

Plant structure and function



Name_____ Date____



A chewing insect damages the **vascular tissue** of a plant stem. This damage will most directly affect the

- A excretion of carbon dioxide by root cells
- B conduction of water and minerals between the roots and leaves
- C synthesis of auxins in the roots
- D diffusion of oxygen between root cells



Which statement correctly describes a characteristic of **cells** in the **stems** of plants?

- A They exchange gases through stomates.
- **B** They exchange gases by diffusion directly between the cells and root hairs.
- **C** They carry on photosynthesis and do not exchange gases.
- They carry on respiration and exchange gases through lenticels.



5

Leaves at the top of a giant redwood tree receive water from the

- A vascular tissue in the branches, trunk, and roots
- B epidermal cells in the trunk



Gases move into intercellular spaces in leaves through openings known as

- A stomates
- **B** lenticels





PREVIEW



Please <u>Sign In</u> or <u>Sign Up</u> to download the printable version of this worksheet

- B both carbon dioxide and oxygen
- C oxygen, only
- neither carbon dioxide nor oxygen

- gas exchange
- **B** store food for winter dormancy
- c undergo mitotic cell division
- D give support to the veins in the leaf



In most plants, specialized epidermal cells which absorb water and minerals are found in the

- A roots
- **B** stems
- C lenticels
- **D** flowers





The exchange of oxygen and carbon dioxide between internal leaf cells and the external environment will occur most efficiently if

- A the surfaces of these cells are dry and the stomates are closed
- B these cells are dry and the stomates are open
- **c** the surfaces of these cells are moist and the stomates are open
- **D** the cells are moist and the stomates are closed



Plant structure and function - Answer Key

BIO

Name ₋		_ Class	Date	
1	A chewing insect damages the vascular tissue of a plant stem. This damage will most directly affect the A excretion of carbon dioxide by root cells B conduction of water and minerals between the roots and leaves C synthesis of auxins in the roots D diffusion of oxygen between root cells		 Which statement correctly describes a characteristic of cells in the stems of plants? A They exchange gases through stomates. B They exchange gases by diffusion directly between the cells and root hairs. C They carry on photosynthesis and do not exchange gases. D They carry on respiration and exchange gases through lenticels. 	D
3	Leaves at the top of a giant redwood tree receive water from the A vascular tissue in the branches, trunk, and roots B epidermal cells in the trunk	4 4	Gases move into intercellular spaces in leaves through openings known as A stomates B lenticels	A
5	PRE	VIEW		A
7	Please Sign In or the printable vers B both carbon dioxide and oxygen C oxygen, only D neither carbon dioxide nor oxygen			A
9	In most plants, specialized epidermal cells which absorb water and minerals are found in the A roots B stems C lenticels D flowers		The exchange of oxygen and carbon dioxide between internal leaf cells and the external environment will occur most efficiently if A the surfaces of these cells are dry and the stomates are closed B these cells are dry and the stomates are open C the surfaces of these cells are moist and the stomates are open D the cells are moist and the stomates are closed	C