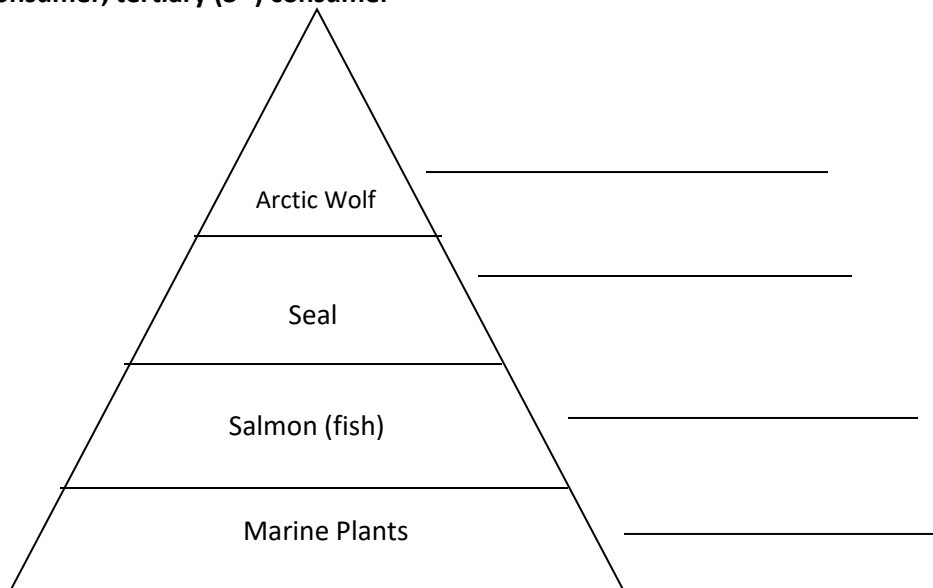


Name: _____

Energy Flow

Worksheet & Diagrams – Use your NOTES to complete this!

1. Label the following trophic levels on the ecological pyramid below: **secondary consumer, producer, primary consumer, tertiary (3rd) consumer**



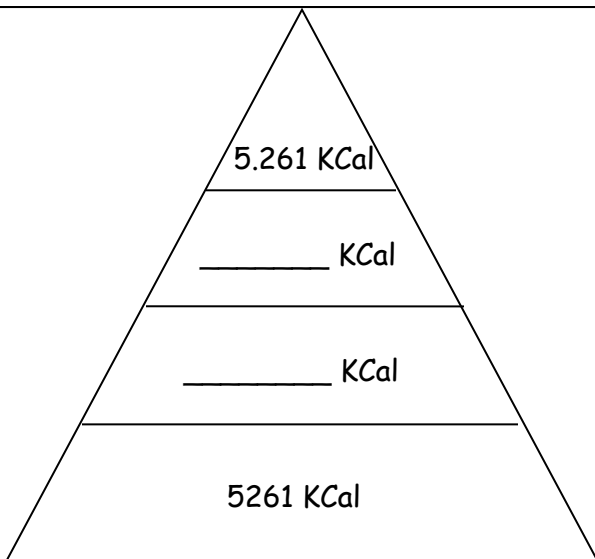
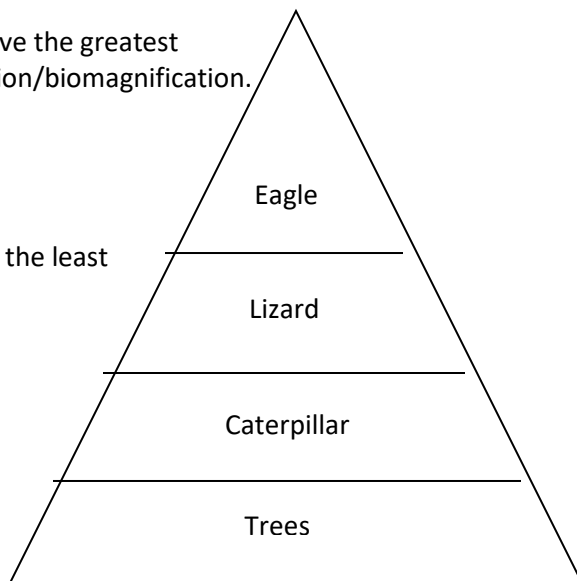
2. Shade in the trophic level where you would expect to observe the greatest amount of a chemical pollutant, this is called bioaccumulation/biomagnification.

