Quiz: Cycles of Matter and Energy Transfer

Part A: Fill in the Blank
Directions: Use the words from the word bank to complete the sentences. Each word will be used once.

Word Bank

photosynthesis consumers water decomposers carbon dioxide
nitrogen sun food chain oxygen producers

1. The primary source of energy for most ecosystems is the _____.
2. Plants use sunlight, water, and carbon dioxide during _____.
3. Green plants are called _____ because they make their own food.
4. Animals that eat plants or other animals are called _____.
5. Organisms such as fungi and bacteria that break down dead matter are called _____.
6. During photosynthesis, plants release _____ into the atmosphere.
7. The gas taken in by plants during photosynthesis is _____.
8. The _____ cycle moves water through evaporation, condensation, and precipitation.
9. A _____ shows how energy moves from one organism to another.
10. The _____ cycle is important because it helps plants build proteins.

Part B: Multiple Choice: Directions: Circle the best answer for each question.

11. Which process transfers energy from the Sun to plants?
    - Respiration
    - Photosynthesis
    - Decomposition
    - Evaporation

12. Which organisms are at the beginning of most food chains?
    - Consumers
    - Decomposers
    - Producers
    - Predators

13. What happens to energy as it moves through a food chain?
    - It increases at each level.
    - It stays the same.
    - It decreases at each level.
    - It disappears completely.

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14. Which cycle involves the movement of carbon through the atmosphere, plants, animals, and soil?
    - Water Cycle
    - Nitrogen Cycle
    - Carbon Cycle
    - Rock Cycle

15. Which process returns nutrients to the soil?
    - Photosynthesis
    - Decomposition
    - Evaporation
    - Condensation

16. What role do decomposers play in ecosystems?
    - They make their own food.
    - They provide sunlight.
    - They recycle nutrients.
    - They produce oxygen.

17. Which of the following is an example of a consumer?
    - Grass
    - Oak Tree
    - Mushroom
    - Rabbit

18. During the nitrogen cycle, plants obtain nitrogen primarily from:
    - The Sun
    - The Soil
    - The Ocean
    - The Air Directly

19. Which process changes liquid water into water vapor?
    - Condensation
    - Precipitation
    - Evaporation
    - Collection

20. Why is energy flow different from matter cycles?
    - Energy is recycled continuously.
    - Matter is lost forever.
    - Energy flows in one direction while matter is recycled.
    - Matter does not move through ecosystems.

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