

# MODULE CURRICULUM AND ASSESSMENT STANDARDS:

## SECTION D: INTRODUCTORY LEVEL

The following pages define the curriculum and assessment standards for the introductory level of Wildlife.

Introductory level modules help students build daily living skills and form the basis for further learning. Introductory modules are developed for students who have no previous experience in the strand.

Module learner expectations define the competencies a student must demonstrate to achieve success in a module. Assessment standards define the criteria and conditions to be used for assessing the competencies defined in the module learner expectations.

Specific learner expectations provide a detailed framework for instruction to help students build the competencies defined in the module learner expectations. Additional information and suggestions for instruction are provided in the Notes column; teachers may wish to use this space to record their ideas for instruction or student projects.

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**MODULE WLD1010: WHAT IS WILDLIFE?**

**Level:** Introductory

**Theme:** Social and Cultural Perspectives

**Prerequisite:** None

**Module Description:** Students demonstrate knowledge of wildlife and ecosystems, and examine the need to manage and conserve wildlife.

**Module Parameters:** Access to a science laboratory and outdoor environment.

**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>provide a definition of wildlife</li> </ul>	<p><i>Assessment of student achievement should be based on:</i></p> <ul style="list-style-type: none"> <li>a comprehensive definition of wildlife based on:               <ul style="list-style-type: none"> <li>current wildlife policies established for Alberta and Canada</li> <li>personal experience with and response to wildlife.</li> </ul> </li> </ul> <p><i>Assessment Tool</i>  <i>Knowledge/Application Assessment: A Definition for Wildlife, WLD1010-1</i>            A Wildlife Policy for Canada, <i>Canadian Wildlife Service</i></p> <p><i>Standard</i>  <i>Address 6 of the criteria for a definition of wildlife (as identified in WLD1010-1) to a standard of 1 on the rating scale</i></p> <ul style="list-style-type: none"> <li>identifying and describing the range of wildlife species, both plant and animal, that are present in Alberta.</li> </ul> <p><i>Assessment Tool</i>            Alberta Wildlife Viewing Guide            Nature Alberta: An Illustrated Guide to Common Plants and Animals</p> <p><i>Standard</i>  <i>Identify the common names, distinguishing characteristics and habitats of 20 different Alberta wildlife species; identification to include wild plants, invertebrates, fish, amphibians, reptiles, birds and mammals</i></p>	<p>20</p>

**MODULE WLD1010: WHAT IS WILDLIFE?** (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 interrelationships among ecosystem components</li> </ul>	<p><i>Assessment of student achievement should be based on:</i></p> <ul style="list-style-type: none"> <li>preparing a diagram of a food web or energy chain that illustrates the interrelatedness of ecosystem components. <i>Assessment Tool</i> <i>Sample Food Chain Scenario, WLD1010–2</i> <i>Standard</i> <i>Illustrate the interrelatedness of biotic and abiotic ecosystem components; include decomposers, producers and consumers</i></li> <li>identifying and explaining six limiting factors and their affects on wildlife populations. <i>Assessment Tool</i> <i>Knowledge/Application Assessment: Limiting Factors for Wildlife Populations, WLD1010–3</i> <i>Standard</i> <i>Respond to a standard of 1 on the rating scale</i></li> <li>conducting a laboratory or field investigation that monitors the effects of environmental/limiting factors on a wildlife population. <i>Assessment Tool</i> <i>Lab or Field Investigation: Limiting Factors for Wildlife Populations, WLD1010–4</i> <i>Standard</i> <i>Perform investigation to a standard of 1 on the rating scale</i></li> <li>a teacher-prepared assessment in which the student demonstrates knowledge of basic ecosystem concepts. <i>Assessment Tool</i> <i>Ecosystems (Teacher Resource Guide)</i> <i>Sample Assessment Items: Ecosystem Concepts, WLD1010–5</i> <i>Standard</i> <i>Response indicating 60% mastery</i></li> </ul>	<p>60</p>



**MODULE WLD1010: WHAT IS WILDLIFE?** (continued)

Concept	Specific Learner Expectations	Notes
Awareness	<p><i>The student should:</i></p> <ul style="list-style-type: none"> <li>• write a definition of wildlife based upon personal experience and the results of research</li>   <li>• give evidence of diversity among Alberta's wildlife species.</li> </ul>	<p>Subscribe to <i>Update</i> (a magazine for environmental educators published by FEESA), <i>Equinox</i> or <i>Environmental Views</i>.</p> <p>See <i>A Wildlife Policy for Canada</i> and <i>The Status of Wildlife in Alberta</i>.</p> <p>Research different definitions of wildlife; emphasize that according to wildlife policy in Canada, wildlife includes both animal and plant life.</p> <p>Make special note of Alberta's native species of flora and fauna.</p>
Ecosystems	<ul style="list-style-type: none"> <li>• identify biotic and abiotic components of a local ecosystem; e.g.:               <ul style="list-style-type: none"> <li>– soil, water and air characteristics</li> <li>– climate</li> <li>– plant and animal species</li> <li>– micro-organisms</li> </ul> </li>   <li>• explain the interrelatedness of components within a habitat; e.g.:               <ul style="list-style-type: none"> <li>– interrelationships among food, water, shelter and space</li> <li>– relationship of soil, water and air characteristics to plant and animal health</li> </ul> </li>   <li>• analyze relationships among wildlife species; e.g.:               <ul style="list-style-type: none"> <li>– role of producers, consumers and decomposers</li> <li>– food webs and energy chains</li> <li>– social organizations and species competition</li> </ul> </li> </ul>	<p>See "A Guide to the Ecosystem Concept" (<i>Project Wild</i>, p. 439).</p> <p>Inventory biotic and abiotic ecosystem components.</p> <p>Given a picture/ photograph of a local habitat altered naturally or by humans, discuss possible consequences for three wildlife species.</p> <p>Draw food webs/ pyramids and energy chains using <i>Natural Regions of Alberta</i> posters.</p>

