

Name \_\_\_\_\_

## The Green Powerhouses: Unveiling the Role of Leaves in Plants

### Short Answer Key

1. Photosynthesis is the process by which plants convert light energy into chemical energy, primarily occurring in the chloroplasts of leaves.
2. Stomata are tiny pores located on the underside of leaves, facilitating gas exchange by allowing carbon dioxide to enter the leaf and oxygen to exit.
3. Leaves regulate a plant's hydration levels through transpiration, water storage, and the transport of water absorbed by the roots.
4. Leaf arrangement maximizes sunlight absorption by optimizing the exposure of leaves to sunlight while minimizing shading among neighboring leaves.
5. Chlorophyll is essential for photosynthesis in leaves because it absorbs sunlight and initiates the conversion of light energy into chemical energy.

