

Grade Two Unit Plan

Introduction

This unit plan begins with an introduction to the animals living in a forest ecosystem. Students are then taken outside to observe wildlife in the school community while examining the components of and interconnectedness within ecosystems. Finally, the unit examines the flow of energy through an ecosystem and concludes with an action learning project to enhance local habitat. Linked activities are provided for each lesson should you wish to further develop a given theme.

How to use this Unit Plan

The Unit Plan was developed assuming **two 30-40 minute Science blocks per week with one entire morning or afternoon block for a field trip to a local wetland ecosystem**. It would be helpful if students had experience with sorting, their five senses and recording knowledge in a journal.

A 8-week implementation, broken down into 12 lesson plans, is outlined in the following Unit Plan Chart. The time line is variable based on the activities you choose. Teaching suggestions are given in the “Tips” section. The Assessment column indicates that an Assessment Tool and Rubric is available and can be found on the Teacher CD. The Dragonfly Symbol indicates that the lesson has a component of physical activity.



Resources used to develop unit plan:

Project WILD – this activity guide contains 121 activities focused on environmental and conservation education.

Leap Into Action! Simple Steps to Environmental Action - this resource will assist you and your students in choosing, planning and implementing action learning in your classroom.

Wild BC provides numerous publications and workshops for educators. Over 20 activity guides developed to increase environmental literacy are available. To obtain any of the publications listed above, please contact Wild BC at 250 356 7111 or 1 800 387 9853 or visit our website at www.hctf.ca/wild.htm

Your Notes Here

Grade Two Unit Plan



Week 1

Lesson at a Glance	Summary	B.C. Min. of Education Learning Outcomes	Linked Activities	Assessment	Teaching Tips
<p>Lesson 1 <i>Who Am I?</i> Two 30-minute blocks Any Season Indoor or Outdoor</p>	<p>Goal: think about the animals of an ecosystem.</p> <p>How: asking only yes/no questions, students determine which animal card they are wearing.</p>	<p>Life Science</p> <ul style="list-style-type: none"> Classify familiar animals according to similarities and differences in appearance, behaviour and life cycles Describe ways in which animals are important to other living things and the environment 	<p><i>Are You Me?</i> Project WILD p. 64</p> <p><i>Colour Crazy</i> Project WILD p. 11</p> <p><i>And the Wolf Wore Shoes</i> Project WILD p. 254</p>	<p>✓</p>	<ul style="list-style-type: none"> This activity is an excellent introduction to the diversity of creatures found in an ecosystem. Materials needed: one animal picture, laminated and hung on string to make a 'nametag', for each student, drawing materials. The animal pictures should all be from the same ecosystem. Hang an animal picture around each child's neck with the picture hanging down the child's back. Do NOT let the child see the picture. Children try to figure out which animal they are by asking only yes/no questions e.g. Do I have fur? Do I have a bushy tail? Do I have scaly skin? Am I a hunter? You may wish to model this questioning technique. Before beginning the activity, review some common animals of the forest and how to identify them. I.e. mammals have fur, reptiles have scales, amphibians have skin that is soft and wet, birds have feathers, and insects have a hard exoskeleton. When the students have identified their animal, have them choose two other animals that they have seen on someone's back that would have a natural connection with their animal. For example, if their animal is a squirrel they might choose a mouse, which also eats seeds, and a hawk, which would hunt the squirrel

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Lesson at a Glance

Summary

B.C. Min. of Education Learning Outcomes

Linked Activities

Assessment

Teaching Tips

Lesson 2

Animal Charades
Project WILD p. 4
One 40-min block
Any Season
Indoor



Goal: understand what makes an animal wild.

How: students will be able to define wildlife, as well as distinguish between domesticated and non-domesticated animals.

Life Science

- Classify familiar animals according to similarities and differences in appearance, behaviour and life cycles
- Describe some changes that affect animals
- Describe ways in which animals are important to other living things and the environment

What's Wild?
Project WILD p. 2



Museum Search for Wildlife
Project WILD p. 87

- Rather than having students write down which animal they are going to portray, you may wish to assign animals to the students.
- Use extension 2 to have students classify the animals. You may wish to have them classify the animals in other ways such as habitat needs, predator or prey, appearance, or life cycle.

Lesson 3

Everybody Needs a Home
Project WILD p. 26
Two 30-min blocks
Any Season
Indoor

Goal: learn that a home is not just a house.

How: students will be able to generalize that people and other animals share a basic need to have a home.