**MODULE WLD1010: WHAT IS WILDLIFE?** (continued)

Concept	Specific Learner Expectations	Notes
Ecosystems (continued)	<p><i>The student should:</i></p> <ul style="list-style-type: none"> <li>• identify environmental factors that affect wildlife populations; e.g.:               <ul style="list-style-type: none"> <li>– natural versus non-natural mortality</li> <li>– climatic conditions</li> <li>– pollution</li> <li>– loss of habitat</li> </ul> </li>   <li>• relate the concepts of “limiting factors” and “carrying capacity” to wildlife populations</li> <li>• identify factors associated with adaptation and change in species.</li> </ul>	<p>Consider factors that determine carrying capacity.</p> <p>See “Checks and Balances” and “Deadly Links” (activities in <i>Project Wild</i>).</p> <p>Discuss natural and human-caused changes in habitat, and the effects of these changes on wildlife species.</p> <p>Consider ecosystem components/ relationships of particular significance during the winter season.</p> <p>See <i>Project Wild</i> (“Oh Deer - How Many Bears Can Live in the Forest?”).</p> <p>Distinguish between structural, physiological and behavioural adaptation.</p>
Wildlife Conservation and Preservation	<ul style="list-style-type: none"> <li>• compare wildlife conservation with preservation</li> <li>• explain how the well-being of both humans and wildlife depend upon the quality of the natural environment</li> <li>• state differing opinions regarding wildlife conservation, preservation and sustainable management of the environment.</li> </ul>	<p>Cite Canadian examples of conservation and preservation.</p>





**MODULE WLD1020: NATURAL HISTORY OF WILDLIFE** (continued)

Module Learner Expectations	Assessment Criteria and Conditions	Suggested Emphasis
<p><i>The student will:</i></p> <ul style="list-style-type: none"> <li>• compare and contrast Alberta’s wildlife with wildlife in other parts of the world</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>• given one of Alberta’s six natural regions, designing a “critter” (i.e., wildlife species) that reflects structural, physiological and behavioural adaptations suited to that environment.</li> </ul> <p><i>Assessment Tool</i>  <i>Project Assessment: “Design a Critter,”</i>  <i>WLD1020–3</i></p> <p><i>Standard</i>  <i>Complete all tasks to a standard of 1 on the rating scale</i></p> <ul style="list-style-type: none"> <li>• a presentation or report that compares two similar ecosystems in different parts of the world with respect to: <ul style="list-style-type: none"> <li>– Earth history</li> <li>– geography/climate</li> <li>– number of different species</li> <li>– relative number of niches.</li> </ul> </li> </ul> <p><i>Assessment Tool</i>  <i>Presentations/Reports: Introductory Level,</i>  <i>WLDPRE–1</i></p> <p><i>Standard</i>  <i>Achieve a minimum rating of 1 on the rating scale for Presentations/Reports</i></p> <ul style="list-style-type: none"> <li>• defining biodiversity, and suggesting possible reasons for differences within and among wildlife species/spaces in Alberta as compared to those in other parts of the world.</li> </ul> <p><i>Assessment Tool</i>  <i>Knowledge/Application Assessment: Biodiversity,</i>  <i>WLD1020–4</i></p> <p><i>Standard</i>  <i>Respond to a standard of 1 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 Tools</i>  <i>Basic Competencies Reference Guide and any assessment tools noted above</i></p>	<p>25</p> <p>Integrated throughout</p>

**MODULE WLD1020: NATURAL HISTORY OF WILDLIFE** (continued)

Concept	Specific Learner Expectations	Notes
Diversity of Wildlife	<p><i>The student should:</i></p> <ul style="list-style-type: none"> <li>• describe the major groups of wildlife present in Alberta and Canada; e.g.:               <ul style="list-style-type: none"> <li>– micro-organisms</li> <li>– invertebrates</li> <li>– plants</li> <li>– insects</li> <li>– fish, amphibians, reptiles</li> <li>– birds, mammals</li> </ul> </li> <li>• identify and compare species within major groups of wildlife</li> <li>• give examples of wildlife species present in rural and urban environments and water and land ecosystems.</li> </ul>	<p>Research representative wildlife groups for major biomes in Alberta and Canada.</p>
Structure, Behaviour and Habitat	<ul style="list-style-type: none"> <li>• compare the structure, behaviour and habitat of species that characterize Alberta’s wildlife</li> <li>• explain interactions of selected wildlife species with other species and the environment; e.g.:               <ul style="list-style-type: none"> <li>– predator/prey relationships</li> <li>– food chains/webs</li> <li>– symbiosis/parasitism</li> <li>– commensalism/mutualism</li> </ul> </li> <li>• illustrate how wildlife species adapt to their environments</li> <li>• explain why certain wildlife species may live in some regions of Alberta and Canada, and not in others</li> <li>• conduct a research study on one or more wildlife species present in Alberta; e.g.:               <ul style="list-style-type: none"> <li>– structural and behavioural adaptations</li> <li>– interaction with other species</li> <li>– habitat</li> <li>– life cycle</li> <li>– social organization.</li> </ul> </li> </ul>	<p>Focus attention on Alberta’s six natural regions. Learn to recognize wildlife signs, tracks, behaviours, scat, etc.</p> <p>Design food webs/ pyramids and energy chains using <i>Natural Regions of Alberta</i> posters.</p> <p>Give examples of wildlife adaptation success.</p> <p>See “Focus on Research.”</p> <p>Use magazines/ encyclopedias, resource persons, public libraries, web sites, government brochures, etc.</p> <p>Make plaster casts of animal tracks; collect fur specimens, skulls, bones, nests, etc.</p> <p>Reference activities provided in <i>The Art of Seeing and Tracking</i>.</p>

**MODULE WLD1020: NATURAL HISTORY OF WILDLIFE** (continued)

Concept	Specific Learner Expectations	Notes
Global Context	<p><i>The student should:</i></p> <ul style="list-style-type: none"> <li>• compare diversity among living organisms in Alberta and other parts of the world</li> <li>• identify reasons for differences in diversity among living organisms in Alberta and other parts of the world; e.g.:               <ul style="list-style-type: none"> <li>– Earth history</li> <li>– evolution</li> <li>– extinction</li> <li>– number of niches</li> <li>– biotic and abiotic factors</li> <li>– human influences.</li> </ul> </li> </ul>	<p>Compare the boreal forest in Canada with the boreal forest in Asia.</p> <p>If Alberta data are not available, compare diversity in temperate to tropic regions or temperate to arctic regions.</p>

## MODULE WLD1030: OUTDOOR EXPERIENCES 1 (SURVIVAL SKILLS)

<b>Level:</b>	Introductory
<b>Theme:</b>	Social and Cultural Perspectives
<b>Prerequisite:</b>	Emergency First Aid (current certification)
<b>Module Description:</b>	Students demonstrate the basic skills required for responsible participation in a range of outdoor activities.

