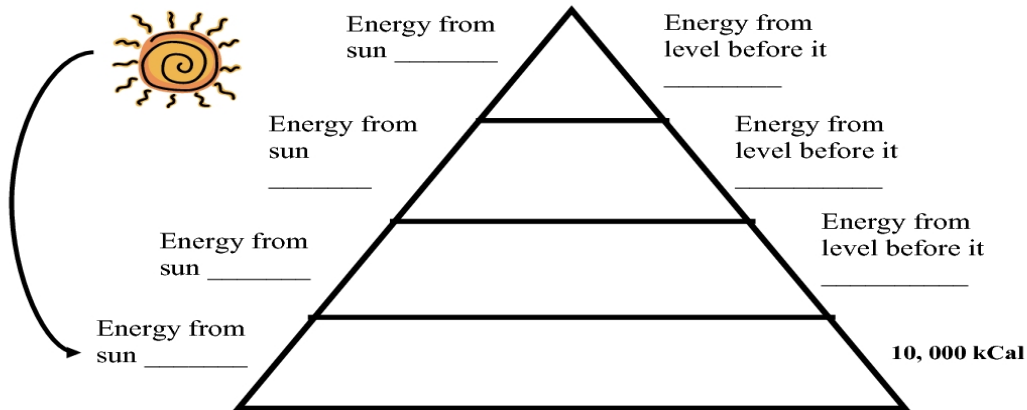


Name \_\_\_\_\_ Period \_\_\_\_\_ Date \_\_\_\_\_

### Energy through an Ecosystem

**Part One: Energy Pyramids** In the energy pyramid below, label the name of each trophic level as either producers or consumers and as either autotrophs or heterotrophs. If they are consumers, be sure to label them as primary, secondary, etc. To the left of the pyramid, write how much energy each trophic level gets from the sun. To the right of the pyramid, write how much energy is transferred from one trophic level to the next.



**Part Two: Organizing a Food Web**

Below is a list of organisms from a marine biome and what they eat. Using the chart below, draw both the organisms and arrows to show the direction of energy transfer between these organisms in the food web.

1. Take out a sheet of notebook paper, turn your paper sideways and label 'kelp' as your producer (kelp is a type of seaweed). Draw herbivores close to the producer. Then position the other organisms based on what they eat.
2. Write the following next to each organism:
  - a. If it is an autotroph or heterotroph
  - b. If it is a producer or consumer. If it is a consumer, label it as a primary consumer, secondary consumer, etc. Keep in mind, some organisms might fall into more than one trophic level.
3. To get Extra Points, make a poster of your food web with printed pictures *in addition* to your notebook paper example.

Sea otter	eats	sea urchin
Squid	eats	crab, kelp
Killer whale	eats	sea otter, squid
Sea urchins	eats	kelp
Crab	eats	kelp

**Part Three: Thinking Critically**

1. Why is a pyramid a good shape to represent how matter and energy transfer in an ecosystem? Why not use circle or a square?