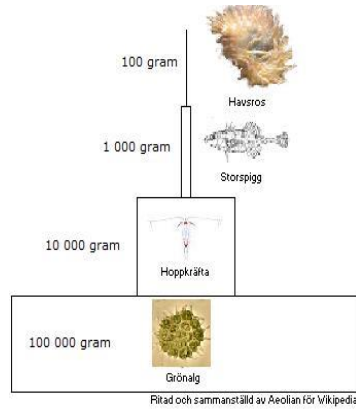
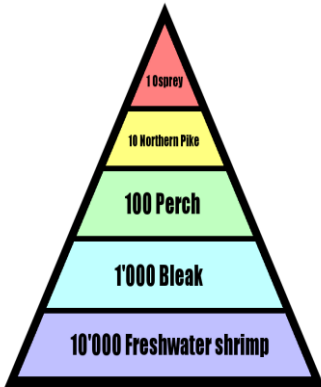


Ecological Pyramids

- Diagrams that show _____ between organisms in an ecosystem
- Three types of ecological pyramids:



Pyramid of Numbers, Biomass & Energy

4.5 understand the concepts of food chains, food webs, pyramids of numbers, pyramids of biomass and pyramids of energy transfer

	Fox ↑ Rabbit ↑ Nettle plant	Two-spot ladybird ↑ Small nettle aphid ↑ Nettle plant	Parasitic wasp ↑ Caterpillar of peacock butterfly ↑ Nettle plant
Pyramid of numbers compares the number of organisms at each trophic level			
Pyramid of biomass compares the mass of biological material at each trophic level			
Pyramid of energy compares the amount of energy passing through each trophic level over a period of time			

Pyramids of Energy

- food chains and food webs have _____
- do not show how much _____ is passed from one organism to the next
- energy pyramids show the amount of available _____ available at each trophic level
- only _____ of the energy taken in by the individual at one level is passed on to individuals at the next level

WHY?

1. Energy _____ because passed out as waste or can't be eaten (60%)
2. Energy is used for _____ by plants and animals such as breathing, running, growing or lost as heat (30%)

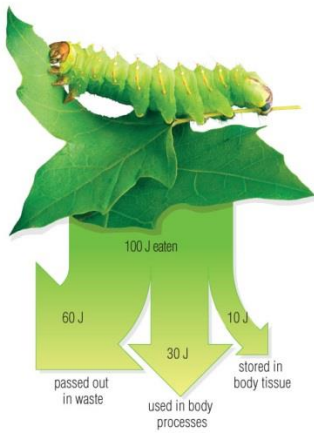


Figure 1.31 Of the 100 J the caterpillar eats, only 10 J is stored in its tissues. Only the energy stored in the caterpillar's tissues is available to the animal that eats it.

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- Always _____ and _____.
- Shows the _____ of _____ at different trophic levels.
- the _____ that exist between the producers and top consumers, the _____ is left for the top consumer
- This demonstrates how important _____ are to ecosystems
- The _____ the base, the _____ producers provide to consumers

Complete Activity A6 on pg. 34