

## Feeding Relationships

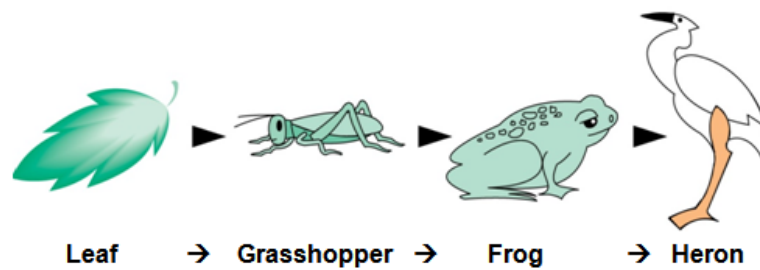
When one organism eats another, the energy in an ecosystem moves along a one-way path.

Energy Flows 

The energy stored by producers can be passed through an ecosystem along a food chain, a series of steps in which organisms transfer energy by eating and being eaten.

## Food Chain

The arrows in a food chain show what eats what. The arrow replaces the phrase "is eaten by." The direction of the arrow is very important. The arrow must point toward the "eater."



**Example #1 - Prairie Ecosystem**

grass → grazing antelope → coyote

**Example #2 - Marine Ecosystem**

algae → zooplankton → herring → squid → shark

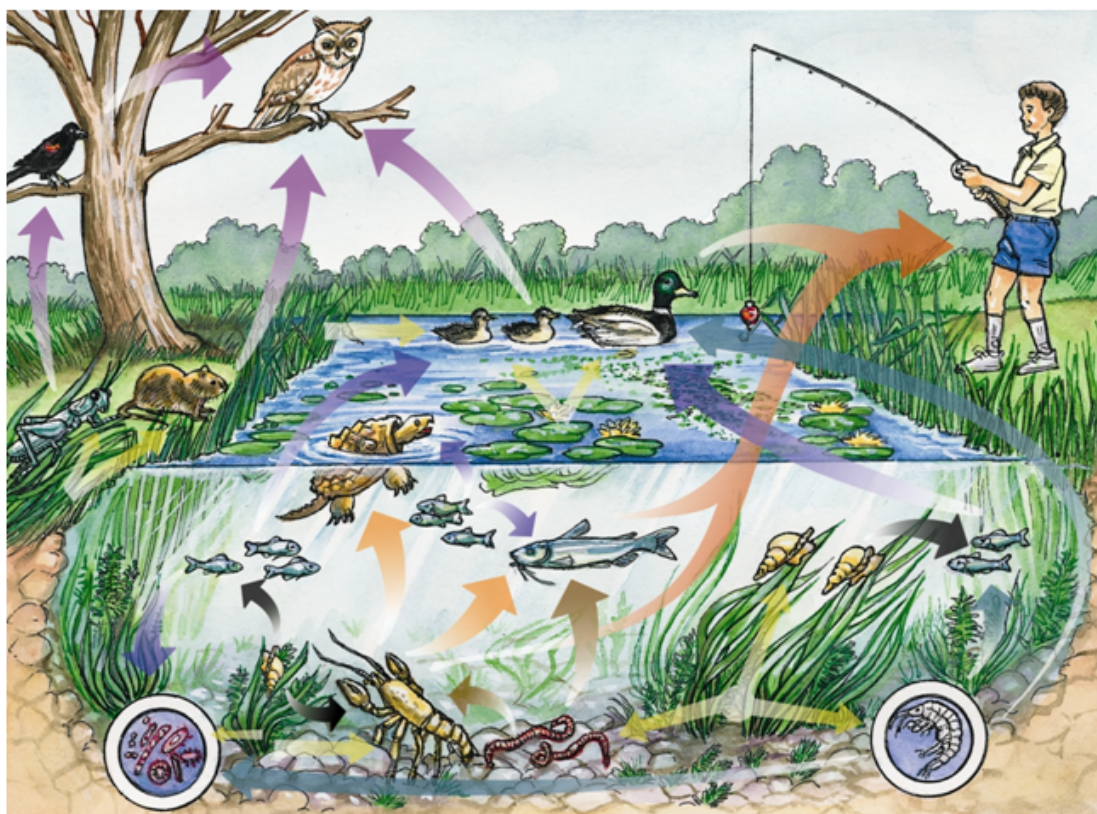
- In most ecosystems, feeding relationships are more complex than can be shown in a food chain.
- When the feeding relationships among various organisms in an ecosystem form a network of complex interactions, ecologists describe these relationships as food webs.

A **food web** links all the food chains in an ecosystem together...

