

Introductory Biology & Nature Facts

Advanced Biology · Answer Key · 15 Questions

1. Which organelle in plant cells is responsible for carrying out photosynthesis?

- A) Mitochondrion
- B) Chloroplast**
- C) Ribosome
- D) Golgi apparatus

2. What primary gas do green plants absorb from the atmosphere to perform photosynthesis?

- A) Oxygen
- B) Nitrogen
- C) Carbon dioxide**
- D) Hydrogen

3. Which group of animals contains the only mammals capable of true, sustained flight?

- A) Flying squirrels
- B) Bats**
- C) Sugar gliders
- D) Flying lemurs

4. What is the largest known animal species ever to exist on Earth?

- A) African elephant
- B) Blue whale**
- C) Colossal squid
- D) Giraffe

5. What biological term describes animals that maintain a constant internal body temperature?

- A) Ectotherms
- B) Endotherms**
- C) Heterotherms
- D) Poikilotherms

6. What primary ecological role do fungi play in a terrestrial ecosystem?

- A) Primary producers
- B) Decomposers**
- C) Apex predators
- D) Herbivores

7. Which pigment is primarily responsible for absorbing light energy during photosynthesis in green plants?

- A) Carotenoid
- B) Anthocyanin
- C) Chlorophyll**
- D) Xanthophyll

8. What is the process called when an insect undergoes a structural transformation from larva to adult?

- A) Ecdysis
- B) Metamorphosis**
- C) Binary fission
- D) Gestation

9. What is the upper layer of an ocean where sunlight penetrates enough for photosynthesis to occur?

- A) Aphotic zone
- B) Abyssal zone
- C) Photic zone**
- D) Hadal zone

10. Animals that possess a spinal cord encased in a vertebral column belong to which group?

- A) Invertebrates
- B) Vertebrates**
- C) Arthropods
- D) Molluscs

11. What type of symbiotic relationship exists when both participating species benefit from the interaction?

- A) Parasitism
- B) Commensalism
- C) Mutualism**
- D) Competition

12. Which vascular plant tissue is specifically responsible for transporting water and dissolved minerals upwards from roots?

- A) Phloem
- B) Xylem**
- C) Cambium
- D) Epidermis

13. What tough structural polysaccharide makes up the exoskeleton of insects and crustaceans?

- A) Cellulose
- B) Keratin
- C) Chitin**
- D) Collagen

14. What is the term for gas exchange occurring directly through an animal's moist skin, as seen in many amphibians?

- A) Pulmonary respiration
- B) Cutaneous respiration**
- C) Gill respiration
- D) Tracheal respiration

15. Which cellular structure serves as the primary site of cellular respiration and ATP generation in eukaryotic cells?

- A) Mitochondrion**
- B) Lysosome
- C) Endoplasmic reticulum
- D) Nucleolus