

**MODULE WLD2040: WILDLIFE SPACES & SPECIES**

**Level:** Intermediate

**Theme:** Technology and Applications

**Prerequisite:** None

**Module Description:** Students present the results of research on wildlife spaces and species in Alberta and other parts of the world, and compare different strategies used in wildlife management.

**Module Parameters:** Access to relevant government and community resources.

**Curriculum and Assessment Standards**

Module Learner Expectations	Assessment Criteria and Conditions	Suggested Emphasis
<p><i>The student will:</i></p> <ul style="list-style-type: none"> <li>identify and compare representative ecoregions in Alberta and Canada with similar ecoregions in other parts of the world</li> <li>identify and describe threatened or endangered wildlife spaces and species in Alberta and Canada</li> </ul>	<p><i>Assessment of student achievement should be based on:</i></p> <ul style="list-style-type: none"> <li>completing a research project on representative wildlife spaces and species in Canada and other parts of the world. Research to involve identification of:               <ul style="list-style-type: none"> <li>seven major ecoregions of Canada</li> <li>five World Heritage sites.</li> </ul> <p><i>Assessment Tool</i>  <i>Research Process: Representative Wildlife Spaces and Species, WLD2040-1</i></p> <p><i>Standard</i>  <i>Complete all components of the research project to a standard of 2</i></p></li> </ul> <ul style="list-style-type: none"> <li>a teacher-prepared assessment in which the student demonstrates general knowledge of Canada’s spaces and species.               <p><i>Assessment Tool</i>  <i>Sample Assessment Items: Canada’s Spaces and Species, WLD2040-2</i></p> <p><i>Standard</i>  <i>Response indicating 80% mastery</i></p></li> </ul> <ul style="list-style-type: none"> <li>identifying and explaining:               <ul style="list-style-type: none"> <li>the roles of the Committee on the Status of Endangered Wildlife in Canada (COSEWIC) and the Canadian Register of Heritage Properties (CRHP)</li> <li>the five categories of species at risk in Canada</li> <li>methods used to identify spaces at risk in Canada.</li> </ul> <p><i>Assessment Tool</i>  <i>Knowledge/Application Assessment: Endangered Spaces and Species, WLD2040-3</i></p> <p><i>Standard</i>  <i>Respond to a standard of 2 on the rating scale</i></p> </li> </ul>	<p>30</p> <p>40</p>

**MODULE WLD2040: WILDLIFE SPACES & SPECIES (continued)**

Module Learner Expectations	Assessment Criteria and Conditions	Suggested Emphasis
<p><i>The student will:</i></p> <ul style="list-style-type: none"> <li>• describe and compare local and global strategies for wildlife protection and habitat management</li> <li>• demonstrate basic competencies.</li> </ul>	<p><i>Assessment of student achievement should be based on:</i></p> <ul style="list-style-type: none"> <li>• a presentation or report on a threatened or endangered space or species in Alberta or Canada. Presentation/report to address:               <ul style="list-style-type: none"> <li>– identification of the space or species through oral/written description <u>and</u> an illustration/map</li> <li>– the range of the species or area of the space as indicated on a map</li> <li>– past and present population numbers and/or changes in boundaries</li> <li>– factors contributing to the present status of the space or species</li> <li>– actions being taken to preserve the space or species.</li> </ul> </li> </ul> <p><i>Assessment Tool</i>  <i>Presentations/Reports: Intermediate Level, WLDPRE-2</i></p> <p><i>Standard</i>  <i>Achieve a minimum rating of 2 on the rating scale for Presentations/Reports</i></p> <ul style="list-style-type: none"> <li>• identifying and comparing roles, responsibilities and strategies relevant to two local, two national and two international programs currently implemented to manage and protect spaces and species.</li> </ul> <p><i>Assessment Tool</i>  <i>Knowledge/Application Assessment: Wildlife Management Programs, WLD2040-4</i></p> <p><i>Standard</i>  <i>Respond to a standard of 2 on the rating scale</i></p> <ul style="list-style-type: none"> <li>• observations of individual effort and interpersonal interaction during the learning process.</li> </ul> <p><i>Assessment Tool</i>  <i>Basic Competencies Reference Guide and any assessment tools noted above</i></p>	<p>30</p> <p>Integrated throughout</p>

