Understanding Matter and Energy Flow in Organisms

Organisms need both matter and energy to survive. Plants, for example, get their energy from the Sun and use it to make food through a process called photosynthesis. Animals, on the other hand, get their energy by eating plants or other animals. In this worksheet, you will explore how different organisms obtain matter and energy and how these elements flow through ecosystems.

Fill in the Blank: Fill in the blank with the correct words.

1. Plants obtain energy from the ___ to make their own food.
2. Animals get their energy and matter by ___ plants or other animals.
3. The process by which plants make food using sunlight is called ___.
4. When animals eat plants, they are consuming stored ___.
5. Decomposers break down dead organisms to return ____ to the soil.

Word bank:

- energy
- eating
- sunlight
- photosynthesis
- matter

Multiple Choice Questions: Choose the correct answer from the choices for each question.

1. What is the primary source of energy for plants?
    - a) Water
    - b) Soil
    - c) Sunlight
    - d) Air

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2. What do animals primarily consume to get energy?

   - a) Rocks
   - b) Plants and other animals
   - c) Water
   - d) Sunlight

3. What role do decomposers play in an ecosystem?

   - a) Produce energy
   - b) Break down dead organisms
   - c) Provide sunlight
   - d) Pollinate flowers

4. What is the process called when plants convert sunlight into food?
   - a) Respiration
   - b) Decomposition
   - c) Photosynthesis
   - d) Digestion

5. Which of the following is NOT a source of energy for animals?
   - a) Plants
   - b) Other animals
   - c) Sunlight
   - d) Decomposers

Open-Ended Questions: Answer the following questions in complete sentences.

1. Explain how energy from the Sun is used by plants and then transferred to animals.
2. Describe the role of decomposers in the flow of matter through an ecosystem.
3. Why is it important for ecosystems to have both producers and consumers?

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