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## Food Web

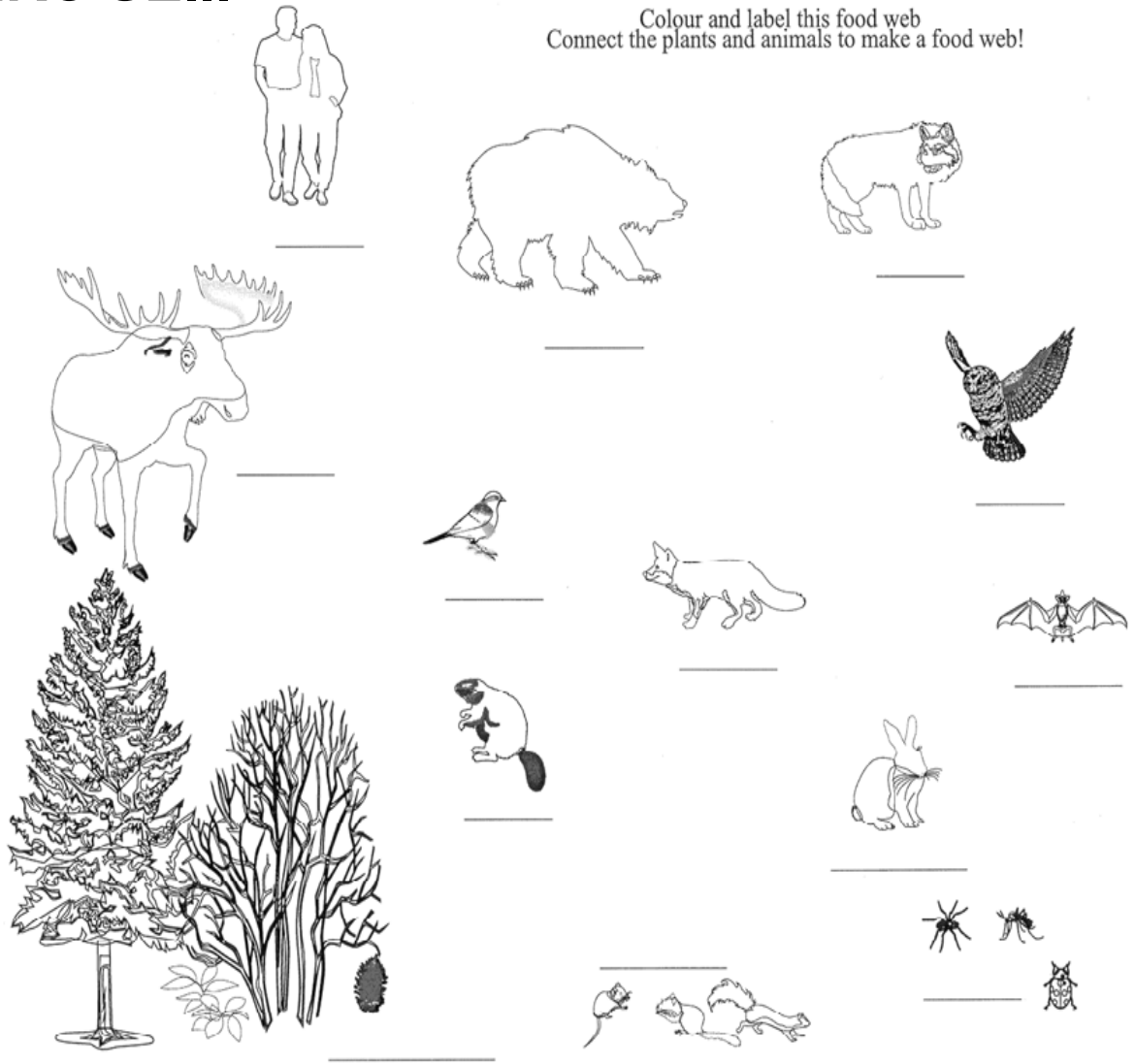
A food web shows the many possible food chains that exist in an ecosystem.



