Content Check

Read and answer the questions below.

1. After an organism eats a food molecule, what happens to the particles that make up the food molecule?

2. Which statement about the energy organisms get from food molecules is correct?

- a) The food molecules are broken down into energy an organism uses to live.
- b) Organisms grow larger using the energy they get from food molecules.
- c) After an organism uses the energy it gets from food, the energy flows into other organisms.
- 3. Mark the following three statements as either true or false. If the statement is false, explain why.

___ Food molecules release energy when they break apart.

____ New molecules are made after food is broken down.

_ Food molecules turn into energy.



Bioenergy Engineer: Alternative Energy

Content Check Teacher Key

1. After an organism eats a food molecule, what happens to the particles that make up the food molecule? The food molecule is broken down. Energy is released as this happens. The particles in the food are rearranged into new (smaller) molecules.

2. Which statement about the energy organisms get from food molecules is correct?

b) Organisms grow larger using the energy they get from food molecules.

3. Mark the following three statements as either true or false. If the statement is false, explain why.

T Food molecules release energy when they break apart.

T New molecules are made after food is broken down.

<u>F</u> Food molecules turn into energy. (Reasoning: Molecules do not turn into energy. When food is broken down, energy is released and new, smaller molecules are made from the atoms that made up the food molecules. The smaller molecules require less energy to hold them together, so there is a net loss of energy, but no loss of matter. The energy released from food molecules is the energy holding the bonds together in the food molecules, also known as chemical energy.)

