words and pictures. (From the Greek word *graphein*)

**Related Words** **graphically** *adverb*; **graphics** *noun*

**Example** A *graphic* description of Dallas's skyline would help a person to visualize the scene.

4. \_\_\_\_\_

5. **holography** (hō-lŏg'ră-fē) *noun* A method of photography in which an image is recorded on a photographic plate or film by means of laser light. When the pattern on the plate or film is exposed to visible light, a three-dimensional image of an object or scene is formed. (From the Greek words *holos*, meaning "whole," and *graphein*)

**Example** The *holography* exhibit at the Science Museum featured realistic photographs of the brain.

5. \_\_\_\_\_

6. **monogram** (mŏn'ə-grăm') *noun* A design composed of one or more letters, usually the initials of a person's name. (From the Greek words *monos*, meaning "single," and *gramma*)

**Example** Kurt wore a shirt with his *monogram* on the pocket.

6. \_\_\_\_\_

7. **monograph** (mŏn'ə-grăf') *noun* A scholarly report on a single specialized subject. (From the Greek words *monos*, meaning "single," and *graphein*)

**Example** Professor Ames wrote a *monograph* on the symbolism in William Faulkner's novels.

7. \_\_\_\_\_

8. **seismograph** (sīz'mə-grăf') *noun* An instrument that measures and records the earth's vibrations. (From the Greek words *seismos*, meaning "earthquake," and *graphein*)

**Related Words** *seismographic adjective; seismography noun*

**Example** *Seismographs* help to warn us of earthquakes.

8. \_\_\_\_\_

9. **stenography** (stə-nŏg'ră-fē) *noun* A method of rapid handwriting in which symbols represent letters, words, and phrases; shorthand. (From the Greek words *stenos*, meaning "narrow," and *graphein*)

**Related Words** *stenographer noun; stenographic adjective*

**Example** Court reporters once used *stenography* to record every word spoken at a trial.

9. \_\_\_\_\_

10. **typography** (tī-pŏg'ră-fē) *noun* The appearance of printed material. Typography refers to the style, size, and spacing of letters set in type and to the arrangement of words on the printed page. (From the Greek words *typos*, meaning "impression," and *graphein*)

**Related Words** *typographer noun; typographical adjective*

**Example** Styles of *typography* have changed greatly in the last hundred years.

10. \_\_\_\_\_



NAME \_\_\_\_\_

DATE \_\_\_\_\_

**EXERCISE 1 WRITING CORRECT WORDS**

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

1. Fine handwriting; ornamental penmanship 1.
2. Described in a vivid manner; referring to techniques used to reproduce words and pictures 2.
3. A scholarly study on a specialized subject 3.
4. An instrument for measuring earthquake vibrations 4.
5. The appearance of a printed page 5.
6. Mapmaking 6.
7. Shorthand writing 7.
8. A design composed of one or more initials 8.
9. A short, clever saying or poem 9.
10. A process in which a three-dimensional image is created by the intersecting beams of a laser 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. Some computer software can create charts, drawings, and other *graphic* displays. 1.
2. Mr. Brady was very particular about the *typography* of the menu for his restaurant. 2.
3. Eduardo had to take a course in *cartography* before he could teach English. 3.
4. One of the tests a doctor uses to diagnose illness is an *epigram*. 4.
5. Archie hoped that a *stenography* course would help him to take better class notes. 5.
6. Sabrina used a *seismograph* to draw animals. 6.
7. Betty addressed the wedding invitations in *calligraphy*. 7.
8. Tyler received a ring with his *monogram* on it. 8.
9. Winifred observed the stars through a large *monograph*. 9.
10. The electrician repaired the wiring by using *holography*. 10.

### EXERCISE 3 CHOOSING THE BEST WORD

Decide which vocabulary word or related form best completes the sentence. Write the letter of that word on the answer line.

1. The author used a(n) \_\_\_\_\_ to begin each chapter.  
a. epigram      b. cartography      c. seismograph      d. holography
2. A bold \_\_\_\_\_ design makes a good trademark.  
a. epigram      b. stenographic      c. graphic      d. seismographic
3. \_\_\_\_\_ is a type of photography.  
a. Typography      b. Stenography      c. Calligraphy      d. Holography
4. The use of some symbols from \_\_\_\_\_ enabled Siobhan to take notes quickly in class.  
a. stenography      b. seismography      c. typography      d. cartography
5. The \_\_\_\_\_ of a newspaper may be changed to give it a new look.  
a. calligraphy      b. cartography      c. seismography      d. typography
6. Stores often include a free \_\_\_\_\_ on bath towels.  
a. epigram      b. monogram      c. monograph      d. seismograph
7. New land-surveying techniques have improved \_\_\_\_\_.  
a. stenography      b. cartography      c. calligraphy      d. seismography
8. The readings on the \_\_\_\_\_ indicated that a major volcanic eruption was likely to occur.  
a. seismograph      b. monogram      c. monograph      d. epigram
9. The art teacher wrote each student's name in \_\_\_\_\_ on the certificates.  
a. typography      b. stenography      c. calligraphy      d. cartography
10. The professor's \_\_\_\_\_ on solar energy was published recently.  
a. monogram      b. hologram      c. seismograph      d. monograph

### 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. One should always proofread for \_\_\_\_\_ errors. (*typography*)
2. Early \_\_\_\_\_ had to draw maps by hand. (*cartography*)
3. The \_\_\_\_\_ readings indicated that the earthquake's aftershocks continued for two days. (*seismograph*)
4. The judge asked the court \_\_\_\_\_ to read the witness's answer. (*stenography*)
5. It takes much practice to become a good \_\_\_\_\_. (*calligraphy*)
6. Cynthia designs computer \_\_\_\_\_. (*graphic*)
7. The small publishing company printed only \_\_\_\_\_. (*monograph*)
8. She needs a secretary with excellent \_\_\_\_\_ skills. (*stenography*)
9. The nature exhibit \_\_\_\_\_ displayed the splendor of the wildlife areas. (*graphic*)
10. Laser \_\_\_\_\_ has recently become common in industry. (*holography*)
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