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Xylem Homework

9.1.U1

Which gases are involved in transpiration?

Explain how transpiration is both a benefit and a disadvantage to a plant.

What are stomata, where are they found and how do they relate to transpiration?

Explain how water levels in a plant affect guard cells and how that affects the plant as a whole?

9.1.U2

What does the term vascular tissue mean? Give an example of vascular tissue in both a plant and an animal.

Discuss two properties of water that aide xylem in moving water up a plant.

How does transpiration relate to water movement in the xylem?

9.1.U3

Describe the structure of xylem tubes, and how the shape is adapted to its function.

9.1.U4

What happens to liquid water at the top of a xylem tube?

Explain how plants generate tension, what turgid means, and how that affects plant height.

9.1.U5

Explain both the active transport and passive transport aspects of water movement in the xylem (starting at the roots and ending at the leaves).

Explain how a concentration gradient is created in the roots, and why that is necessary. List at least one mineral used by plants to create a concentration gradient.

Discuss how fungi affect water absorption in some plants.

9.1.A1

List 5 adaptations desert/saline soil plants have to survive in their environments.

Draw a picture of a leaf that would likely lose a lot of water from transpiration, compared to one that would not lose much. Label anything you feel necessary.