

# Grade Four Unit Plan

## Introduction

In this unit, students will study the needs and roles of local animals in habitats and ecosystems. Beginning with a comparison of basic needs between humans and other species, the unit then reminds us that wildlife is all around us in a variety of sizes and locations. Emphasis is placed on the interconnectedness of species with their environment and with each other. The movement of energy through different habitats and communities is learned through food chains, predator/prey relationships and nutrient cycling. The unit concludes with an examination of how human choices and actions have environmental consequences. Linking lesson references are provided for those who wish to further student learning for a given topic.

## How to use this Unit Plan

The Unit Plan was developed assuming **two 40 minute Science blocks per week with one entire morning or afternoon block for a field trip to a local wetland ecosystem.**

A 7-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](http://www.hctf.ca/wild.htm)*

## Your Notes Here

# Grade Four Unit Plan



Week 1

Lesson at a Glance	Summary	B.C. Min. of Education Learning Outcomes	Linked Activities	Assessment	Teaching Tips
<p><b>Lesson 1</b> <i>Who Am I?</i> Two 40-minute blocks Any Season Indoor or Outdoor</p>	<p><b>Goal:</b> thinking about the animals of an ecosystem.</p> <p><b>How:</b> asking only yes/no questions, students determine which animal card they are wearing.</p>	<p><b>Processes of Science</b></p> <ul style="list-style-type: none"> <li>Use data from investigations to recognize patterns and relationships and reach conclusions</li> </ul> <p><b>Life Science</b></p> <ul style="list-style-type: none"> <li>Compare the structures and behaviours of local plants and animals in different habitats and communities</li> </ul>	<p><i>Animal Charades</i> Project WILD p.4</p> <p><i>Are You Me?</i> Project WILD p.64</p> <p><i>Who Lives Here?</i> Project WILD p. 220</p>	<p>✓</p>	<ul style="list-style-type: none"> <li>This activity is an excellent introduction to the diversity of creatures found in an ecosystem.</li> <li>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.</li> <li>Hang an animal picture around each student's neck with the picture hanging down the student's back. Do NOT let the student see the picture.</li> <li>Students 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.</li> <li>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.</li> <li>When the students have identified their animal, have them choose two other animals that they have seen on someone's back that would fill a similar role in the ecosystem. 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.</li> <li>Students then research and compare the habits and life cycle of the three animals.</li> </ul>

# Grade Four Unit Plan



**Lesson at a Glance**

**Summary**

**B.C. Min. of Education Learning Outcomes**

**Linked Activities**

**Assessment**

**Teaching Tips**

**Lesson 2**



*Ants on a Twig*  
Project WILD p.9  
One 40-min block  
Fall/Spring  
Outdoor

**Goal:** identifying basic needs of humans and other animals.

**How:** students go outside to observe and demonstrate ant behaviour.

**Processes of Science**

- Use data from investigations to recognize patterns and relationships and reach conclusions

**Life Science**

- Compare the structures and behaviours of local plants and animals in different habitats and communities

*The Beautiful Basics*  
Project WILD p. 25

*What's That, Habitat?*  
Project WILD p. 36



- Be sure to point out to your students that ants are social insects – they live cooperatively in colonies and show a division of labour amongst different castes. Other social insects are bees, wasps and termites.
- Other animals exhibit social behaviour, although not necessarily with such a clear division of labour. Ask students for examples of these – humans, ground squirrels, rabbits, herons (nesting heronries may have dozens of nests), bats and wolves are just a few.

Week 2

**Lesson 3**



*Microtrek Scavenger Hunt*  
Project WILD p.20  
One 40-min block  
Fall/Spring  
Outdoor

**Goal:** discovering that wildlife is everywhere.

**How:** students go outside on a "scavenger hunt" for wildlife.

**Processes of Science**

- Use data from investigations to recognize patterns and relationships and reach conclusions

**Life Science**

- Compare the structures and behaviours of local plants and animals in different habitats and communities

*Wildlife is Everywhere!*  
Project WILD p. 18

*Museum Search for Wildlife*  
Project WILD p. 87

*Urban Nature Search*  
Project WILD p. 127

*Learning to Look, Looking to See*  
Project WILD p. 280





- Be clear with students that the search is for evidence of wildlife as well as for wildlife itself.
- Provide students with a large sheet of paper folded into six squares or with a six-page booklet to record their findings.
- When students are sharing what they found, compile a class list of observations.

