

## 4.2 Energy Flow

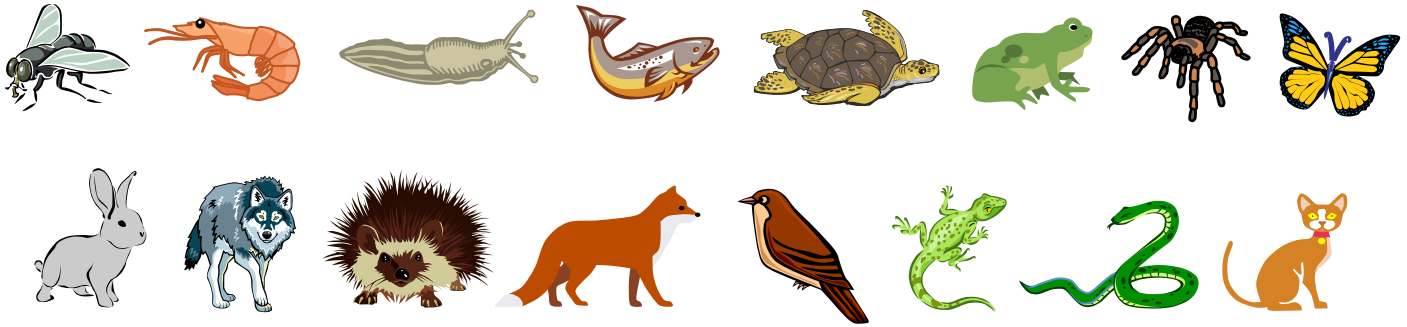
### Feeding Patterns

*Define trophic level*

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*Use the following animals (and any type of plant matter) to construct three food chains with four levels*



Food Chain: ..... ⇒ ..... ⇒ ..... ⇒ .....

Food Chain: ..... ⇒ ..... ⇒ ..... ⇒ .....

Food Chain: ..... ⇒ ..... ⇒ ..... ⇒ .....

*Differentiate between a food chain and a food web*

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*State what an arrow represents in a food chain or food web*

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*Distinguish between herbivores, carnivores and omnivores*

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*Construct a food web from the following information (including trophic levels occupied per organism)*

- Red foxes feed on raccoons, crayfish, grasshoppers, red clover, meadow voles and squirrels
- Red clovers are eat by grasshoppers, muskrats, red foxes and meadow voles
- Meadow voles, squirrels and raccoons all eat parts of the white oak tree
- Crayfish feed on green algae and detritus, and they are eaten by muskrats and red foxes
- Raccoons feed on muskrats, meadow voles, squirrels and white oak

**Energy Transfer**

*State the initial source of energy for almost all communities*

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*How efficient are most biological energy transformations?*

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List three ways in which energy may be lost from one trophic level to the next

1. ....
2. ....
3. ....

Describe the flow of energy in ecosystems

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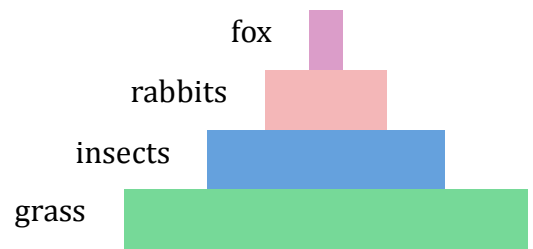
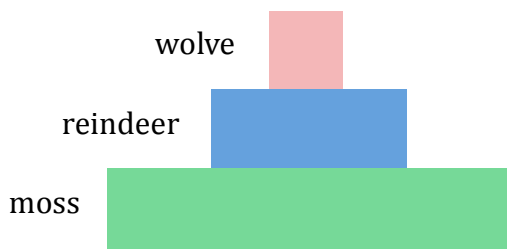
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With the aid of the following diagrams, explain the reasons for the shape of a pyramid of energy



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State the units of measurement used in a pyramid of energy

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Define biomass

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