**Module Parameters:** Access to an outdoor wilderness environment (e.g., one of Alberta’s six natural regions) and gear for outdoor expeditions.

Instructor training (current certification) in Standard Level First Aid is required; instructor training in First Aid in the Wilderness is recommended.

Teachers may find it desirable to access the services of a qualified Outdoor Guide in delivering components of this module.

Off-campus learning activities must be commensurate with previous levels of wilderness training and experience; day trips should precede extended overnight trips; experience in hardcover camping should precede potential softcover camping and/or emergency shelter camping opportunities.

**Note:** Specific learner expectations in Outdoor Experiences 1 and 2 link with the *National Occupational Standards for Outdoor Guide* (Alberta Tourism Education Council), and address core skills in Environmental Awareness, Camp and/or Trip Operation, Safety and Survival.

See Section C (Planning for Instruction) and Section H (Linkages/Transitions) of this Guide for further information on instructor training/certification and linkages.

**Supporting Module:** CTR1210 Personal Safety (Management)

Because of the practical nature of this module, students must have a general knowledge of basic first-aid and survival techniques relevant to wilderness environments. See Planning for Instruction in Section C for further information on student safety.

**Note:** WLD1030 and WLD2030 (Outdoor Experiences 1 and 2) provide opportunities for wilderness interaction at a personal level. This module sequence should place emphasis on developing skills that will enable students to safely observe and appreciate wildlife and habitat within one or more of Alberta’s six natural regions.



**MODULE WLD1030: OUTDOOR EXPERIENCES 1 (SURVIVAL SKILLS) (continued)**

Module Learner Expectations	Assessment Criteria and Conditions	Suggested Emphasis
<p><i>The student will:</i></p> <ul style="list-style-type: none"> <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>maintaining a log/journal of outdoor experiences that provides summative reflection on:                             <ul style="list-style-type: none"> <li>individual and group preparedness, cooperation and responsibility</li> <li>observations of wildlife and habitat</li> <li>environmental ethics.</li> </ul> </li> </ul> <p><i>Assessment Tool</i>  <i>Reflection Guide for Outdoor Experiences, WLDREF-OUT</i></p> <p><i>Standard</i>  <i>Complete five log/journal entries; address criteria for reflection to a standard of 1 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 Tools</i>  <i>Basic Competencies Reference Guide and any assessment tools noted above</i></p>	<p>Integrated throughout</p>

Concept	Specific Learner Expectations	Notes
<p>Wilderness Experience</p>	<p><i>The student should:</i></p> <ul style="list-style-type: none"> <li>identify, assess, avoid and/or respond to physical hazards that may be imposed by the natural environment; e.g.:                             <ul style="list-style-type: none"> <li>particular terrain and conditions, including avalanche, rock slides, lake and river ice, and bush travel</li> <li>wildlife that may be encountered, including bears, bees, ticks, nonedible plants, snakes</li> <li>changes in weather conditions that may affect personal and group safety</li> </ul> </li> <li>identify, assess, avoid and/or respond to physiological and psychological factors often associated with outdoor experiences; e.g.,                             <ul style="list-style-type: none"> <li>dealing with hypothermia, frostbite, dehydration and heat stroke</li> <li>understanding fatigue and when not to move</li> <li>coping with adversities, such as getting lost or hurt</li> </ul> </li> </ul>	<p><b>Student safety must be a prime consideration in selecting learning activities within this module. Activities must be consistent with student knowledge and skill levels.</b></p> <p>Investigate hazards pertinent to a particular activity. View films and slide shows of outdoor activities that involve physical hazards.</p> <p>Invite guest speakers to present information and advice on expeditions.</p>

**MODULE WLD1030: OUTDOOR EXPERIENCES 1 (SURVIVAL SKILLS)** (continued)

Concept	Specific Learner Expectations	Notes
<p>Wilderness Experience (continued)</p>	<p><i>The student should:</i></p> <ul style="list-style-type: none"> <li>• list and explain necessary steps to take in emergency and survival situations in the outdoors; e.g.:               <ul style="list-style-type: none"> <li>– what to do if lost or separated from the group</li> <li>– first aid and emergency response to injury</li> <li>– construction of emergency shelters</li> <li>– how to gather food from edible plants</li> <li>– en route organizational strategies, including lead and sweep, regrouping procedures, pacing</li> </ul> </li> <li>• select appropriate personal and group gear for outdoor activities; e.g.:               <ul style="list-style-type: none"> <li>– personal gear, with consideration to maintaining body temperature and protection from injury</li> <li>– group gear, to meet requirements for food, shelter, travel and emergencies</li> </ul> </li> <li>• demonstrate safe use and appropriate care of outdoor hand tools, including knives, axes and saws</li> <li>• demonstrate safe procedures for building and using outdoor fires; e.g.:               <ul style="list-style-type: none"> <li>– signalling</li> <li>– warming</li> <li>– cooking</li> </ul> </li> <li>• explain techniques used to plan, pack, carry and prepare foods during outdoor expeditions; e.g.:               <ul style="list-style-type: none"> <li>– nutritional requirements</li> <li>– portability and preservation factors</li> <li>– food preparation techniques</li> <li>– safe use of campfires</li> </ul> </li> <li>• explain techniques that can be used to maintain hygiene during outdoor expeditions; e.g.:               <ul style="list-style-type: none"> <li>– water purification systems</li> <li>– food storage</li> <li>– personal health</li> </ul> </li> </ul>	<p>Engage students in simulation activities, role playing and case studies.</p> <p>Review basic first aid and immerse students in emergency response situations.</p> <p>Have students present a “fashion show” or produce a video that demonstrates appropriate equipment and its use.</p> <p>Conduct maintenance clinic.</p> <p>Demonstrate techniques - — then plan and carry out a schoolyard “cookout.”</p> <p>Involve students in menu planning for a hypothetical or proposed field trip.</p> <p>Invite guest speakers from a health department or from national/provincial parks.</p>

