What Are Plants?

Roots (rüts) the parts of a plant that generally grow underground, anchor the plant in the soil, and absorb the water and minerals a plant needs to grow

Stem (stem) the main part of a plant that provides support to the plant and transports fluids between the roots and the leaves; a plant's leaves and flowers grow out of the stem

Leaves (lēvs) the parts of green plants where food is produced and where food and water are stored

Using SCIENCE Words

Which vocabulary word best completes the sentence below?

1. A plant's _____ keep it anchored in the ground.
   A. roots
   B. stems
   C. leaves

1 Every living organism is made of cells. Cells are very tiny parts that perform special functions. Cells join together to form tissues. Tissues work together to form organs in plants and animals. Tissues and organs perform functions to keep the organism alive. Most plants have leaves, stems, and roots. These parts work together to perform the plant's life functions.

2 **Roots** perform many important functions for a plant. Roots generally grow underground. They anchor the plant in the soil. Roots also absorb the water and nutrients a plant needs to grow.

3 Nutrients are substances used by living organisms for growth and survival. Minerals are nutrients. Roots carry water and minerals to the stems of the plant. Some plant roots also store food for the plant.

4 Some plants have one main root with tiny roots connected to it. A carrot plant is an example. Other plants, such as trees, have a network of roots that reach out into the soil in different directions.

5 **Stems** also perform many functions for a plant. Leaves and flowers grow out of stems. Stems also support the leaves and flowers. Stems allow water and nutrients to move from the roots to the leaves. They also help move food made in the leaves to other parts of the plant.

6 All stems do not look alike. A tree's stem is its trunk. A dandelion's stem has a flower at the top. Tulips and daffodils also have flowers at the tops of their stems.

7 **Leaves** are the parts that produce the food that green plants need to survive. Leaves take in carbon dioxide from the air as part of the food-making process. Oxygen and water produced during the food-making process are released through a plant's leaves. The oxygen and water enter the air in the form of a gas called water vapor.

8 Leaves vary in size and shape. Some leaves, such as those of maple trees, are thin, flat, and wide. They have a large surface to take in light. Other plants, such as pine trees, have leaves that are hard, spiky needles. These types of leaves protect the plant from hungry animals. Leaf-eating animals usually cannot eat needles.

9 The shape and structure of its leaves can help a plant conserve water. Plants such as the sequoia have tiny leaves that are like scales. These leaves fit tightly on the stem and help reduce water loss.

10 Even though plants may look very different, they all need the same things to survive. Although one plant's roots, stems, and leaves look different from those of another plant, they all perform the same functions.

COMPREHENSION

Write the letter of the best answer.

2. Which statement best states the main idea of this selection?
   a. The roots, stems, and leaves of a plant work together to help the plant survive.
   b. All plant structures perform the same tasks.
   c. Like all organisms, plants need certain things to survive.
3. Which of these statements is **not** true?
   a. Some plants' roots store food.
   b. Roots make food for plants.
   c. Roots take water and minerals from soil.
4. Minerals are _____.
   a. energy
   b. nutrients
   c. water
5. Which of the following statements is true?
   a. The leaves of green plants give off carbon dioxide into the air.
   b. Energy from the sun is stored in the stem of a plant.
   c. Food for a plant is made in the leaves.
6. _____ **not** used by a plant to make food.
   a. Roots are
   b. Sunlight is
   c. Water is

LEARN ABOUT WORDS

A. Look at each number in parentheses. Find the paragraph in the reading with the same number. Then find the word that fits the given meaning. Write the word.

7. anchor a plant in the soil and absorb water and nutrients (2)
8. substances used by living things for growth and good health (3)
9. structure which allows water and nutrients to move to the leaves (5)
10. structures that produce food for green plants (7)

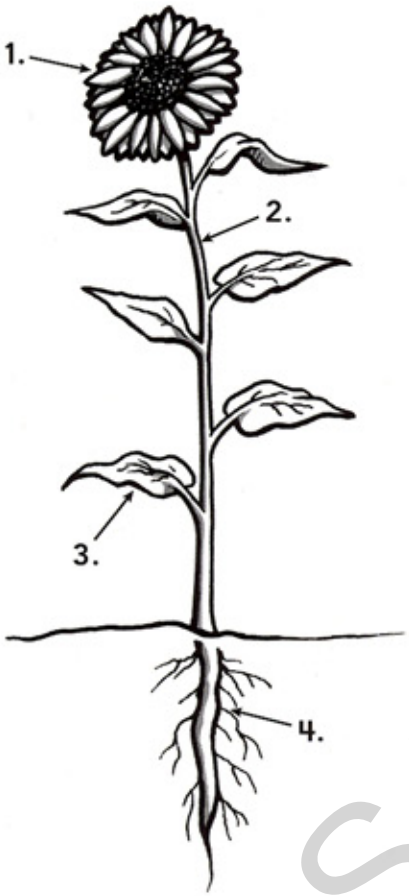
B. The **doctor** smiled at **Joe.** (persons)
Jungles in **Peru** are hot. (places)
This **car** needs **oil.** (things)

The words above in **bold type** are nouns. A noun is a word that indicates a person, place, or thing. Each phrase below has one noun. Write the noun.

11. flat, wide leaf
12. carrots are good
13. Darcel is tired
14. absorb more water
15. bright sunlight
16. rainy day

Think about It

Look at the drawing of a green plant. Answer the questions.



17. Which arrow shows the part of the plant that gathers sunlight and produces food?
    A. 1
    B. 2
    C. 3
    D. 4
18. Which arrow shows the part of the plant that takes in nutrients and holds the plant in the ground?
    A. 1
    B. 2
    C. 3
    D. 4

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Using SCIENCE Words

1. A

Comprehension

2. a
3. b
4. b
5. c
6. a

Learn About Words

A. 7. roots
8. nutrients
9. stems
10. leaves

B. 11. leaf
12. carrots
13. Darcel
14. water
15. sunlight
16. day

Think About It

17. C
18. D

Writing About Science

Plants release oxygen into the air. Humans need oxygen to live. Write a paragraph explaining three reasons plants are important to humans.