

WHAT IS ENDANGERED?

Grade Level: K-3, adapt for appropriateness

Location: Classroom



Vocabulary: Endangered, Extinct, Conserve, Preserve

Materials:

1. Photos, posters of Endangered Species in Canada and world.
2. Dr. Suess's The Lorax
3. Hoops

Learning Outcomes:

It is expected that students will be able to:

1. Identify some endangered or at risk species living in Canada or [abroad](#). Explore a variety of [sources](#).
2. discuss some of the problems that wild animals and plants face from humans,
3. offer some solutions for possible preservation and conservation.

Method:

Students will participate in cross-curricular activities.

Background:

- Have posters and photos of endangered species around the classroom. Discuss the terms, extinct and endangered and give examples of both. Discuss why species are at risk. See <https://www.canada.ca/en/environment-climate-change/services/species-risk-public-registry.html>
- A BC provincial database can be searched [regionally here](#), or by plant, animal, bird etc. criteria.
- A youth-oriented video on extinction is here: <https://www.youtube.com/watch?v=ogLFEq1X0RM>
- Encourage students to consider some of the recovery stories with this youth-oriented video on animals that came back from being threatened or at risk of extinction, to help instill a sense of hope. <https://www.youtube.com/watch?v=d0YC0H02ky0>
- If time permits, explore the questions about whether science should bring extinct animals back to life, like DINOSAURS? <https://www.youtube.com/watch?v=8oLhvD9mNso>



Suggested Activities:

1. Brainstorm: a list of endangered species. Once presented, have students group the animals according to classifications such as mammals, birds, fish (can be done as a class or small group activity, with photocopied animal pictures for each group). Also, ask which animals they think may live in Canada and in British Columbia.

2. Reverse Jigsaw: Use a poster of an extinct or threatened animal such as a Badger or Whooping Crane and cover it with a number of pieces of paper. Slowly remove pieces of paper while students attempt to guess what the picture is. Follow with discussion about the animal and reasons for its extinction. Extinctions are due to a variety of factors including hunting, forest clearing and possibly disease or genetic factors. Some websites to help explain this:

<https://education.nationalgeographic.org/resource/endangered-species>

3. Who Am I? A few students at a time take turns having an endangered animal name tag (or picture) stuck onto a headband which is then placed on their head. In turn they attempt to guess what animal it is by asking questions, i.e. Is it a mammal, does it have feathers? A 'yes' answer gives them the opportunity to ask another question. A 'no' answer results in the next person having a turn. The first person to guess their animal wins. Continue until all students have had a turn to guess an animal.

4. The Lorax - The Dr. Seuss book The Lorax is in most primary school libraries [or online](#). The animals in the story leave their habitats for a number of reasons including habitat destruction and pollution. One possible solution is provided at the completion of the story. Have the students develop a list of other solutions.

5. Game: Disappearing Islands - Place 10 hoops on the ground. All are close together apart from one some distance away. These will represent habitats while the students will be the animals that live in them. The task is for the animals to move safely from one habitat to another as animals need to move to find food, partners or escape fire. On the call of change have the children move to a different habitat.

Once they find moving is easy, introduce a student as a feral animal such as a cat or fox. When they are asked to change, the feral is able to tag any other animal outside a habitat. Once tagged, the eaten animal then becomes a cat or fox. Ensure that only one animal is eaten per call of change. As the game progresses, the number of prey animals decreases as the number of feral animals increases. Question the children about the strategies they are using. Very quickly they will realize that habitats close together are a safer way to move. After several calls of change, ask the students for strategies to combat the problem, for example, remove feral animals or create more habitats. Incorporate these into the game.

6. Game: Tree for Me - This is a game based on musical chairs that focuses on the importance of participating in habitat conservation. Children are in groups of three. Two people face each other and join hands to represent a tree. The third person is a hollow dwelling animal. When the leader calls 'change', all animals must change trees.

The woodcutter is introduced to cut down some of the trees which in turn go to the woodpile. This leaves some of the animals without trees. On the call of change animals scramble for remaining trees. The game can continue until there are no trees left. Issues and variations:

At a relevant stage, make shelter boxes from timber in the woodpile. Introduce feral animals to further disrupt the natural ecology. Have students consider what the wood is being used for and how they participate albeit unknowingly in the cycle.