# Grade Four Unit Plan



Week 3

Week 4

Lesson at a Glance	Summary	B.C. Min. of Education Learning Outcomes	Linked Activities	Assessment	Teaching Tips
<b>Lesson 4</b> <i>Habitat Rummy Project</i> WILD p.38 Two 40-min blocks Any Season Indoor	<b>Goal:</b> learning the components of habitat.  <b>How:</b> students make cards and play a card game.	<b>Life Science</b> <ul style="list-style-type: none"> <li>Compare the structures and behaviours of local plants and animals in different habitats and communities</li> </ul>	<i>Designing a Habitat</i> Project WILD p. 70  <i>Graphananimal</i> Project WILD p.125	✓	
<b>Lesson 5</b>  <i>Habitat Lap Sit</i> Project WILD p.28 One 20-min block Any Season Indoor or Outdoor	<b>Goal:</b> finding out how ecosystems are interconnected.  <b>How:</b> students physically form an interconnected circle to demonstrate components of habitat.	<b>Life Science</b> <ul style="list-style-type: none"> <li>Compare the structures and behaviours of local plants and animals in different habitats and communities</li> <li>Analyze simple food chains</li> </ul>	<i>The Edge of Home</i> Project WILD p. 177	✓	<ul style="list-style-type: none"> <li>This activity is a great way to reinforce the learning from the previous lesson, Habitat Rummy.</li> </ul>
<b>Lesson 6</b>  <i>Marsh Munchers</i> Project WILD p.172 One 40-min block Any season Indoor or Outdoor	<b>Goal:</b> identifying a food web.  <b>How:</b> students will use body movement and pantomime to simulate the feeding motions of marsh animals and identify their interconnectedness in a food web.	<b>Life Science</b> <ul style="list-style-type: none"> <li>Compare the structures and behaviours of local plants and animals in different habitats and communities</li> <li>Analyze simple food chains</li> </ul>	<i>What's for Dinner?</i> Project WILD p.46  <i>Owl Pellets</i> Project WILD p. 163  <i>Micro Odyssey</i> Project WILD p. 165	✓	

# Grade Four Unit Plan



Week 4

Week 5

**Lesson at a Glance**

**Summary**

**B.C. Min. of Education Learning Outcomes**

**Linked Activities**

**Assessment**

**Teaching Tips**

**Lesson 7**

*Oh Deer!*



Project WILD p.206  
One 40-min block  
Any Season, Outdoor

**Goal:** learning about limiting factors in an ecosystem.

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

**Processes of Science**

- Use data from investigations to recognize patterns and relationships and reach conclusions

**Life Science**

- Analyze simple food chains

*How Many Bears Can Live in This Forest?*

Project WILD p. 156



**Lesson 8**

*The Thicket Game*



Project WILD p.137  
One 40-min block  
Fall/Spring, Outdoor

**Goal:** understanding adaptation.

**How:** students become “predator” and “prey” in a version of hide and seek.

**Life Science**

- Compare the structures and behaviours of local plants and animals in different habitats and communities
- Analyze simple food chains

*Adaptation Artistry*  
Project WILD p. 139



*Fashion a Fish*  
Project WILD p. 197

- After conducting this activity, ask students if any of the limiting factors experienced in Oh Deer! might force the deer to adapt their colouration or behaviour (change in colour might protect from predation, expanding their diet may protect against starvation, etc).