**MODULE WLD1030: OUTDOOR EXPERIENCES 1 (SURVIVAL SKILLS) (continued)**

Concept	Specific Learner Expectations	Notes
Wilderness Experience (continued)	<p><i>The student should:</i></p> <ul style="list-style-type: none"> <li>• explain techniques for minimum impact/no-trace land use; e.g.:               <ul style="list-style-type: none"> <li>– guidelines for camping, controlling garbage, using water supply, using open fires and disposing of human waste</li> <li>– protection of flora and fauna.</li> </ul> </li> </ul>	<p>Discuss principles of “ecotourism.” Consider carrying capacity of a local area in relation to minimum environmental impact.</p> <p>Cite examples of careers in tourism (e.g., outdoor guide, fishing guide) that promote minimum impact land use.</p>
Outdoor Travel	<ul style="list-style-type: none"> <li>• plan and conduct safe outdoor expeditions in the natural environment; e.g.:               <ul style="list-style-type: none"> <li>– research information from a variety of sources, including maps, aerial photographs, guidebooks, journals and local experts</li> <li>– interpret route information by selecting reasonable destinations, estimating travel time and anticipating obstacles</li> <li>– apply knowledge and skills while en route, including map reading and compass skills, knowledge of terrain and route selection, and mapping of key landmarks and directions</li> </ul> </li> <li>• use appropriate modes of travel to safely participate in outdoor activities; e.g.:               <ul style="list-style-type: none"> <li>– hiking/backpacking</li> <li>– cross-country skiing</li> <li>– snowshoeing</li> <li>– canoeing</li> </ul> </li> <li>• demonstrate safe and unobtrusive techniques to examine wildlife and habitat; e.g.:               <ul style="list-style-type: none"> <li>– plant/animal identification</li> <li>– wildlife hazards</li> <li>– animal tracks and scat</li> <li>– animal behaviour/social patterns</li> </ul> </li> </ul>	<p>Examine maps, research books and reference materials on particular field sites to be visited.</p> <p>Assess alternative routes with regard to time and preparation required for each.</p> <p>Conduct map reading and basic orienteering exercises in school yard.</p> <p>Plan and implement a sequence of skill development activities with a follow-up excursion.</p> <p>Develop appropriate observation techniques; practise observing students in a library, animals in the zoo, etc.</p> <p>Reference the activities and suggestions provided in <i>The Art of Seeing and Tracking</i>.</p> <p>Make plaster casts of animal tracks.</p> <p>Examine furs, skulls, bones, nests, etc.</p>

**MODULE WLD1030: OUTDOOR EXPERIENCES 1 (SURVIVAL SKILLS) (continued)**

Concept	Specific Learner Expectations	Notes
Outdoor Travel (continued)	<p><i>The student should:</i></p> <ul style="list-style-type: none"> <li>• demonstrate minimum impact/no-trace land use while participating in outdoor expeditions; e.g.:               <ul style="list-style-type: none"> <li>– proper trail use, including the avoidance of trail widening</li> <li>– campsite care, including the use of fires and stoves, tent site selection and firewood selection</li> <li>– waste disposal techniques, including latrines, waste water disposal and garbage.</li> </ul> </li> </ul>	<p>Observe human impacts on a wilderness area.</p> <p>Set up a model campsite in the school yard or a local park; practise minimum impact/no-trace land use.</p>

## MODULE WLD1050: TAKING RESPONSIBILITY (PEOPLE, CULTURE & WILDLIFE)

**Level:** Introductory

**Theme:** Management and Conservation

**Prerequisite:** None

**Module Description:** Students explain the significance of wildlife in society, examine relationships among humans and wildlife, and research potential career opportunities in wildlife-related fields.

**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>describe the social, economic and environmental significance of wildlife</li> </ul>	<p><i>Assessment of student achievement should be based on:</i></p> <ul style="list-style-type: none"> <li>identifying and explaining six or more scenarios where wildlife:               <ul style="list-style-type: none"> <li>is important in social and cultural contexts</li> <li>has economic value</li> <li>is important in environmental contexts.</li> </ul> </li> </ul> <p><i>Assessment Tool</i>  <i>Knowledge/Application Assessment: Significance of Wildlife, WLD1050-1</i>  <i>Sample Interview Project: Significance of Wildlife, WLD1050-2</i></p> <p><i>Standard</i>  <i>Respond to a standard of 1 on the rating scale</i></p>	40
<ul style="list-style-type: none"> <li>explain how personal needs, wants, beliefs and actions may influence wildlife and wildlife habitats</li> </ul>	<ul style="list-style-type: none"> <li>completing a research project that examines influences of personal needs, wants, beliefs and actions on wildlife and its habitat. Research to address impacts of:               <ul style="list-style-type: none"> <li>human population growth</li> <li>technological and/or economic development</li> <li>the extraction and use of natural resources.</li> </ul> </li> </ul> <p><i>Assessment Tool</i>  <i>Research Process: Impacts on Wildlife and Habitat, WLD1050-3</i></p> <p><i>Standard</i>  <i>Complete all components of research to a standard of 1 on the rating scale</i></p>	40

**MODULE WLD1050: TAKING RESPONSIBILITY (PEOPLE, CULTURE & WILDLIFE)**  
(continued)

Module Learner Expectations	Assessment Criteria and Conditions	Suggested Emphasis
<p><i>The student will:</i></p> <ul style="list-style-type: none"> <li>identify careers in wildlife-related fields</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>maintaining a log/journal of reflections and thoughts regarding the impact of personal attitudes, actions and lifestyle on wildlife and the environment, and ideas for environmental citizenship.</li> </ul> <p><i>Assessment Tool</i> <i>Reflection Guide for Environmental Responsibility/Citizenship, WLDREF-ENV</i></p> <p><i>Standard</i> <i>Complete five journal/log entries; address criteria for reflection to a standard of 1 on the rating scale</i></p> <ul style="list-style-type: none"> <li>given current information on career opportunities in wildlife-related fields, completing a research project on one or more career opportunities in the wildlife sector.</li> </ul> <p><i>Assessment Tool</i> <i>Career Search: Introductory Level, WLDCAR-1</i></p> <p><i>Standard</i> <i>Conduct research to a standard of 1 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>20</p> <p>Integrated throughout</p>

Concept	Specific Learner Expectations	Notes
Significance of Wildlife	<p><i>The student should:</i></p> <ul style="list-style-type: none"> <li>explain the social and cultural significance of wildlife; e.g.: <ul style="list-style-type: none"> <li>recreational</li> <li>spiritual and aesthetic</li> <li>medicinal</li> <li>indigenous peoples</li> <li>mythology/astrology</li> <li>literature</li> </ul> </li> </ul>	Subscribe to a magazine for environmental educators (e.g., <i>Borealis</i> , <i>Environmental Views</i> , <i>Update</i> ).