Life Science

- Describe some changes that affect animals
- Describe ways in which animals are important to other living things and the environment

Stormy Weather
Project WILD p. 22



What Bear Goes Where?
Project WILD p. 122

- Have students include 4 – 5 items from their neighbourhood in the illustration of their home. These might include the recreation centre, the library, a friend's house, the grocery store, etc. You may wish to have students draw where they live in the centre of a large sheet of paper and branch the neighbourhood locations off from the central piece, much like a brainstorming activity, rather than have them try to map it.
- Use extension 1 to have students draw a 'neighbourhood' for an animal. Compare these animals' homes to human homes. What are the similarities? What are the differences?

Week 2

Week 2/3

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Week 3

Week 4

Lesson at a Glance

Summary

B.C. Min. of Education Learning Outcomes

Linked Activities

Assessment

Teaching Tips

Lesson 4



Habitacks
Project WILD p. 32
One 30-min block
Any Season
Outdoor

Goal: identify the basic components of habitat.

How: students identify components of habitat by using a map and exploring their school grounds.

Life Science

- Classify familiar animals according to similarities and differences in appearance, behaviour and life cycles
- Describe some changes that affect animals
- Describe ways in which animals are important to other living things and the environment

Ants on a Twig
Project WILD p.9

The Beautiful Basics
Project WILD p. 25

Visual Vocabulary
Project WILD p. 161



- You may wish to laminate the maps, the task cards and the habitat component pieces so they can be used again.
- If you wish to have them draw on the maps or task cards, wet erase markers can be used.

Lesson 5



Wildlife is Everywhere!
Project WILD p.18
Two 30-min blocks
Fall/Spring
Indoor and Outdoor

Goal: discover that wildlife is all around us.

How: students search their environment for evidence of wildlife.

Processes of Science

- Use senses to interpret observations

Life Science

- Describe some changes that affect animals
- Describe ways in which animals are important to other living things and the environment

Microtrek Scavenger Hunt
Project WILD p. 20

Urban Nature Search
Project WILD p. 127



- Ask students which senses they will use in order to search for evidence of wildlife. What might they see? Hear? Smell? Feel? Should they taste anything (no)?
 - Be sure to emphasize beforehand that often we do not see the animals themselves but rather the evidence that they have been there. Encourage students to look closely and carefully as they move through the environment.
 - You may wish to provide hand lenses, binoculars, discovery scopes and other tools to help focus attention.

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Week 5

Week 6

Lesson at a Glance

Summary

B.C. Min. of Education Learning Outcomes

Linked Activities

Assessment

Teaching Tips

Lesson 6
Habitat Rummy
Project WILD p.38
Two 30-min blocks
Any Season, Indoor



Lesson 7
Habitat Lap Sit
Project WILD p.28
One 20-min block
Any Season
Indoor or Outdoor



Lesson 8
Oh Deer!
Project WILD p.206
One 30-min block
Any Season, Outdoor

Goal: learn the components of habitat.

How: students make cards and play a card game.

Goal: find out how ecosystems are interconnected.

How: students physically form an interconnected circle to demonstrate components of habitat.

Goal: learn about limiting factors in an ecosystem.

How: students become “deer” and components of habitat in a highly involving physical activity.

Life Science

- Describe ways in which animals are important to other living things and the environment
- Classify familiar animals according to similarities and differences in appearance, behaviour and life cycles

Life Science

- Describe some changes that affect animals

Life Science

- Describe some changes that affect animals

The Beautiful Basics
Project WILD p. 25

Fashion a Fish
Project WILD p. 197

Seed Need
Project WILD p. 95

Playing Lightly on the Earth
Project WILD p. 330

Migration Headache
Project WILD p. 237

How Many Bears Can Live in This Forest?
Project WILD p. 156



- Although this activity is listed for grades 4-7, younger students enjoy it too.
- Use the habitat card masters provided to create a set of cards for each group of two to three students.
- You may wish to replace the text on the habitat information chart with the corresponding images.
- When you have worked through the activity, have students select an animal and create a series of five habitat rummy cards for that animal. Have students create a similarly sized illustration of the animal and then hang all six cards together vertically to display them.

Lesson 7 and 8

- You may wish to provide each student with three cards: Food, Water and Shelter. Students use these instead of the hand gestures to prevent confusion and sudden changes in needs/components.