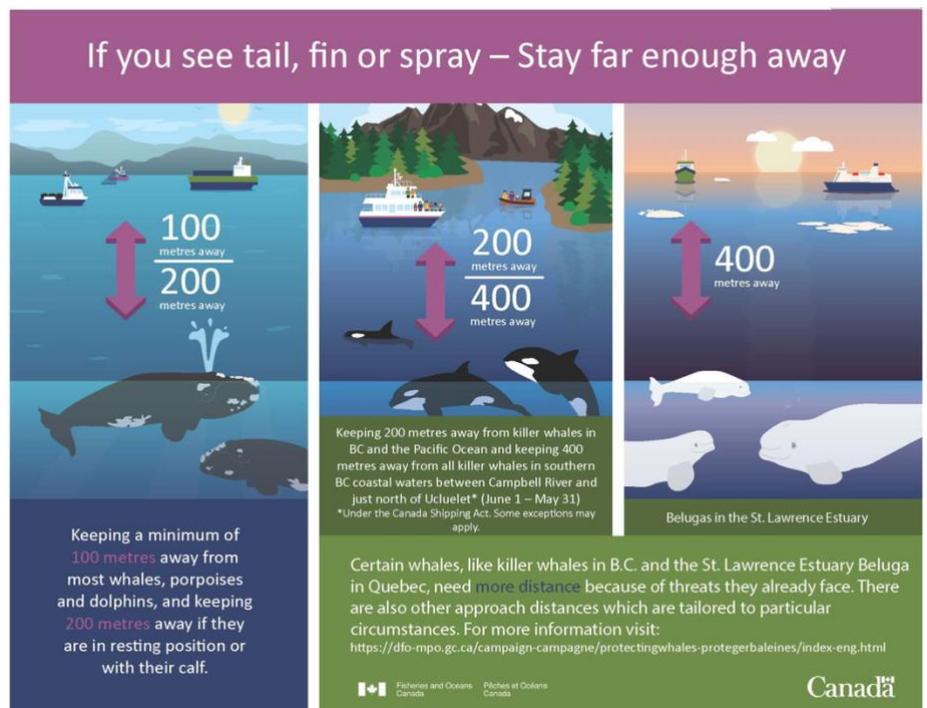
Introduce possible solutions - conserving old and establishing new habitats, the concept of reuse, reduce, recycle.

7. Donuts - Have the whole grade form an inner and an outer circle. An outside and an inside person face each other. In turns they complete the statement you read to them, i.e. Three endangered animals are... After they have both had an opportunity to complete the statement, the outside person moves to the next person on their left. Another statement is then addressed. Following statements could be: Some of the reasons animals become endangered are... I can help endangered animals by...

At the completion of the activity students have the opportunity to process the information, develop lists of information gained and strategies to implement.

8. A Whale of a Question? -

Rather than start with a question start with an answer. For example, the answer is: Endangered Southern Resident Killer Whale. Students develop five questions linked to the answer. Students should also learn that recovery is possible with careful management and how groups are working collaboratively to improve this whale's survival. Some whales are even producing offspring in this group. Explore some of the recovery measures in place here. Parks Canada and Boating BC as well as conservation groups like BeWhaleWise and industry groups such as Vancouver Port Corp are involved in various measures to protect these Killer Whales. You can download the federal government infographic from here.



9. Organizing an Excursion

Involve your students in the organization of an excursion to a national park (or a marine park if one's nearby), zoo or wildlife sanctuary by having them assist with:

- establishing dates and travel times calculating costs
- gaining permission from school council drafting information letters to parents developing equipment

lists

- estimating travel times

10. The Egg Experiment - To give students some understanding of how fragile some species are and what their needs may be, students are given an egg to look after for one week. They are expected to take it everywhere with them without exception (of course they can arrange some 'eggcare' provided there is a willing provider).

11. Ecological Pyramids - Human pyramids are easily made using six students. The base is made of three children resting on their hands and knees with shoulders touching and facing in the same direction. Two lighter students then take up the same position only this time on top of the original three. Finally the last, and hopefully lightest person scrambles on to the top. Each layer represents different aspects of a food chain. For instance, if the top animal is an eagle, then its food source below on the middle layer may include mice and rabbits. The bottom layer represents the food source for the middle layer. Once students have built their pyramid, suggest taking one of them out. Their resistance explains the necessity for biodiversity.

12. Taking Action - A chance for students to act upon what they have learnt. Ideally the motivation and ideas should be generated by the students and be age appropriate. *Action Plan*. Students can devise their own charter for helping endangered species in Canada. Their action plan can be for home and school. Action plans need to be achievable if people are going to maintain the changes to their habits.

Some possibilities include:

-  Volunteer to help look after a local park or garden
-  Encourage friends with farms to maintain native plant species on their property
-  Plant native trees, not exotics
-  Recycle whatever you can
-  Your Own Green Space - Establishing your own native green space at school is cheap, easy & fun.

Step 1

Collect seeds from local indigenous plants and trees. Mark seed types. FORED has an instructional activity called Seven Steps to a Seedling you can [download here](#) that helps you gather and grow your own tree.

Step 2

Obtain old seedling trays and seed raising mix from a nursery or use recycled containers. Place seed raising mix in trays as with any other plant. Only a light sprinkle of soil is required on seeds. Add water and wait for seeds to germinate.

Step 3

When seedlings have established their first pair of leaves, they are ready for transfer. Plant outdoors as with any other plant.

Evaluation

- *Sorting it all Out* - A chance for students to process the information they have gathered and

begin to draw some conclusions. At this point, students are keen to respond to their experiences and can take on a variety of approaches including:

- Murals that could also incorporate photos from field trips

- Models

- Photo journals that can be kept from the beginning of the unit

- Endangered Species Reports or picture booklets Creative writing – Student or Class poems or short stories

Slam Dunk - Children write their observations, thoughts and feelings on a piece of scrap paper. This is then screwed up and tossed, shot or slam dunked into a container in centre of the room. One by one students dip their hand into the container, pull out a paper ball and read the message. This provides the opportunity to write with anonymity and assist with your course evaluation.

Some activities were adapted by [FORED BC](#) from the Victoria National Park classroom activities (Australia).