

## Study Guide for Plant Test

Word	√	Definition
photosynthesis		The process in which plants make their own food using light, water and carbon dioxide, producing glucose (sugar) and oxygen.
stomata		Openings in leaves that allow carbon dioxide in and oxygen out.
flower		Contains a pistil and stamen to produce and transport pollen so pollination can occur and new seeds form
glucose		The sugar produced in photosynthesis; used as food for the plant, can be changed to starch.
chlorophyll		The green coloring in plant leaves that traps light energy and helps the chemical reaction of photosynthesis to occur.
stages of life cycle of a flowering plant		The plant begins as a seed, germinates to form roots, is a sprout (seedling), plant growth with leaves, produces flower buds that becomes flowers that must be pollinated, then fruit or seed pods form. Seed dispersal allows new plants to grow.
roots		Three jobs: absorb water from the soil, hold the plant in place, and absorb minerals.
germination		The process in which a seed softens in soil and has a root begin to grow, the start of a new plant.
pollination		The process in which a pollinator transfers pollen from the anther of one flower to the stigma of a different plant's flower.
xylem		Tube-like tissue that carries water and nutrients to every part of a plant; always flows upwards.
phloem		Tube-like tissue that carries sugar to every part of a plant; can flow downward and flow upward to reach all parts of the plant.
transpiration		The process in which leaves pull water up through the plant, by evaporating water off the leaves and pulling more up to replace it.
tropism		<p>The turning of a living thing in a particular direction, in response to a stimulus.</p> <ul style="list-style-type: none"> <li>• Geotropism – Plant grows in response to gravity (roots grow down; stem grows up).</li> <li>• Hydrotropism – Plant grows toward water (like roots growing toward moisture).</li> <li>• Phototropism – Plant grows toward light (helps leaves get best position to get light for photosynthesis to occur).</li> </ul>

### Review Questions

1. Describe the life cycle of a plant.
2. Why is photosynthesis important to a plant?
3. What do plants need to survive?
4. Explain why the direction of geotropism is usually downward.
5. Why is phototropism and hydrotropism important abilities to a plant?
6. Describe transpiration.
7. Compare and contrast xylem and phloem.
8. What are stomata and why are they helpful?
9. Why are bees so important to humans?
10. Describe the parts of a plant. Which is most important and why?