

# Grade Six Unit Plan

## Introduction

This unit plan is designed to expose students to the components of all habitats (food, water, shelter, space) and to explore adaptations of organisms in the various aquatic and terrestrial ecosystems. Students will have opportunity to use microscopes and magnifying glasses to assist in their hands-on research. Observing organisms will assist them in understanding how life forms can survive. To culminate the unit, students will initiate, plan and execute an action-learning project that will help to improve one of the ecosystems that they have studied. Linked activities have been provided for each lesson should you wish to further investigate 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 fieldtrip to a local wetland ecosystem.**

A 7-week implementation, broken down into 10 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 Dragonfly Symbol indicates that the lesson has a component of physical activity. The Assessment column indicates that an Assessment Tool and Rubric is available and can be found on the Teacher CD.

## 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 Six Unit Plan



**Lesson at a Glance**

**Summary**

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

**Linked Activities**

**Assessment**

**Teaching Tips**

**Lesson 1**

*Habitat Lap Sit*  
Project WILD p. 28  
One 40-min block  
Any Season  
Indoor or Outdoor

**Goal:** an introductory lesson.

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

**Life Science**

- Analyse how different organisms adapt to their environments

*Habitat Rummy*  
Project WILD p. 38



*My Kingdom for a Shelter*  
Project WILD p. 44

- Prior to this lesson teach students the characteristics that define all living things (reproduce, grow, respire, use energy, respond to stimuli).
- Also teach the basic characteristics of the organisms that belong to the 5 kingdoms.
- Review the four components of habitat – food, water, shelter and space in a suitable arrangement.

Week 1

**Lesson 2**



*Puddle Wonders*  
Project WILD p. 72  
Two 40-min blocks  
Spring best/possibly Fall  
Outdoor

**Goal:** observing the benefits and challenges of life in a temporary wetland.

**How:** Students will observe water that accumulates in puddles on or near the school grounds as well as any associated wildlife. Students will also measure the depth, area and volume of the puddle.

**Life Science**

- Demonstrate the appropriate use of tools to examine living things that cannot be seen with the naked eye.
- Analyse how different organisms adapt to their environments
- Distinguish between life forms as single or multi-celled organisms and belonging to one of five kingdoms: Plantae, Animalia, Monera, Protista, Fungi

*Water Canaries*  
Project WILD p. 109



*Rainfall and the Forest*  
Project WILD p. 188

- You may wish to have students take water samples from the puddles to examine under a microscope. If you choose to do this, be sure to teach students how to properly use a microscope prior to this lesson.

# Grade Six Unit Plan



Week 2

Week 3

**Lesson at a Glance**

**Summary**

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

**Linked Activities**

**Assessment**

**Teaching Tips**

**Lesson 3**  
*Wetland Metaphors*  
Project WILD p. 168  
One 40-min block  
Any Season  
Indoor or Outdoor

**Goal:** understanding the importance of wetlands.

**How:** Students are presented with a selection of “hands-on” objects for investigation as metaphors for natural functions of wetlands.

**Life Science**

- Analyse how different organisms adapt to their environments

*Water Wings*  
Project WILD p. 57

*Marsh Munchers*  
Project WILD p. 172

*Where Does Water Go After School?*  
Project WILD p. 191



**Lesson 4**  
*Micro Odyssey*  
Project WILD p. 165  
Three 40-min blocks  
Fall/ Late Spring  
Outdoor and Indoor



**Goal:** examining micro-organisms in pond water.

**How:** Students will examine, draw, paint and identify microorganisms in pond water.

**Life Science**

- Demonstrate the appropriate use of tools to examine living things that cannot be seen with the naked eye.
- Analyse how different organisms adapt to their environments
- Distinguish between life forms as single or multi-celled organisms and belonging to one of five kingdoms: Plantae, Animalia, Monera, Protista, Fungi

*Riparian Retreat*  
Project WILD p. 105

*Blue Ribbon Niche*  
Project WILD p. 180



- Be sure to return water samples to the same water source they were taken from. Returning it to a different water source could introduce new species to the water source or spread plants, disease or other complications.