**MODULE WLD1050: TAKING RESPONSIBILITY (PEOPLE, CULTURE & WILDLIFE)**  
(continued)

Concept	Specific Learner Expectations	Notes
Significance of Wildlife (continued)	<p><i>The student should:</i></p> <ul style="list-style-type: none"> <li>• explain the economic significance of wildlife; e.g.:               <ul style="list-style-type: none"> <li>– tourism</li> <li>– subsistence</li> <li>– commercial trade</li> </ul> </li> <li>• explain the environmental significance of wildlife; e.g.:               <ul style="list-style-type: none"> <li>– water, air and soil quality</li> <li>– diversity of life forms</li> <li>– maintenance of ecosystems.</li> </ul> </li> </ul>	<p>Investigate differing views regarding the social, cultural, economic and environmental significance of wildlife based on interviews with community members.</p> <p>Create a pictorial exposé of social and cultural effigy found in periodicals and advertisements.</p>
Personal Impact	<ul style="list-style-type: none"> <li>• explain how individual attitudes, actions and lifestyle may affect wildlife and the environment; e.g.:               <ul style="list-style-type: none"> <li>– recreation and tourism</li> <li>– farming practices</li> <li>– housing and transportation choices</li> <li>– subsistence and commercial trade</li> <li>– energy use</li> </ul> </li> <li>• describe how the growth of human populations may affect wildlife through the destruction of habitat; e.g.:               <ul style="list-style-type: none"> <li>– deforestation</li> <li>– urban sprawl</li> <li>– construction of roads and buildings</li> <li>– extraction or harvesting of natural resources</li> <li>– pollution.</li> </ul> </li> </ul>	<p>See <i>Project Wild</i> (Section 5: People, Culture and Wildlife).</p> <p>Role playing:</p> <ul style="list-style-type: none"> <li>• “Area of Land for Sale” (Land Conservation Education Program, Factsheet #19).</li> <li>• “To Dam or Not to Dam” (<i>Project Wild</i>, p. 312).</li> </ul>
Career Opportunities	<ul style="list-style-type: none"> <li>• outline career areas and the range of occupational opportunities within wildlife-related fields; e.g.:               <ul style="list-style-type: none"> <li>– recreation</li> <li>– tourism</li> <li>– resource harvesting</li> <li>– literature, art and/or film</li> <li>– conservation and management</li> <li>– research</li> <li>– education</li> </ul> </li> </ul>	<p>Gather information from:</p> <ul style="list-style-type: none"> <li>• post-secondary calendars</li> <li>• interviews with people employed in the field</li> <li>• job search manuals</li> <li>• employment offices</li> <li>• newspapers and government publications</li> </ul>

**MODULE WLD1050: TAKING RESPONSIBILITY (PEOPLE, CULTURE & WILDLIFE)**  
(continued)

Concept	Specific Learner Expectations	Notes
Career Opportunities (continued)	<i>The student should:</i> <ul style="list-style-type: none"><li>• research one or more career opportunities in a wildlife-related field; e.g.:<ul style="list-style-type: none"><li>– job description/working conditions</li><li>– entry requirements/competencies</li><li>– educational/training programs.</li></ul></li></ul>	Contact “Career Hotline” (telephone 1-800-661-3753).

**MODULE WLD1070: HUNTING & GAME MANAGEMENT 1  
(ETHICS/GAME IDENTIFICATION)**

**Level:** Introductory

**Theme:** Management and Conservation

**Prerequisite:** None

**Module Description:** Students explain the role of regulated hunting in game management, identify Alberta’s game animals, and demonstrate knowledge and skills that ensure safe and comfortable experiences in the outdoors.

**Module Parameters:** Access to an outdoor wilderness environment and relevant government agencies.

Teacher must be a registered Alberta Conservation and Hunter Education Program Instructor (Alberta Environmental Protection, Natural Resources Service).

Instruction on basic first-aid and survival techniques to be provided by person(s) having current certification in Standard Level First Aid.

**Note:** Alberta Conservation and Hunter Education Program Student Certificates may be awarded to students who successfully complete Hunting & Game Management 1 and 2, and receive at least 80% on the Alberta Conservation and Hunter Education Examination.

See Section C (Planning for Instruction) and Section H (Linkages/Transitions) of this Guide for further information on instructor training and certification.

**Supporting Module:** CTR1210 Personal Safety (Management) [Career Transitions Strand]

Because of the practical nature of this module, students must have a general knowledge of basic first-aid and survival techniques relevant to wilderness environments. See Planning for Instruction in Section C for further information on student safety.

**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>explain game management practices and the role of regulated hunting in game management</li> </ul>	<p><i>Assessment of student achievement should be based on:</i></p> <ul style="list-style-type: none"> <li>identifying and explaining basic principles of wildlife management and the role of regulated hunting in game management.</li> </ul> <p><i>Assessment Tool</i>  <i>Knowledge/Application Assessment: Principles of Wildlife Management, WLD1070–1</i></p> <p><i>Standard</i>  <i>Respond to a standard of 1 on the rating scale</i></p>	<p>25</p>

