

Middle School Botany Essentials

Botany · Answer Key · 10 Questions

1. Which organelle is the primary site of photosynthesis in plant cells?

- A) Mitochondria
- B) Chloroplast**
- C) Ribosome
- D) Nucleus

2. What is the primary function of the xylem in vascular plants?

- A) Transporting water and minerals**
- B) Producing glucose
- C) Storing starch
- D) Absorbing sunlight

3. Which plant process involves the release of water vapour through the stomata?

- A) Respiration
- B) Photosynthesis
- C) Transpiration**
- D) Germination

4. What substance provides structural support to plant cell walls?

- A) Chitin
- B) Glycogen
- C) Cellulose**
- D) Protein

5. Which part of a flowering plant is responsible for the production of pollen?

- A) Stigma
- B) Ovary
- C) Anther**
- D) Sepal

6. What is the chemical equation for photosynthesis represented by?

- A) Water + Oxygen -> Glucose + Carbon Dioxide
- B) Carbon Dioxide + Water -> Glucose + Oxygen**
- C) Glucose + Oxygen -> Carbon Dioxide + Water
- D) Nitrogen + Water -> Glucose + Oxygen

7. Which group of plants reproduces using seeds but does not produce flowers or fruit?

- A) Bryophytes
- B) Angiosperms
- C) Gymnosperms**
- D) Pteridophytes

8. What is the waxy outer layer of a leaf that helps prevent water loss called?

- A) Cuticle**
- B) Stoma
- C) Mesophyll
- D) Petiole

9. Which plant hormone is primarily responsible for fruit ripening?

- A) Auxin
- B) Gibberellin
- C) Ethylene**
- D) Cytokinin

10. In which part of the plant does the majority of photosynthesis occur?

- A) Roots
- B) Stems
- C) Flowers
- D) Leaves**