# Grade Six Unit Plan



Week 4

Week 5

Lesson at a Glance	Summary	B.C. Min. of Education Learning Outcomes	Linked Activities	Assessment	Teaching Tips
<p><b>Lesson 5</b> <i>Eco-Enrichers</i> Project Wild p. 92 Two 40-min blocks + ongoing observation Fall/Spring Outdoor</p>	<p><b>Goal:</b> recognizing the contribution of wildlife to ecological systems.</p> <p><b>How:</b> Students experiment with soil and earthworms.</p>	<p><b>Life Science</b></p> <ul style="list-style-type: none"> <li>Demonstrate the appropriate use of tools to examine living things that cannot be seen with the naked eye.</li> <li>Analyse how different organisms adapt to their environments</li> <li>Distinguish between life forms as single or multi-celled organisms and belonging to one of five kingdoms: Plantae, Animalia, Monera, Protista, Fungi</li> </ul>	<p><i>Environmental Barometer</i> Project WILD p. 98</p> <p><i>Who Lives Here?</i> Project WILD p. 220</p>	<p>✓</p>	<ul style="list-style-type: none"> <li>At each stage of observation, have students examine soil from each of the three samples under a microscope. Record observations, noting differences between the three samples. Also note differences in each sample between observations.                             <ul style="list-style-type: none"> <li>An interesting addition to this experiment would be the addition of a worm composter to the classroom environment. Contact your local recycling facility for information on how to obtain a worm composting system.</li> </ul> </li> </ul>
<p><b>Lesson 6</b> <i>The Thicket Game</i> Project WILD p. 137 One 40-min. block Fall/Spring Outdoor</p>	<p><b>Goal:</b> a lesson on adaptations for survival.</p> <p><b>How:</b> Students become “predators” and “prey” in a version of “hide and seek”.</p>	<p><b>Life Science</b></p> <ul style="list-style-type: none"> <li>Analyse how different organisms adapt to their environments</li> </ul>	<p><i>Colour Crazy</i> Project WILD p. 11</p> <p><i>Fashion a Fish</i> Project WILD p. 197</p>	<p>✓</p>	<ul style="list-style-type: none"> <li>Introduce students to the concepts of “adaptation” and “limiting factors” before playing this game.</li> </ul>

# Grade Six Unit Plan



**Lesson at a Glance**

**Summary**

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

**Linked Activities**

**Assessment**

**Teaching Tips**

Week 5

**Lesson 7**



*Quick Frozen Critters*  
Project WILD p. 147  
One 40-min block  
Any Season  
Indoor or Outdoor

**Goal:** understanding the importance of adaptations in predator/prey relationships.

**How:** Students play an active version of “freeze tag”.

**Life Science**

- Analyse how different organisms adapt to their environments

*Adaptation Artistry*  
Project WILD p. 139

*Owl Pellets*  
Project WILD p. 163



Week 6

**Lesson 8**



*Muskox Manoeuvres*  
Project WILD p. 153  
One 40-min block  
Any Season  
Indoor or Outdoor

**Goal:** evaluating the effectiveness of some adaptations .

**How:** Students simulate muskoxen and wolves in a highly involving game of physical activity.

**Life Science**

- Analyse how different organisms adapt to their environments

*Classroom Carrying Capacity*  
Project WILD p. 150

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



# Grade Six Unit Plan



Week 6

Week 7

Lesson at a Glance	Summary	B.C. Min. of Education Learning Outcomes	Linked Activities	Assessment	Teaching Tips
<p><b>Lesson 9</b> <i>Deadly Links</i> Project WILD p. 299 One 40 min. period Any Season Indoor or Outdoor</p>	<p><b>Goal:</b> understanding consequences of pesticides entering food chains.</p> <p><b>How:</b> Students become “hawks”, “shrews” and “grasshoppers” in a highly-involving physical activity.</p>	<p><b>Life Science</b></p> <ul style="list-style-type: none"> <li>Analyse how different organisms adapt to their environments</li> </ul>	<p><i>Deadly Skies</i> Project WILD p. 319</p> <p><i>Deadly Waters</i> Project WILD p. 322</p>	<p>✓</p>	
<p><b>Lesson 10</b> <i>Can Do!</i> Project WILD p. 345 Variable</p>	<p><b>Goal:</b> a culminating activity.</p> <p><b>How:</b> Students select an environmental project; conduct research; make plans; and follow procedures to accomplish the project.</p>	<p><b>Processes of Science</b></p> <ul style="list-style-type: none"> <li>Manipulate and control a number of variables in an experiment</li> <li>Apply solutions to a technical problem</li> </ul>	<p><i>Waters Going On?!</i> Project WILD p. 332</p> <p><i>What Did Your Lunch Cost Wildlife?</i> Project WILD p. 335</p> <p><i>Improving Wildlife Habitat in the Community</i> Project WILD p. 348</p>	<p>✓</p>	<ul style="list-style-type: none"> <li>You may wish to guide your students toward a project that will support or enhance one of the ecosystems they have studied and/or visited.</li> <li>Action Learning Projects may include a shoreline/stream cleanup; building bird nests and hanging them in trees in their playground; a litter hunt; posting Wildlife Tree signs on wildlife trees; creating and presenting a play about important ecosystems to other classes; teaching buddy classes about one of the ecosystems they have studied to further awareness to other students; or painting fish signs on storm drains, etc.</li> <li>The Wild BC publication, <b>Leap Into Action! Simple Steps to Environmental Action</b> — is an excellent resource that will assist you and your students in choosing, planning and implementing action learning in your classroom.</li> </ul>