3. Use your notes to define “Biomagnification”.

4. Circle the trophic level where you would expect to observe the least amount of a chemical pollutant.

5. Which group of organisms would have the greatest biomass (living material)?

6. Which group of organisms would have the least biomass?



7. Draw an arrow along the left side pyramid in the direction of energy flow.

8. How much energy is passed on to the next level consumer?

9. The energy that does not transfer to the next trophic level is lost as _____ to the atmosphere.

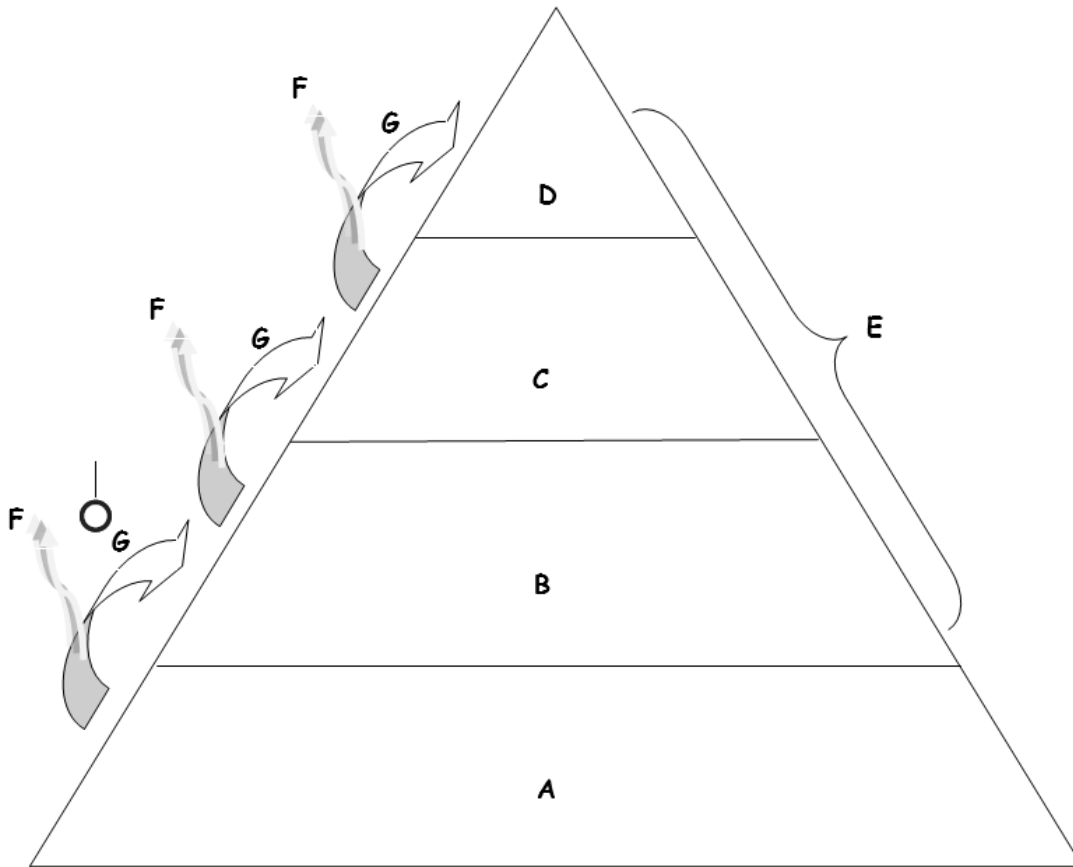
10. Fill in the missing middle numbers for biomass in KiloCalories.

Energy Pyramids

Write the letter in the pyramid next to the terms below where they belong on the pyramid.

- ___ Producer
- ___ Primary consumer
- ___ Secondary consumer
- ___ Tertiary consumer
- ___ 10% energy passed on
- ___ 90% heat energy loss
- ___ Autotrophs

- ___ Herbivores
- ___ Heterotrophs
- ___ Detritivores
- ___ Decomposers
- ___ Receive 100% original energy
- ___ Receive 1% original energy
- ___ Highest bioaccumulation



Using the pyramid above answer the following questions.

1. What happens to the number of organisms (biomass) as you go up trophic levels? (increase, decrease)
2. What happens to the amount of energy available as you go **down** a trophic level? (increase, decrease)
3. What percent of energy is **lost** at each level? _____ What is the energy lost as? _____
4. What type of organisms are at every consumer trophic level (E above) and recycle valuable nutrients back into the environment?