Word-Part Detectives

Use roots and affixes to unlock science vocabulary.

ELA.5.V.1.2 "Apply knowledge of Greek and Latin roots and affixes, recognizing the connection between affixes and parts of speech, to determine the meaning of unfamiliar words in grade-level content."

NAME _____ DATE _____

1 READ AND MARK

Read it twice

YOUR JOB Underline the root and circle each prefix or suffix in words that have them. Write n., v., adj., or adv. above each marked word to show its part of speech.

Watching Underwater Volcanoes

1. On a research ship, scientists study submarine volcanoes, mountains that rise from the ocean floor. A small robot travels downward and records temperature, pressure, and changes in the water. Its instruments send a transmission of information to the ship. This careful observation helps the team notice signs of an eruption before it begins far below.

2. Volcanoes can be inactive for many years, but they may become active again. When melted rock moves upward, it can form new seafloor. After an eruption, underwater robots photograph the area repeatedly. The images allow geologists to compare old and new surfaces. They can see whether lava has covered animals or created places where tiny organisms may settle.

3. Scientists share their results with coastal communities. A prediction about an eruption cannot tell the exact day, but it can help people prepare. For example, maps may identify islands that could receive ash. Researchers also explain the results clearly, so families understand possible changes. Their work improves safety and adds to knowledge about Earth's powerful systems.

2 ANSWER WITH EVIDENCE

Use the passage

1. In paragraph 1, the Latin root mar means "sea," and sub- means "under." What does submarine mean, and what part of speech is it as used in the passage?

2. In paragraph 1, what does transmission mean in the sentence about instruments? Which suffix helps show that transmission is a noun?

3. In paragraph 2, what does inactive mean? How does the suffix -ive help you identify its part of speech?

4. In paragraph 2, the Greek root geo means "earth," and -ist can mean "a person who studies or works with something." What are geologists, and what part of speech is the word?

3 YOUR TURN

Your own words

Write one science sentence using a word with a Greek or Latin root and an affix that does not appear in the passage. Underline its root, circle its affix, then state the word's meaning and part of speech.

ANSWER KEY

Word-Part Detectives

GRADE 5 · ELA.5.V.1.2

PART 1 · READ AND MARK

Underline the root and circle each prefix or suffix in words that have them. Write n., v., adj., or adv. above each marked word to show its part of speech. Accept any marking that follows this job and points at the right text.

PART 2 · ANSWERS

#	QUESTION	ANSWER
1	In paragraph 1, the Latin root mar means "sea," and sub- means "under." What does submarine mean, and what part of speech is it as used in the passage?	**It means under the sea, and it is an adjective describing volcanoes.**
2	In paragraph 1, what does transmission mean in the sentence about instruments? Which suffix helps show that transmission is a noun?	**It means the sending of information. The suffix is -sion.**
3	In paragraph 2, what does inactive mean? How does the suffix -ive help you identify its part of speech?	**It means not active. The suffix -ive helps show that it is an adjective.**
4	In paragraph 2, the Greek root geo means "earth," and -ist can mean "a person who studies or works with something." What are geologists, and what part of speech is the word?	**Geologists are people who study Earth and its materials. The word is a noun.**

PART 3 · YOUR TURN (SAMPLE ANSWER)

The portable weather station measured wind speed. I would underline port and circle -able. Portable means able to be carried, and it is an adjective.

Accept any accurate science sentence with a new word that includes a Greek or Latin root and an affix. The student should correctly identify the root, affix, meaning, and part of speech.