**Ecological Communities** (p. 141 – 148)

**I. Producers & Consumers**

**1. Energy can be created and destroyed.**

Circle One : True False

**2. Match the members of energy cycling with the correct definitions.**

1. \_\_\_\_\_ Autotrophs A. Consumers that eat plants

2. \_\_\_\_\_ Carnivores B. Capture energy from the Sun or chemical bonds

3. \_\_\_\_\_ Decomposers C. Organisms that feed on waste, dead bodies, & leaf litter

4. \_\_\_\_\_ Detritovores D. Consumers that eat other animals

5. \_\_\_\_\_ Herbivores E. Capture energy from other organisms

6. \_\_\_\_\_ Heterotrophs F. Organisms such as fungi & bacteria; Break down matter

7. \_\_\_\_\_ Omnivores G. Consumers that eat both plants and animals

**3. Give examples of primary, secondary, & tertiary consumers.**

Primary Consumer : \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Secondary Consumer : \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Tertiary Consumer : \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**4. Define each term and write out each equation.**

Photosynthesis –

*Equation* :

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Chemosynthesis –

*Equation* :

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Cellular Respiration –

*Equation* :

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**II. Energy & Biomass**

**1. Define the term trophic level.**

Trophic Level –

**2. What percentage of energy is lost when transferred between trophic levels?**

**a. 1% b. 9% c. 10% d. 90%**

**3. Fewer organisms are found in higher trophic levels.**

Circle One : True False

**4. Label the energy pyramid.**

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**III. Food Webs & Keystone Species**

**1. Differentiate between a food chain and a food web.**

Food Chain –

Food Web –

**2. Explain how the sea otter is an example of a keystone species.**