**Lesson 9**

*Quick Frozen Critters*



Project WILD p.147  
One 30-min block  
Any Season,  
Indoor or Outdoor

**Goal:** recognizing the importance of predator/prey relationships.

**How:** students play an active game of “freeze tag”.

**Life Science**

- Analyze simple food chains
- Determine how personal choices and actions have environmental consequences

*Muskox Manoeuvres*  
Project WILD p. 153



- After conducting this activity, ask students if there are any similarities to the activity Oh Deer!?
- Ask if anyone has seen a grouse (a bird). This is an animal that uses ‘freezing’ as a defence mechanism. It works great in the wilderness where they camouflage with the surrounding environment, but grouse often ‘freeze’ on the road in urban areas when they sense danger. How have human actions affected this animal’s ability to defend itself?

# Grade Four Unit Plan



**Lesson at a Glance**

**Summary**

**B.C. Min. of Education Learning Outcomes**

**Linked Activities**

**Assessment**

**Teaching Tips**

**Lesson 10**



*Deadly Links*  
Project WILD p.299  
One 40-min block  
Any season  
Indoor or Outdoor

**Goal:** the consequences of pesticides entering food chains.

**How:** students become “hawks”, “shrews” and “grasshoppers” in a highly involving physical activity.

**Life Science**

- Analyze simple food chains
- Determine how personal choices and actions have environmental consequences

*Polar Bears in Winnipeg*  
Project WILD p. 145



*Deadly Skies*  
Project WILD p. 319

*Deadly Waters*  
Project WILD p. 322

- For more information about pesticides in British Columbia visit the Ministry of Agriculture website at [http://www.agf.gov.bc.ca/pesticides/a\\_3.htm](http://www.agf.gov.bc.ca/pesticides/a_3.htm)

**Lesson 11**



*Migration Headache*  
Project WILD p.237  
One 40-min block  
Any season  
Indoor or Outdoor

**Goal:** understanding the importance of wetlands to migrating birds.

**How:** students role play migrating water birds travelling between nesting habitats and wintering grounds and are subject to hazards at either end of the migration path as well as along the way.

**Earth and Space Science**

- Analyze the impacts of weather on living and non-living things

**Life Science**

- Compare the structures and behaviours of local plants and animals in different habitats and communities
- Analyze simple food chains
- Determine how personal choices and actions have environmental consequences

*Hooks and Ladders*  
Project WILD p. 184



*Turtle Hurdles*  
Project WILD p. 363

- Watching the movie ‘Winged Migration’ is a wonderful way to connect students with a sense of what migration entails for wild birds

Week 6

# Grade Four Unit Plan



**Lesson at a Glance**

**Summary**

**B.C. Min. of Education Learning Outcomes**

**Linked Activities**

**Assessment**

**Teaching Tips**

**Lesson 12**

*Enviro-Ethics*  
Project WILD p.351  
One to Two 40-min blocks  
Any Season  
Indoor

**Goal:** taking action in the community.

**How:** students develop and use a "Personal Code of Environmental Ethics".

**Life Science**

- Determine how personal choices and actions have environmental consequences

*Animal Poetry*  
Project WILD p. 85

*Changing Attitudes*  
Project WILD p. 257

*Cartoons and Bumper Stickers*  
Project WILD p. 268

*Ethi-Thinking*  
Project WILD p. 328



- Discuss with students the variety of ways that humans impact wildlife that have been covered in this unit: urban sprawl, pesticide use, over hunting, oil spills.
  - Brainstorm a list of ways that humans impact wildlife through smaller, more common actions: wasting water, not recycling, littering, damaging habitat through play or bike riding in sensitive areas, allowing dogs and cats to harass wildlife, turning over rocks or logs and not putting them back, feeding bread to ducks, etc.
    - Use the list to generate ideas about changing personal behaviour in order to protect wildlife and the environment.
      - Caution students against making huge statements about behaviour (I'll never waste water again!) and keep ideas manageable.
        - When students have developed their own personal code, you may wish to have them create an art piece to go with it and display their work. Collage is a great accompaniment to this activity.

Week 7