**MODULE WLD1070: HUNTING & GAME MANAGEMENT 1 (ETHICS/GAME IDENTIFICATION)** (continued)

Module Learner Expectations	Assessment Criteria and Conditions	Suggested Emphasis
<p><i>The student will:</i></p> <ul style="list-style-type: none"> <li>• identify the distinguishing characteristics of Alberta’s ungulates, carnivores, upland birds and waterfowls</li> <li>• describe basic equipment and techniques required for safe and comfortable experiences in the outdoors</li> </ul>	<p><i>Assessment of student achievement should be based on:</i></p> <ul style="list-style-type: none"> <li>• given a current issue regarding hunting ethics:               <ul style="list-style-type: none"> <li>– negotiating and debating the issue while assuming the role of one or more stakeholder groups</li> <li>– preparing and presenting a position paper that outlines an ethical plan of action.</li> </ul> </li> </ul> <p><i>Assessment Tool</i>  <i>Negotiation and Debate: Introductory Level, WLDNEG–1</i>  <i>Position Paper: Hunting Ethics, WLD1070–2</i></p> <p><i>Standard</i>  <i>Address criteria in negotiation/debate and the position paper to a standard of 1 on the rating scale</i></p> <ul style="list-style-type: none"> <li>• given pictures, videos and/or slides of Alberta’s ungulates, carnivores, upland birds and waterfowl, identifying selected species by:               <ul style="list-style-type: none"> <li>– common name</li> <li>– distinguishing characteristics/habits</li> <li>– habitat/range.</li> </ul> </li> </ul> <p><i>Assessment Tool</i>  <i>Guide to Wildlife Identification, WLD1070–3</i>  <i>Alberta Conservation and Hunter Education Manual, Natural Resources Service (Alberta Fish and Wildlife)</i></p> <p><i>Standard</i>  <i>Identify eight big game ungulates, five big game carnivores, eight upland game birds and 16 waterfowl</i></p> <ul style="list-style-type: none"> <li>• performing practical skills within each of the following areas of outdoor experience:               <ul style="list-style-type: none"> <li>– basic first aid and survival techniques</li> <li>– safe use and care of outdoor equipment.</li> </ul> </li> </ul> <p><i>Assessment Tool</i>  <i>Task Checklist: First Aid and Outdoor Survival, WLD1070–4</i>  <i>Lab Assessment: Outdoor Experiences, WLDLAB</i></p> <p><i>Standard</i>  <i>Achieve a minimum performance rating of:</i> <ul style="list-style-type: none"> <li>– 2 in basic first aid/survival</li> <li>– 1 in the use/care of outdoor equipment</li> <li>– 1 in lab assessment</li> </ul> </p>	<p></p> <p>40</p> <p>35</p>

**MODULE WLD1070: HUNTING & GAME MANAGEMENT 1 (ETHICS/GAME IDENTIFICATION)** (continued)

Module Learner Expectations	Assessment Criteria and Conditions	Suggested Emphasis
<p><i>The student will:</i></p> <ul style="list-style-type: none"> <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 summative theory test for the module in which the student demonstrates knowledge of wildlife management and hunting ethics, the distinguishing characteristics of Alberta’s four classes of game species, basic first-aid/survival techniques, and the safe use/care of outdoor equipment.</li> </ul> <p><i>Assessment Tool</i>  <i>Sample Test Items: Alberta Conservation and Hunter Education Program, Natural Resources Service (Alberta Fish and Wildlife)</i></p> <p><i>Standard</i>  <i>Response indicating 80% mastery</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>Integrated throughout</p>

Concept	Specific Learner Expectations	Notes
<p>Role of Regulated Hunting</p>	<p><i>The student should:</i></p> <ul style="list-style-type: none"> <li>describe the goals of game management and agencies responsible for managing Alberta’s game animals</li> <li>identify components and techniques of a game management system; e.g.: <ul style="list-style-type: none"> <li>biological research</li> <li>inventory</li> <li>habitat manipulation</li> <li>managing wildlife populations</li> </ul> </li> <li>explain the role of regulated hunting in game management and conservation</li> </ul>	<p>See <i>Alberta Conservation and Hunter Education Manual</i>.</p> <p>Contact any district Natural Resources Service (Fish and Wildlife) Office for information regarding instructor workshops.</p> <p>Contact the Alberta Hunter Education Film Library.</p> <p>Subscribe to <i>The Alberta Game Warden</i>.</p>

**MODULE WLD1070: HUNTING & GAME MANAGEMENT 1 (ETHICS/GAME IDENTIFICATION)** (continued)

Concept	Specific Learner Expectations	Notes
<p>Role of Regulated Hunting (continued)</p>	<p><i>The student should:</i></p> <ul style="list-style-type: none"> <li>• describe responsibilities of the hunter in reporting conditions that may endanger wildlife; e.g.:               <ul style="list-style-type: none"> <li>– pollution and its effect on wildlife</li> <li>– habitat loss and abuse</li> <li>– threats to rare and endangered species</li> <li>– neglect for wildlife laws</li> </ul> </li> <li>• identify ethical considerations that provide a social standard for conduct when hunting; e.g.:               <ul style="list-style-type: none"> <li>– hunter-landowner relations</li> <li>– regard for other land users</li> <li>– respect for self</li> <li>– respect for wildlife</li> <li>– respect for laws and enforcement officers.</li> </ul> </li> </ul>	<p>Philosophical discussion:</p> <ul style="list-style-type: none"> <li>• how much wildlife of any species is enough?</li> <li>• how do we deal with preferred species?</li> <li>• how do we deal with problem species?</li> <li>• what uses of wildlife are appropriate?</li> </ul> <p>Cite examples of relevant careers:</p> <ul style="list-style-type: none"> <li>• research/conservation</li> <li>• law enforcement</li> <li>• tourism and guiding.</li> </ul>
<p>Identification of Game Animals</p>	<ul style="list-style-type: none"> <li>• identify and describe the distinguishing characteristics and habits of Alberta’s big game ungulates; e.g.:               <ul style="list-style-type: none"> <li>– horned animals</li> <li>– antlered animals</li> </ul> </li> <li>• identify and describe the distinguishing characteristics and habits of Alberta’s big game carnivores; e.g.:               <ul style="list-style-type: none"> <li>– cougar, wolf and coyote</li> <li>– grizzly bear and black bear</li> </ul> </li> <li>• identify and describe the distinguishing characteristics and habits of Alberta’s upland game birds; e.g.:               <ul style="list-style-type: none"> <li>– ptarmigan</li> <li>– grouse</li> <li>– pheasant and hungarian partridge</li> </ul> </li> <li>• identify and describe the distinguishing characteristics and habits of Alberta’s waterfowl; e.g.:               <ul style="list-style-type: none"> <li>– puddle and diving ducks</li> <li>– geese</li> </ul> </li> </ul>	<p>Individual/small group research.</p> <p>Displays and presentations.</p> <p>Pictures and slides.</p>

