

Date: _____ Name: _____

Energy Flow in Ecosystems

1.
 - a) How much of the energy reaching Earth is absorbed and converted to chemical energy by the process of photosynthesis?
 - b) Where does the other energy go?
2. What energy-rich substance is produced by green plants during photosynthesis? _____
3. Explain how you know plants contain energy-rich substances?
4. Plants do not just use photosynthesis to make sugars for energy storage. Identify other kinds of uses plants have for these substances.
5. How are photosynthesis and cell respiration related?
6.
 - a) What chemical process(es) do producers and consumers share?
 - b) What chemical process(es) do they not share?
6. List five foods that contain the high-energy products of photosynthesis.
7. Explain why plants use oxygen and perform cell respiration just like animals.
8. Animals are unable to make their own energy, yet you obtain energy when you eat animal food products. Explain how this illustrates the flow of energy through an ecosystem.
9. Describe how plants can perform cell respiration at night when they perform photosynthesis only during the day.