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Week 7

Lesson at a Glance

Summary

B.C. Min. of Education Learning Outcomes

Linked Activities

Assessment

Teaching Tips

Lesson 9
The Food Web
One 40-min block
Any Season
Indoor and Outdoor



Lesson 10
Quick Frozen Critters
Project WILD p.147
One 30-min block
Any Season
Indoor or Outdoor

Goal: trace the energy flow through an ecosystem.

How: using a ball of string, students connect with all components of an ecosystem.

Goal: recognize the importance of predator/prey relationships.

How: students play an active game of "freeze tag".

Life Science

- Describe some changes that affect animals
- Describe ways in which animals are important to other living things and the environment

Life Science

- Classify familiar animals according to similarities and differences in appearance, behaviour and life cycles
- Describe some changes that affect animals
- Describe ways in which animals are important to other living things and the environment

What's for Dinner?
Project WILD p. 46

Owl Pellets
Project WILD p. 163

Fashion a Fish
Project WILD p. 197



- Use the animal cards created for lesson 1, Who Am I?, in this lesson. Add in a few more components such as: sun, water, and various plants and trees to complete the ecosystem.

- Give each student one ecosystem component.
- Give the student representing the sun the ball of string. Ask students to think if the component they are representing is connected to the sun somehow. Select one student (preferably representing a plant) and have the sun toss the ball to that student while keeping hold of one end of the string.

- Again ask students who is connected to this student. The second student holds onto the string and tosses the ball to the third student. The activity continues this way until all students are holding onto the web of string.

- Have students hold the string very still. Ask the sun to tug gently on the string. Any student that felt that tug should now tug gently on the string. Any students who felt the second tug should now tug gently on the string. All students should feel the connection work its way through the string.



- Ask students for an example of something that could happen to one ecosystem component that all the others might feel. Try out their suggestions e.g. a tree falls, the mouse gets eaten.

- Emphasize the connectedness of the parts of the ecosystem and how a change to one part of the food chain affects all parts of the food chain.

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Week 8

Lesson at a Glance	Summary	B.C. Min. of Education Learning Outcomes	Linked Activities	Assessment	Teaching Tips
<p>Lesson 11 </p> <p><i>The Thicket Game</i> Project WILD p.137 One 30-min block Fall/Spring Outdoor</p>	<p>Goal: understanding adaptation.</p> <p>How: students become “predator” and “prey” in a version of hide and seek.</p>	<p>Life Science</p> <ul style="list-style-type: none"> Classify familiar animals according to similarities and differences in appearance, behaviour and life cycles Describe some changes that affect animals Describe ways in which animals are important to other living things and the environment 	<p><i>What Bear Goes Where?</i> Project WILD p. 122</p> <p><i>Graphanimal</i> Project WILD p. 125</p> <p><i>Seeing Is Believing</i> Project WILD p. 142</p>	<p>✓</p>	<ul style="list-style-type: none"> Before beginning the procedure, discuss adaptation with your students. Adaptation generally takes a long time and happens over generations as changes in the environment force changes in behaviour, colouration, etc. <ul style="list-style-type: none"> Sometimes adaptation can occur quickly. Many animals have learned to adapt quickly to the changes in the environment that urban development has created e.g. raccoons. Animals that cannot adapt quickly are badly affected by sudden changes and may die or have to leave an area. E.g. the spotted owl. <ul style="list-style-type: none"> After playing the game, ask students to think of changes, either sudden or gradual, which might affect an animal. Remember, some changes can be positive such as cleaning up a stream.
<p>Lesson 12 </p> <p><i>Can Do!</i> Project WILD p.342 Time frame will vary Season and location will vary</p>	<p>Goal: conduct an action learning project.</p> <p>How: students select a school environmental project; conduct research; make plans; and follow procedures to accomplish the project.</p>	<p>Life Science</p> <ul style="list-style-type: none"> Describe some changes that affect animals Describe ways in which animals are important to other living things and the environment 	<p><i>Improving Wildlife Habitat in the Community</i> Project WILD p. 348</p> <p><i>Flip the Switch for Wildlife</i> Project WILD p. 337</p>	<p>✓</p>	<ul style="list-style-type: none"> Keep the focus of the action learning project on wildlife and ecosystems. <ul style="list-style-type: none"> This action project could be as simple as fundraising to buy a bird feeder and seed or as complex as undertaking the planting of wildlife garden. <ul style="list-style-type: none"> The Wild BC Resource, Leap Into Action, will guide you and your students through the process of brainstorming, selecting, planning and implementing an action learning project.