

Middle School Agriculture Fundamentals

Agriculture · Answer Key · 20 Questions

1. Which process do plants use to convert sunlight, water, and carbon dioxide into glucose?

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

2. What is the primary purpose of applying nitrogen-based fertilizers to soil?

- A) To increase soil acidity
- B) To prevent weed growth
- C) To promote leaf and stem growth**
- D) To improve drainage

3. Which of the following is considered a 'cereal' grain crop?

- A) Potato
- B) Wheat**
- C) Soybean
- D) Cotton

4. What is the practice of planting different crops in the same area across sequential seasons called?

- A) Crop rotation**
- B) Monoculture
- C) Hydroponics
- D) Deforestation

5. Which soil component is formed primarily from the breakdown of organic matter like leaves and animal waste?

- A) Silt
- B) Clay
- C) Humus**
- D) Sand

6. In livestock farming, what does the term 'ruminant' describe?

- A) Animals that lay eggs
- B) Animals with a multi-chambered stomach**
- C) Animals that only eat meat
- D) Animals that live exclusively in water

7. Which agricultural technology uses sensors and GPS to monitor field variability?

A) Precision agriculture

- B) Vertical farming
- C) Organic farming
- D) Permaculture

8. What is the main function of the stamen in a flowering plant?

A) To produce pollen

- B) To produce seeds
- C) To absorb water
- D) To attract bees

9. Which nutrient is typically associated with root development and flower production?

A) Nitrogen

B) Phosphorus

- C) Carbon
- D) Oxygen

10. What is the term for the large-scale cultivation of a single crop species in a given area?

A) Polyculture

B) Monoculture

- C) Agroforestry
- D) Intercropping

11. Which type of irrigation is most efficient at delivering water directly to the plant's root zone?

A) Flood irrigation

B) Drip irrigation

- C) Sprinkler irrigation
- D) Furrow irrigation

12. What is the primary role of legumes in a crop rotation system?

A) To fix nitrogen in the soil

- B) To kill harmful bacteria
- C) To increase soil salinity
- D) To prevent soil erosion

13. Which of these is a non-renewable resource that is essential for long-term agricultural production?

- A) Topsoil**
- B) Solar energy
- C) Wind power
- D) Water

14. What is the process of removing the outer coat of a seed to encourage germination?

- A) Scarification**
- B) Stratification
- C) Pollination
- D) Transplanting

15. Which agricultural pest control method involves using natural predators to manage harmful insect populations?

- A) Biological control**
- B) Chemical control
- C) Mechanical control
- D) Cultural control

16. What is the primary greenhouse gas often associated with livestock digestive processes?

- A) Oxygen
- B) Methane**
- C) Argon
- D) Nitrogen

17. Which of the following is an example of a perennial crop?

- A) Wheat
- B) Corn
- C) Apple tree**
- D) Lettuce

18. What is the main purpose of 'mulching' in gardening and farming?

- A) To reduce soil temperature
- B) To prevent weed growth and retain moisture**
- C) To add high concentrations of salt
- D) To increase the number of pests

19. Which part of the plant is responsible for absorbing water and minerals from the soil?

- A) Stem
- B) Leaves
- C) Roots**
- D) Flower

20. What does the term 'pH' measure in the context of soil science?

- A) Soil temperature
- B) Soil moisture content
- C) Soil acidity or alkalinity**
- D) Soil nutrient density