# EXERCISE...

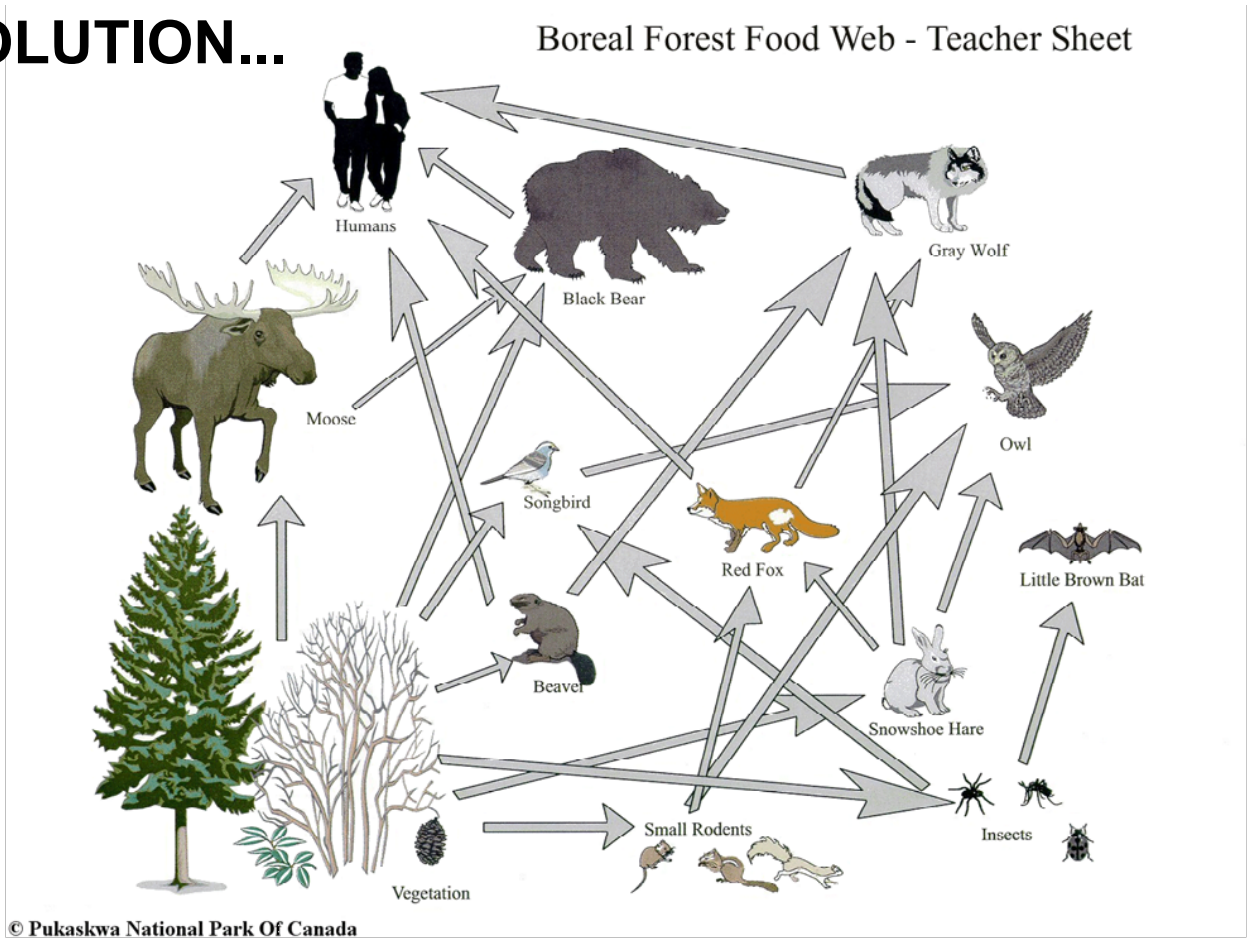
## Boreal Forest Food Web

Colour and label this food web  
Connect the plants and animals to make a food web!



# SOLUTION...

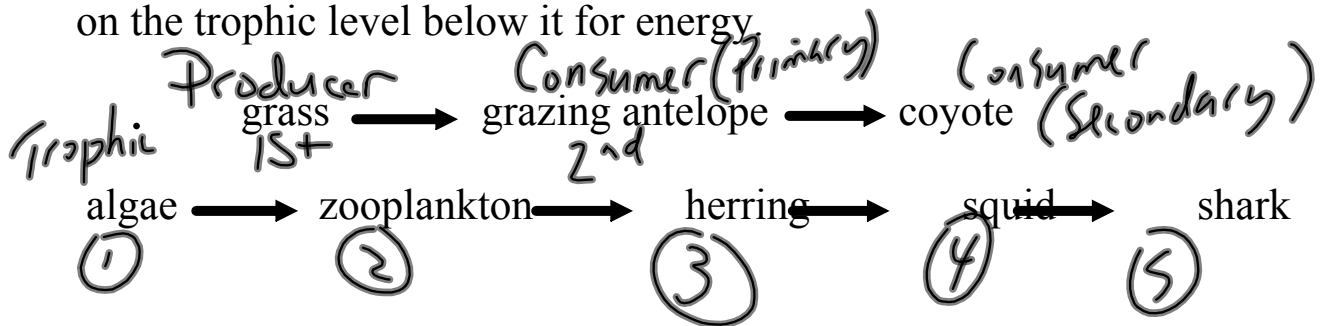
Boreal Forest Food Web - Teacher Sheet



- Each step in a food chain or food web is called a **trophic level** (feeding level).

Greek: *trophe* -> food or nourishment

- Producers make up the first trophic level. Consumers make up the second, third or higher trophic levels. Each consumer depends on the trophic level below it for energy.



**HW:** Biome Brochure is due on MONDAY!!!

Continue working on the Eco-Challenge Project!