**MODULE WLD1070: HUNTING & GAME MANAGEMENT 1 (ETHICS/GAME IDENTIFICATION)** (continued)

Concept	Specific Learner Expectations	Notes
<p>Identification of Game Animals (continued)</p>	<p><i>The student should:</i></p> <ul style="list-style-type: none"> <li>• distinguish between similar game and non-game species of ungulates, carnivores, upland birds and waterfowl; e.g.:               <ul style="list-style-type: none"> <li>– woodland caribou</li> <li>– lynx</li> <li>– wild turkey</li> <li>– whooping crane and swan.</li> </ul> </li> </ul>	
<p>Equipment, Techniques and Safe Practices</p>	<ul style="list-style-type: none"> <li>• describe the characteristics, use and care of basic equipment and personal gear used when hunting in the outdoors; e.g.:               <ul style="list-style-type: none"> <li>– clothing</li> <li>– bedding and tents</li> <li>– knives and axes</li> <li>– compass and maps</li> <li>– backpacks</li> </ul> </li> <li>• identify items to be included in first-aid and survival kits</li> <li>• identify factors that affect ability to cope with emergency conditions in the outdoors; e.g.:               <ul style="list-style-type: none"> <li>– pain and cold</li> <li>– thirst and hunger</li> <li>– fatigue, boredom and loneliness</li> <li>– fear</li> </ul> </li> <li>• describe procedures for examining someone who is hurt or suddenly becomes ill in the outdoors</li> <li>• demonstrate emergency first-aid techniques; e.g.:               <ul style="list-style-type: none"> <li>– artificial respiration</li> <li>– control of bleeding from cuts</li> <li>– care for victims of shock or concussion</li> <li>– care of sprains, fractures and dislocations</li> <li>– treatment of burns, blisters and frostbite</li> <li>– care of animal and insect bites</li> </ul> </li> </ul>	<p>Emphasis on field experiences.</p> <p>Potential linkages exist with the “First Aid in the Wilderness” certificate course (see Section H: Linkages/Transitions).</p>

**MODULE WLD1070: HUNTING & GAME MANAGEMENT 1 (ETHICS/GAME IDENTIFICATION)** (continued)

Concept	Specific Learner Expectations	Notes
Equipment, Techniques and Safe Practices (continued)	<p><i>The student should:</i></p> <ul style="list-style-type: none"> <li>• demonstrate techniques for detecting, treating and preventing hypothermia</li> <li>• demonstrate basic survival techniques for the outdoors; e.g.:               <ul style="list-style-type: none"> <li>– fire building</li> <li>– shelter building</li> <li>– sending rescue signals</li> <li>– securing water and food.</li> </ul> </li> </ul>	

## MODULE WLD1080: ANGLING & FISH MANAGEMENT

**Level:** Introductory

**Theme:** Management and Conservation

**Prerequisite:** None

**Module Description:** Students explain the role of recreational fishing in the management and conservation of fish resources, and demonstrate knowledge of the responsible practices required for fishing or related outdoor activities.

**Module Parameters:** Access to an outdoor aquatic environment and relevant government agencies.

Teacher must be a registered Alberta Fishing Education Program Instructor (Alberta Environmental Protection, Natural Resources Service).

Instruction on basic first-aid and survival techniques to be provided by person(s) having current certification in Standard Level First Aid.

**Note:** Alberta Fishing Education Program Student Certificates may be awarded to students who successfully complete this module and receive at least 80% on the Alberta Fishing Education Examination.

See Section C (Planning for Instruction) and Section H (Linkages/ Transitions) of this Guide for further information on instructor training and certification.

**Supporting Module:** CTR1210 Personal Safety (Management) [Career Transitions Strand]

Because of the practical nature of this module, students must have a general knowledge of basic first-aid and survival techniques relevant to aquatic environments. See Planning for Instruction in Section C for further information on student safety.

### 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>explain the role of recreational fishing in the management of fish resources, and social and legal standards of conduct for game fishing</li></ul>	<p><i>Assessment of student achievement should be based on:</i></p> <ul style="list-style-type: none"><li>identifying and explaining:<ul style="list-style-type: none"><li>principles of fisheries management and the role of recreational fishing in managing fish resources</li><li>ethical and legal responsibilities of individuals involved in game fishing.</li></ul></li></ul> <p><i>Assessment Tool</i> <i>Knowledge/Application Assessment: Principles of Fisheries Management, WLD1080-1</i></p> <p><i>Standard</i> <i>Respond to a standard of 1 on the rating scale</i></p>	30

**MODULE WLD1080: ANGLING & FISH MANAGEMENT** (continued)

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 describe the distinguishing characteristics and habitats of Alberta’s game fish</li> <li>• describe basic fishing equipment and safe practices for fishing</li> </ul>	<p><i>Assessment of student achievement should be based on:</i></p> <ul style="list-style-type: none"> <li>• given a current issue regarding fishing ethics:               <ul style="list-style-type: none"> <li>– negotiating and debating the issue while assuming the role of one or more stakeholder groups</li> <li>– preparing and presenting a position paper that outlines an ethical plan of action.</li> </ul> </li> </ul> <p><i>Assessment Tool</i>  <i>Negotiation and Debate: Introductory Level, WLDNEG-1</i>  <i>Position Paper: Fishing Ethics, WLD1080-2</i></p> <p><i>Standard</i>  <i>Address criteria in negotiation/debate and the position paper to a standard of 1 on the rating scale</i></p> <ul style="list-style-type: none"> <li>• given pictures, videos and/or slides of major game fish species in Alberta, identifying selected species by:               <ul style="list-style-type: none"> <li>– common name</li> <li>– physical characteristics</li> <li>– habitat and range</li> <li>– spawning and feeding habits.</li> </ul> </li> </ul> <p><i>Assessment Tool</i>  <i>Guide to Fish Identification, WLD1080-3</i>  <i>Alberta Fishing Education Manual, Natural Resources Service (Alberta Fish and Wildlife)</i></p> <p><i>Standard</i>  <i>Identify 10 species of salmonids, three species of percids and four other species of game fish</i></p> <ul style="list-style-type: none"> <li>• demonstrating practical techniques for the safe handling and use of fishing equipment.</li> </ul> <p><i>Assessment Tool</i>  <i>Task Checklist: Fishing Equipment and Techniques, WLD1080-4</i>  <i>Lab Assessment: Outdoor Experiences, WLDLAB</i></p> <p><i>Standard</i>  <i>Achieve a performance rating of 2 in each area on the task checklist and a performance rating of 1 in lab assessment</i></p>	<p>40</p> <p>30</p>

