



WASTE & OUR CHANGING WORLD

Length

1 hour 30 minutes

Map Our Waste	15 minutes
Decomposing Activity	10 minutes
Waste in Our Past & Present	40 minutes
Web of Life Activity	10 minutes
Conclusion	15 minutes

Curriculum Connections

Science

Grade Four Topic: Waste and Our World

Social Studies

Grade Four 4.1.1 / 4.2.1 / 4.2.2 / 4.S.2 / 4.S.3

LEARNING OBJECTIVES

1. Students will gain a better understanding of the history of this area from 3,000 years ago until shortly after the NWMP left Calgary.
2. Students will be able to distinguish between Calgary's early communities and the different types of impacts these communities might have had on the environment.
3. Students will critically assess artifacts and modern day objects to decide whether there are ways we can improve how we create and consume.
4. Students begin to understand the meaning of sustainability and how humans are vital part of our ecosystem.

PROGRAM OVERVIEW

At the beginning of the program students will look at a historic map in order to chart and discuss historic waste and the history of the area. With the map they will talk about some of the changes that have taken place on the prairies and in this area and the impact it has had on our environment.

After the introduction, the students will play a quick game that illustrates how long things take to decompose. Then after that the class will be split into groups, where they will look at and brainstorm what the object is and what it is used for, and how it is disposed of. They will do this for an artifact and then they will brainstorm a modern day equivalent for each artifact. After the groups have seen all of the artifacts, we will compile the student's thoughts. This will then lead into the conclusion and a discussion about cutting edge materials and objects that are created with sustainability in mind.

Before the conclusion, the students will play a web of life activity to illustrate how we are interconnected to our environment. Then for the conclusion they will be shown examples of packaging and use the mushroom packaging as a modern example of people developing sustainable products. At the end the class will brainstorm what sustainability means to the students now to them and see if there have been any changes or new insights.

PREPARING YOUR CLASS

1. Review vocabulary words to prepare students for their visit.
2. Discuss the definition of First Nations and have the students understand that there are various, separate, and unique First Nations communities living across Canada. You can do so if you compare and contrast the Inuit community with the First Nations/Blackfoot community who lived on the prairies where Calgary is today. Talk about how the geography around these two groups informs the way that they live such as natural resources available, food source, and climate. Discuss with them how are they similar and how they differ.
3. Discuss the concept of settling and how the settlers had to make a difficult journey to come to the prairies. Discover where the settlers would have come from originally (France, Britain, Ukraine, etc.) and why they would come all the way to Calgary.
4. Discuss who the NWMP were and what their role on the prairies was. Discuss why they came to the North West Territories and that it was the NWMP that built and help to establish this area for the settlers.
5. Discuss concepts of sustainability. A good place to start could be “Reduce, Reuse, and Recycle.”

VOCABULARY

Archaeology – the science concerned with the recovery, analysis, description and explanation of the remains of past human cultures

Artifact – any object manufactured, modified or deliberately shaped by humans. Includes tools, weapons, ceremonial items, art objects, garbage, clothing and all food remains

Blackfoot Confederacy – a First Nations alliance that includes the Kainai (Blood), the Siksika (Blackfoot), and the Piikani (Peigan) tribes

Bow and Elbow Rivers – the two rivers that flow from the mountains and through Calgary. The Elbow river flows into the Bow river and their confluence is at the site of Fort Calgary

Buffalo/Bison – the North American species, better known as buffalo, has short, black, curved horns; a beard, shoulder hump, short tail; and long, shaggy, and woolly hair on the shoulders

Decompose – to break down; to rot. Organic materials will decompose if not preserved in some way

First Nations – refers to the various governments of the First Nations peoples of Canada. There are over 630 First Nations across Canada with 46 in Alberta

Fort Calgary – the birthplace of the city of Calgary, and the original location of the North West Mounted Police fort built at the confluence of the Bow and Elbow Rivers in 1875

Indigenous Peoples – the descendants of the original inhabitants of North America. First Nations, Inuit, and Métis peoples have unique heritages, languages, cultural practices and spiritual beliefs

Inorganic – describes objects made of mineral-based materials - e.g. metal tools, stone arrowheads. These things will not decompose easily

North West Mounted Police – a police force established in 1873 to maintain colonial law and order in the newly acquired North West Territories

Organic – describes objects made of plant or animal material - e.g. furs, woven baskets made of grass. These things usually decompose quickly

Settlers – a person who has moved to an area and established a permanent residence there

Sustainability - able to use resources without being completely used up or destroyed, which involve using methods that do not completely use up or destroy natural resources