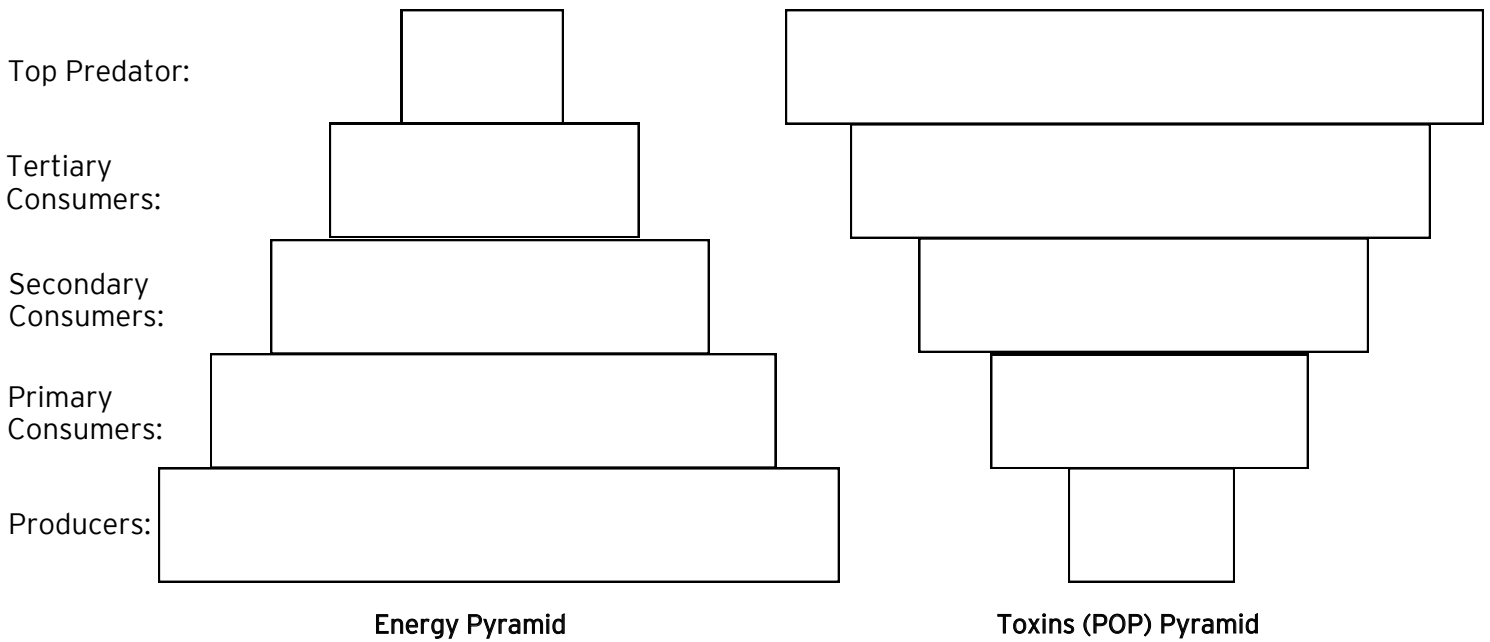


Name: \_\_\_\_\_

## Biomagnification: Toxin Pyramid

**Bioaccumulation** is an increase in the concentration of a substance in an individual organism over time. **Biomagnification** occurs when individual organisms with bioaccumulated chemicals in their tissues are consumed by predators higher up the food web. This leads to higher concentrations of chemicals in organisms higher up in the food web.

- Look at the diagrams below.
  - In the energy pyramid, add the organisms' names next to their consumer type and indicate how many there were of each organism.
  - In the toxin pyramid, add the organism name and average number of POPs to the appropriate level. Then use dots to represent POPs and using your data table, add the appropriate number to each level. (You may want to have one dot represent multiple POPs. If so, include a key next to the diagram.)



- Compare the number of POPs the producers consumed to that consumed by the top predator. What do you notice?
- In an energy pyramid, there are more producers than consumers (which is why the block representing the base of the food web is the largest). Compare the two pyramids. What do you notice?
- What do you think the biomagnification of toxic chemicals, like POPs, means for the health of humans and the ocean ecosystem?