



Grade Level: 5
Subject: Science

Reservation Food Chain

ESSENTIAL UNDERSTANDINGS

- Lifeways
- Language

LEARNING OUTCOMES

- Students will be able to explain what a food chain is.
- Students will be able to describe the various components of a food chain.
- Students will be able to construct a food chain for the life forms on the Grand Ronde Reservation.

CULTURALLY RESPONSIVE PRACTICES

- Connecting to the lives of students
- Proximity
- Higher level thinking: creating
- Preserving and honoring cultural history

ASSESSMENT

Students will be assessed on their participation in the group discussions, their proficient completion of the Grand Ronde Reservation Food Chain, and their participation in the final presentation of their Grand Ronde Reservation Food Cycles.

Overview

The Grand Ronde Reservation is the home of many plants and animals of the Pacific Northwest. In this lesson, students will learn about students the plants and animals on the Grand Ronde Reservation and how they cohabitate on the land.

MATERIALS

- [Sample Food Chain](#)
- [Grand Ronde Reservation Animal/Plant Cards](#)
- [List of CTGR Reservation Plants & Animals](#)
- Paper
- Art Supplies
- Access to Internet or Sample Images of Plants/Animals (optional)

LOGISTICS

- Where does this activity take place?
Classroom
- How are the students organized?

Whole Class Teams: 3-5

Pairs Individually

TIME REQUIRED

1-2, 45 minute sessions

STANDARDS

Next Generation Science Standards

5-PS3-1 Use models to describe that energy in animals' food (used for body repair, growth, motion, and to maintain body warmth) was once energy from the sun.

5-LS2-1 Develop a model to describe the movement of matter among plants, animals, decomposers, and the environment.

Background for Teachers

Food chains, in ecology, are the sequence of transfers of matter and energy in the form of food from organism to organism. Food chains intertwine locally into a food web because most organisms consume more than one type of animal or plant. Plants, which convert solar energy to food by photosynthesis, are the primary food source.

The Grand Ronde Reservation is the home to many different plants and animals. With the help of our Natural Resources Department, these life forms live in harmony on the Reservation. They are all integral pieces of the food chains and food webs that exist on the Reservation.

Britannica Kids:

- [Food Chain](#)
- [Ecosystem](#)

YouTube

- [Food Chains Compilation: Crash Course Kids](#)
- [nsayka ili?i: Reservation](#)

VOCABULARY

- **Food Chain** - A food chain shows how each living thing gets its food. Most living things eat more than one type of animal or plant. So their food chains overlap and connect.
- **Producer** - a living thing (as a green plant) that makes its food from simple inorganic substances (as carbon dioxide and nitrogen) and many of which are food sources for other organisms
- **Consumer** - a plant or animal that requires complex organic compounds for food which it obtains by preying on other living things or eating particles of organic matter compare
- **Predator** - an animal that obtains food mostly by killing and eating other animals
- **Prey** - an animal hunted or killed by another animal for food

Opening

Begin the lesson by asking students what they ate for their last meal. Select one example and break down the ingredients. (Example: hamburger bun, hamburger patty, cheese, lettuce.) Write the ingredients in front of the class. Work as a whole group to sort the ingredients by which came from plants and which came from animals. After sorting the ingredients, discuss with students:

- What animals eat
- How many things we eat come from plants or consume plants
- That plants need sunlight and water to survive

After discussion, show students the sample food chain and discuss how the food chain flows.

- Who are the producers? (They make their own food)
- Who are the consumers? (They get their food from plants or other animals)
- What is a predator? (An animal that eats other animals)
- What is a prey? (The animal - “a consumer” - that is being eaten)

Activity

1. Present students with the Grand Ronde Reservation Animal/Plant Cards
2. Give students time to organize the cards into a food chain. Students can work individually, in partners, or in small groups to complete this activity.
3. After students have had enough time to complete the activity, review their answers. Ensure that students understand the components of the food cycle:
 - a. Producers
 - b. Consumers
 - c. Predator
 - d. Prey
4. Discuss with students:
 - a. What factor does the sun play in the food chain? (Provides energy for the plants to grow, which the animals eat, and are able to use for body repair, growth, motion, and to maintain body warmth)
5. Provide students with a list of plants and animals on the Grand Ronde Reservation. Review the list with students to ensure they understand what each animal is and their role (predator vs. prey, producer vs. consumer).
6. Explain the assignment to students:
 - a. Students will need to create a food chain using at least 3 life forms. (i.e. 1 plant, 1 animal, and a human or 1 plant, 2 animals) Their food chain should also include a sun. Students will need to draw arrows to demonstrate the movement of the chain and matter involved.
 - b. Discuss with students the importance of cultural appropriateness when drawing their food cycle, specifically the human. Remind students that Native American people look like any other individual and the depiction of headdresses, arrows, feathers, etc. is inappropriate.
 - c. Note: Students may benefit from access to the internet or provide images to construct their drawings of the plants/animals.

Closure

When students have finished their food chain, allow students time to gather with their peers and share their food chains with other students.

Differentiation

- Teachers can choose to conduct the entire activity as a group and guide students through the creation of their food chains.

Extension

- To compare and contrast - allow students time to research food chains and food webs in different parts of the world. How are these food chains similar and different than that created on the Grand Ronde Reservation?

Notes/Other

Jan Michael Looking Wolf's or Grand Ronde Canoe Family audio tracks can be played as background music while students are working. These audio tracks can be found on Spotify or Apple Music.

Jan Michael Looking Wolf: [Spotify](#) and [Apple Music](#)
Grand Ronde Canoe Family: [Spotify](#) and [Apple Music](#)

Appendix

- Sample Food Chain:
<https://drive.google.com/file/d/19oxPA9RXSxyx5WZLKtwB76ykGfFfKXIP/view?usp=sharing>
- Grand Ronde Reservation Animal/Plant Cards:
<https://drive.google.com/file/d/19OCHKrSbY4R49KkO2nKzLtOmAx520XoT/view?usp=sharing>
- List of CTGR Reservation Plants & Animals:
<https://drive.google.com/file/d/1poq6XWfWM3gDHUVo6zhbYJpfUcAMnITS/view?usp=sharing>