**MODULE WLD2040: WILDLIFE SPACES & SPECIES (continued)**

Concept	Specific Learner Expectations	Notes
<p>Representative Spaces and Species</p>	<p><i>The student should:</i></p> <ul style="list-style-type: none"> <li>• identify representative ecoregions in Alberta and Canada, and indicator species found in these regions</li> <li>• illustrate the interdependence of wildlife species within selected ecoregions of Alberta and Canada; e.g.:               <ul style="list-style-type: none"> <li>– food webs</li> <li>– energy chains</li> </ul> </li> <li>• identify regulating factors for wildlife species within selected ecoregions of Alberta and Canada; e.g.:               <ul style="list-style-type: none"> <li>– food and water</li> <li>– habitat</li> <li>– predators</li> <li>– carrying capacity</li> <li>– species competition</li> <li>– disease/parasites</li> <li>– other environmental factors</li> </ul> </li> <li>• compare representative ecoregions in Alberta and Canada with similar ecoregions in other parts of the world; e.g.:               <ul style="list-style-type: none"> <li>– climate</li> <li>– geography</li> <li>– indicator species.</li> </ul> </li> </ul>	<p>Suggested teacher resource for back-ground information: <i>The Nature of Canada: A Primer on Spaces and Species</i> (Environment Canada).</p> <p>Obtain <i>Natural Regions of Alberta</i> map (Alberta Environmental Protection).</p> <p>Outline major ecoregions of Canada on a map.</p> <p>Design a food web for a first-level carnivore found in Alberta.</p> <p>Compare and contrast wildlife in similar ecoregions around the world.</p>
<p>Endangered Spaces and Species</p>	<ul style="list-style-type: none"> <li>• research policy and factors used to determine if a species or population is endangered</li> <li>• define and give examples of endangered spaces and species</li> <li>• explain how societal actions may cause wildlife spaces and species to become threatened or endangered; e.g.:               <ul style="list-style-type: none"> <li>– human population growth</li> <li>– habitat loss: deforestation and agriculture</li> <li>– unsustainable use of renewable resources</li> <li>– wasteful consumption</li> <li>– pollution</li> </ul> </li> </ul>	<p>Discuss factors used to determine the status (population health) of wildlife.</p> <p>Consider direct and indirect causes of extinction:</p> <ul style="list-style-type: none"> <li>• overfishing</li> <li>• habitat loss.</li> </ul> <p>Investigate:</p> <ul style="list-style-type: none"> <li>• The Endangered Spaces Campaign</li> <li>• The Canadian Wilderness Charter</li> <li>• Canadian Council on Ecological Areas</li> <li>• Special Places 2000.</li> </ul>

**MODULE WLD2040: WILDLIFE SPACES & SPECIES (continued)**

Concept	Specific Learner Expectations	Notes
Endangered Spaces and Species (continued)	<p><i>The student should:</i></p> <ul style="list-style-type: none"> <li>• present the results of research on an endangered wildlife space or species in Alberta or Canada.</li> </ul>	See “Focus on Research.”
Canada in a Global Context	<ul style="list-style-type: none"> <li>• explain the role of protected spaces in managing ecosystems at local, national and global levels; e.g.:               <ul style="list-style-type: none"> <li>– parks</li> <li>– wildlife and wilderness areas</li> <li>– migratory bird sanctuaries</li> <li>– ecological reserves</li> <li>– world heritage sites</li> <li>– private landowners</li> <li>– grazing reserves</li> </ul> </li> <li>• explain the role of public and private organizations in Canada and other nations with regard to managing and protecting wildlife; e.g.:               <ul style="list-style-type: none"> <li>– government</li> <li>– industry</li> <li>– environmental and other organizations</li> </ul> </li> <li>• compare policies/philosophies regarding the sustainable management of wildlife and habitat in Canada with those of other nations and governments</li> <li>• summarize the viewpoints of indigenous peoples in Canada and other nations regarding the management of wildlife spaces and species; e.g.:               <ul style="list-style-type: none"> <li>– traditional wilderness use</li> <li>– current use and future directions.</li> </ul> </li> </ul>	<p>Discuss the roles of provincial and federal governments in establishing policy for wildlife protection and management.</p> <p>Locate World Heritage sites in Canada and other parts of the world.</p> <p>Interview two or more persons working in support of a protected space. Summarize viewpoints regarding the value of protected spaces in managing wildlife and habitat.</p>