

Species at Risk

Teacher's Guide



saskatoonzoosociety.ca



SPECIES AT RISK

SUBJECT:
**Science &
Social Studies**

GRADES:
6/7, 7-8

**CURRICULUM
CONNECTIONS:**

Grade 6:
**Diversity of Living
Things**

Grade 7:
**Interactions within
Ecosystems**

Grade 8:
**Interactions and
Interdependence**

**Dynamic
Relationships**

OVERVIEW:

What is biodiversity, why is it important and how has it changed over the years in Saskatchewan? This program looks at the history of Saskatchewan's grasslands and the changes in biodiversity from the time of first contact with Indigenous peoples through to European settlement. We will also look at the modern day re-introduction programs for Bison, Swift Fox, and Black-footed Ferrets.

OBJECTIVES:

1. Students will be able to define biodiversity.
2. Students will be introduced to the changes in the Saskatchewan landscape and how human interaction has affected wildlife.
3. Students will look at the history of Saskatchewan's grasslands and the changes in biodiversity from the time of first contact with Indigenous peoples through to European settlement.
4. Students will be introduced to the modern day re-introduction program for Bison, Swift Fox, and Black-footed Ferrets.

KEY VOCABULARY:

Biodiversity: The unique variations of living things.

Ecosystem: The living and non-living components of an area that interact with each other.

Conservation: the management of nature and biodiversity with the aim of protecting a species, their habitat and ecosystems from extinction or erosion of interaction.

Extirpated: a species or population no longer existing in a localized geographical location.

Ecology: study of the relationships between organisms and to their environment.

Habitat: Where a living organism naturally lives including all the living and non-living interactions.

BACKGROUND INFORMATION

Biodiversity is all the forms of life around us. When in balance, nature works to support all living creatures including us as humans. When out of balance, the system starts to fail causing species to be at risk or to go extinct. When species start to disappear a ripple effect can occur in the environment causing waves that are difficult to stop. Unfortunately, humans are at the root of the problem when it comes to upsetting the balance of our ecosystem. Nature is amazingly resilient, but the pressure we are bestowing upon it is alarming. We need our environment to be as rich and diverse as possible to sustain future populations.

PRE-VISIT ACTIVITIES

Activity One

Ask your students what biodiversity means to them. Ask them why it is important to us and what are some threats to biodiversity. A great resource is the Biodiversity Toolkit for educators from the World Wildlife Fund.

Hunting and trapping have always been an essential way of life for First Nations societies. Wildlife harvest has always been about sustainable resource use that meets current needs, but doesn't compromise the ability of future generations to meet their needs. First Nations hunters and trappers were stewards for appropriate land use, sustaining biodiversity in the area in which they hunt. Discuss this concept with your students and look at ways in which First Nations were able to manage wildlife species and the environment.

Activity Two

Using COSEWIC (Committee on the Status of Endangered Wildlife in Canada), have the students research a species at risk in Saskatchewan. For older students, have them include ways in which the species could be managed appropriately in Saskatchewan or consider whether or not the government should even consider a re-introduction program (for the Grizzly bear for example).

POST-VISIT ACTIVITIES

Activity One

The Saskatoon Zoo Society's conservation message is

"Life is all connected, individual actions matter; collectively making a difference".

Share this with students and discuss what they think this means. How do they make a difference in the health of their planet? What more could they do or their city/province/country do? If possible, have the students go on a biodiversity walk and locate and record as many signs of life as they can. Compile the lists. You can now either chart this information and incorporate it into a math assignment or have the students create a biodiversity collage using technology or art supplies.

Activity Two

Research a variety of songs that talk about the environment &/or climate change. Have the students pick one of their favourites and write about why it's important to them or have them create their own to reflect an environmental issue that impacts them today. If tech-savvy, students could create their own music videos or just put the lyrics to music.

Activity Three

Initiate a discussion in your class of how land use has changed post European contact. For example how has forestry, mining, oil and gas industries, road access and sport hunting impacted traditional hunting territories for First Nations? How have animals and the environment been impacted? Share with the students some of the work that has been done to include First Nations views and traditional management methods in managing animal populations. How is First Nation knowledge important to sustainability of wildlife management and our planet for their generation?