

Outdoor Expedition

What's The Plan?

Embark on an outdoor adventure and develop an appreciation of basic ecological concepts in the process.

What You'll Need:

- A place to go for a walk outdoors that will have leaves, sticks, rocks, pinecones, and other objects you can collect.
 - Any tape



What To Do:

1. Build your Nature Mandela

While you are on your walk, try to find natural items like sticks, leaves or pine cones that you think look interesting to collect. Do not pull these items off of plants, but instead collect them from the ground. You are going to be making a mandala with the items you collect, which is like a big patterned circle. Check out some cool examples of nature mandalas below!



2. Design your Nature Bracelet

Now it's time to make your nature bracelet! Cut a piece of tape that is long enough to wrap around your wrist, then put it around your wrist with the sticky side up to make a bracelet. As you continue on your walk, create your nature bracelet by pushing your wrist onto fallen leaves, small twigs, or other natural objects on the ground. Continue this until you run out of space on the tape, and then wear your

new nature bracelet around until you are ready to take it off! Want some nature bracelet inspiration? Take a peek at these ideas!

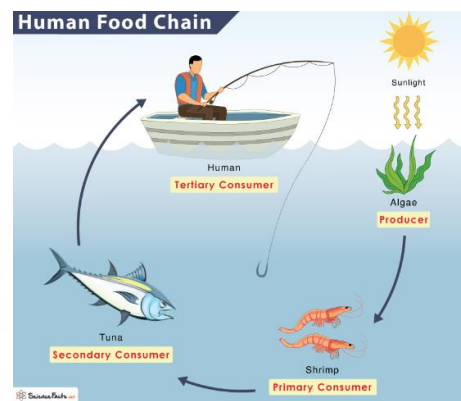
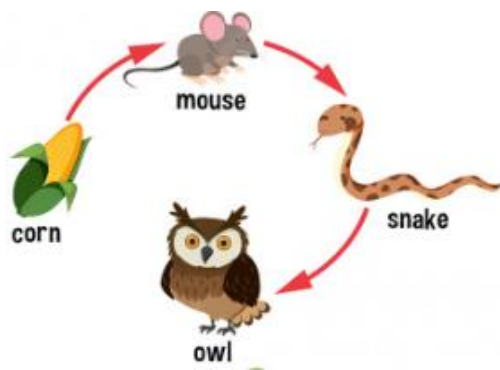


What Are We Talking About?

Here is a list of important words we use during the project!

- *Ecosystem*: An ecosystem is an area of land where both living and nonliving things exist and interact. The ecosystem where you went on your walk today might have been made of trees, grass, bushes, rabbits, the sun, and even humans.
- *Ecology*: A special type of biology that looks at how living and nonliving things interact with one another in an ecosystem. A biologist might ask what the anatomy of a leaf is, but an ecologist would ask how the leaf supports the rabbits that live in a field.
- *Biotic*: Living things in an ecosystem, such as rabbits, deer, insects, humans, trees, and plants
- *Abiotic*: Nonliving things in an ecosystem, such as the sun, clouds, soil, and rocks

- *Producer:* Producers can use the energy from the sun to make their own food and food for others, and don't need to eat other living things to stay alive. Producers are often things like plants and trees.
- *Consumer:* A consumer cannot directly take energy from the sun and turn it into food, and relies on producers to make the food for it to eat such as leaves and plants.
- *Decomposer:* A decomposer is a living thing that breaks down dead plants and animals, and releases the energy stored in their bodies back into the ecosystem to be used again. Examples of decomposers include mold and worms.
- *Food Web:* The food web is a diagram ecologists use to understand how energy flows in an ecosystem. Food webs usually look at what eats what inside of an ecosystem, with arrows pointing from what is being eaten to what is eating it. Check out some pictures of food chains below!



Want to do a deeper dive into food webs and their components? Check out the game linked below, that lets you build food webs and then watch the real animals who make it up!

[Build a Food Chain!](#)

[\(Activity: Build Food Chains & Food Webs | Platte Basin Education | PBS LearningMedia\)](#)

How Did It Go?

We'd love to hear about all the amazing STEM projects you're doing! Show us your finished projects on any of the following social media platforms by tagging us!

Twitter: @MyMindsInMotion
Facebook: @mindsinmotion2014 || @ucactiveliving
Instagram: @ucalgaryactive



Let us know how you felt about the project! Please [click here](#) or scan the QR code above to fill out a short survey!