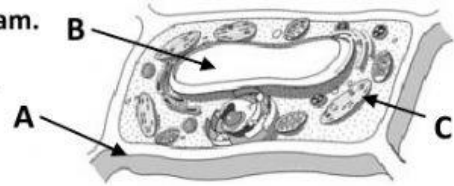


Name: _____ Date: _____ Period: _____

Homework: Plant Systems

Answer the following questions using the plant cell diagram.

1. Which letter is labeling the central vacuole? _____
2. Which letter is labeling the chloroplast? _____
3. Which letter is labeling the cell wall? _____



For each statement below, place the organ system in that blank that is related to the statement:

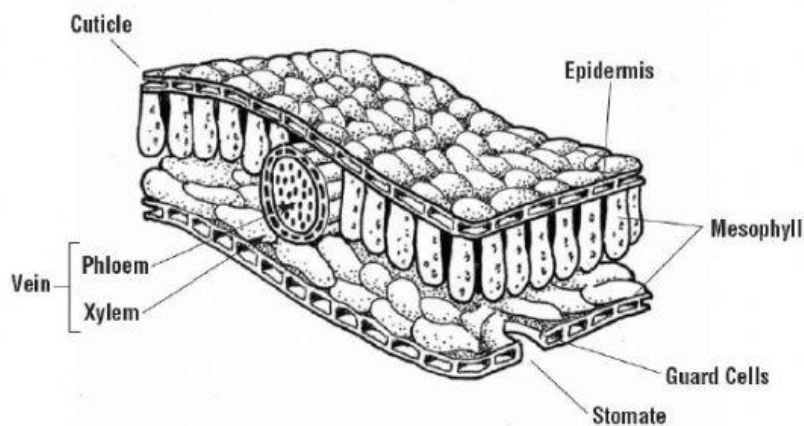
ROOT

STEM

LEAF

- _____ 4. This organ is responsible for absorbing sunlight.
- _____ 5. This organ is responsible for absorbing water.
- _____ 6. This organ helps support the leaves and flowers of a plant.
- _____ 7. This organ is covered in stomata for gas transfers.
- _____ 8. This organ is responsible for absorbing nutrients like nitrogen.
- _____ 9. This organ has vascular tissue to distribute water throughout the plant.

Leaf Tissue



10. Which part of the leaf carries water through the leaf? _____
11. What part of the leaf allows gases to enter and exit the leaf? _____
12. Which part of the leaf distributes organic nutrients like sugar? _____
13. What part of the leaf is a waxy covering that prevents water loss? _____
14. Which part of the leaf controls the size of the stoma? _____

Use your notes to complete the following questions about plants.

1. Which gas is *absorbed* by plants in order to perform photosynthesis?

- A oxygen B nitrogen C carbon dioxide D helium

2. Which gas is *released* from plants as a result of performing photosynthesis?

- A oxygen B nitrogen C carbon dioxide D helium

3. The gases being released and absorbed from the plant are coming out of tiny holes in the leaves. What are these tiny holes called?

- A cuticles B xylem C stomata D phloem

4. Plants absorb solar energy during photosynthesis. This energy is converted to what form?

- A mechanical B chemical C kinetic D electrical

5. To prevent water from evaporating from its leaves, a plant will keep its stomata closed during the heat of the day. What cells regulate this process by controlling the size of stomata?

- A gamete cells B guard cells C root cells D vascular cells

6. What is the primary function of xylem tissue inside a vascular plant?

- A absorbing nitrogen from the soil C absorbing solar energy
B producing seeds for new plants D distributing water and minerals

7. The root word *synthesis* means "*to create*". Based on your vocabulary reference sheet, what energy source is used by plants which provides the reason for the prefix *photo-* in the word photosynthesis?

- A water B oxygen C light D heat

8. Which organelle allows a plant to perform the process of photosynthesis?

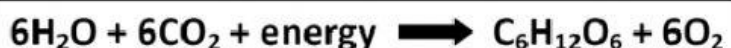
- A Golgi apparatus B nucleus C mitochondria D chloroplast

9. Which of the following sets of plant organs would be used during plant reproduction?

- A flowers and cones C roots and flowers
B stems and cones D leaves and stems

10. Which of the following functions is *not* carried out by the root system of a plant?

- A absorbing water from the soil C storing energy for later use
B producing food for the plant D anchoring the plant in the ground



Using the chemical equation above, write a brief description of photosynthesis.
