Introduction:

Plants get their energy from soil and sunlight. Animals on the other hand, get their energy from the things they eat! Maps of this energy movement through a habitat can be shown in two ways, using a food chain or a food web:

- A food chain depicts a single path from bottom (producers) to top (predator):

![Food Chain Diagram]

- A food web incorporates all possible food chains, showing every way energy may move through the environment:

![Food Web Diagram]
The arrows in a food chain or food web point in the direction that the energy is flowing. For example, if an arrow is going from the plants and pointing to a deer, that means that the deer is getting its energy from the plants:

A complete food web shows more species, meaning there is greater biodiversity within a habitat.

There is a connection between biodiversity and the ability to recover from loss:

- More species means more options of things to eat, so if one species disappears, those species that typically predate on them will not starve!

- Humans are animals too! People have habitat needs, therefore we also have a position in the food web and a role in our habitat. The actions we take to meet our needs and fulfill our role can affect biodiversity and environmental health:
Activity:

Now that you know how food webs work, try drawing the arrows between the community of organisms on the following pages to complete the food webs. Don’t forget - the arrows point in the direction of energy flow!

Activity #1 is at moderate difficulty to get you started. Activity #2 is complex!

Have your parent contact Mandy Hobkirk, MABR Coordinator through our Facebook page or by email (mandy.hobkirk@viu.ca) in order to get the answer keys to this activity.

Question time!
Which organism(s) are at the top of the food chain? How do you know?

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Send us feedback on how this activity went and we’ll enter you into our weekly draw!

Show us your results! Snap a picture and share it with us on social media, or email it to the MABR Coordinator, at mandy.hobkirk@viu.ca
**Activity #1: Moderate**

- **Cougar**
  *Puma concolor*
  
- **American Mink**
  *Neovision vision*
  
- **Raccoon**
  *Procyon lotor*
  
- **Northern Red-legged Frog**
  *Rana aurora*
  
- **Mosquito**
  *Culicidae spp.*
  
- **Dragonfly**
  *Anisoptera*
  
- **Bald Eagle**
  *Haliaeetus leucocephalus*
  
- **Red-winged Blackbird**
  *Agelaius phoeniceus*
  
- **American Mink**
  *Neovision vision*
Activity #2: Complex

Rainbow Trout
(Oncorhynchus mykiss)

Himalayan Blackberry
(Rubus armeniacus)

Salal
(Gaultheria shallon)

Black-tailed Deer
(Odocoileus hemionus columbianus)

Roosevelt Elk
(Cervus canadensis roosevelti)

Sharp Shinned Hawk
(Accipiter striatus)

Vancouver Island Marmot
(Marmota vancouverensis)

Mushroom
(Fungi spp.)

Black Bear
(Ursus americanus)

Zooplankton

European Rabbit
(Oryctolagus cuniculus)

Eastern Grey Squirrel
(Sciurus carolinensis)