**MODULE WLD1080: ANGLING & FISH MANAGEMENT** (continued)

Module Learner Expectations	Assessment Criteria and Conditions	Suggested Emphasis
<p><i>The student will:</i></p> <ul style="list-style-type: none"> <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 summative theory test for the module in which the student demonstrates knowledge of fisheries management, game fish identification, fishing equipment/techniques, fish handling/cooking and safety considerations.</li> </ul> <p><i>Assessment Tool</i>  <i>Sample Test Items: Alberta Fishing Education Program, Natural Resources Service (Alberta Fish and Wildlife)</i></p> <p><i>Standard</i>  <i>Response indicating 80% mastery</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 Tools</i>  <i>Basic Competencies Reference Guide and any assessment tools noted above</i></p>	<p>Integrated throughout</p>

Concept	Specific Learner Expectations	Notes
<p>Role of Recreational Fishing</p>	<p><i>The student should:</i></p> <ul style="list-style-type: none"> <li>describe the goals of fisheries management and agencies responsible for managing Alberta’s fish populations</li> <li>distinguish among recreational, commercial and game fishing</li> <li>describe components and techniques of a fisheries management program; e.g.:               <ul style="list-style-type: none"> <li>fishing regulations</li> <li>fish stocking and monitoring</li> <li>aquatic habitat development and improvement</li> <li>law enforcement</li> <li>public information programs</li> </ul> </li> </ul>	<p>See <i>Alberta Fishing Education Program Manual</i>.</p> <p>Contact any district Natural Resources Service (Fish and Wildlife) Office for information regarding instructor workshops.</p> <p>Subscribe to <i>The Alberta Game Warden</i>.</p> <p>Contact Alberta Environmental Protection for student copies of <i>Alberta Guide to Sportfishing</i>.</p>

**MODULE WLD1080: ANGLING & FISH MANAGEMENT (continued)**

Concept	Specific Learner Expectations	Notes
<p>Role of Recreational Fishing (continued)</p>	<p><i>The student should:</i></p> <ul style="list-style-type: none"> <li>• explain the role of recreational fishing in the management and conservation of fish resources</li> <li>• identify ethical considerations that provide a social standard of conduct for game fishing; e.g.:               <ul style="list-style-type: none"> <li>– fisherman–landholder relations</li> <li>– regard for other people</li> <li>– respect for self</li> <li>– respect for wildlife</li> <li>– catch-and-release fishing</li> <li>– respect for laws</li> </ul> </li> <li>• describe fishing regulations and associated legislation that provide a legal standard of conduct for game fishing; e.g.:               <ul style="list-style-type: none"> <li>– laws to protect and conserve fish</li> <li>– laws to govern conduct of fishermen</li> <li>– small vessel legislation</li> <li>– Criminal Code</li> <li>– <i>Litter Act</i>.</li> </ul> </li> </ul>	<p>Investigate monitoring techniques:</p> <ul style="list-style-type: none"> <li>• electrofishing</li> <li>• sampling, tagging and netting.</li> </ul> <p>Panel discussions and student debates.</p> <p>Investigate local fishing seasons and quotas.</p> <p>Discuss catch-and-release fishing as a philosophy as well as a technique. Why are some persons more inclined to keep fish from stocked lakes than when caught in the wild?</p> <p>Invite a resource person from a legal profession to explain the legal process and law enforcement.</p> <p>Cite examples of relevant career opportunities:</p> <ul style="list-style-type: none"> <li>• research/conservation</li> <li>• law enforcement</li> <li>• tourism/guiding.</li> </ul>
<p>Fish Identification</p>	<ul style="list-style-type: none"> <li>• describe common ways of classifying fish; e.g.:           <ul style="list-style-type: none"> <li>– by species relationship:               <ul style="list-style-type: none"> <li>• salmonids</li> <li>• percids</li> <li>• minnows</li> </ul> </li> <li>– by water temperature preference:               <ul style="list-style-type: none"> <li>• cold water</li> <li>• warm water</li> </ul> </li> <li>– by feeding habits:               <ul style="list-style-type: none"> <li>• fish eaters</li> <li>• insect eaters</li> <li>• plant eaters</li> </ul> </li> </ul> </li> </ul>	<p>Individual/small group research.</p> <p>Another way of classifying fish may be by habitat; e.g.:</p> <ul style="list-style-type: none"> <li>• lake dwellers</li> <li>• river dwellers.</li> </ul>

**MODULE WLD1080: ANGLING & FISH MANAGEMENT (continued)**

Concept	Specific Learner Expectations	Notes
Fish Identification (continued)	<p><i>The student should:</i></p> <ul style="list-style-type: none"> <li>• relate the relative abundance of fish species to their position in a food chain</li> <li>• describe water characteristics that influence the distribution and abundance of fish; e.g.:               <ul style="list-style-type: none"> <li>– temperature</li> <li>– dissolved oxygen</li> <li>– water depth</li> <li>– alkalinity (acidity)</li> </ul> </li> <li>• identify and describe the distinguishing characteristics of major game fish species in Alberta; e.g.:               <ul style="list-style-type: none"> <li>– physical features</li> <li>– habitat</li> <li>– spawning habits</li> <li>– feeding habits</li> <li>– angling techniques.</li> </ul> </li> </ul>	<p>Draw food chains.</p> <p>Displays and presentations.</p>
Equipment and Safe Practices	<ul style="list-style-type: none"> <li>• describe the characteristics, use and care of common fishing equipment; e.g.:               <ul style="list-style-type: none"> <li>– fishing rods and reels</li> <li>– lines and knots</li> <li>– hooks and artificial lures</li> <li>– swivels and wire leaders</li> <li>– sinkers, down riggers and floats</li> <li>– netting</li> </ul> </li> <li>• describe the nature and purpose of different angling techniques</li> <li>• demonstrate techniques for the care of table fish and trophy fish</li> <li>• demonstrate techniques for handling and cooking table fish</li> </ul>	<p>Emphasis on field experiences.</p> <p>Spin and bait casting, trolling, fly fishing, ice fishing, bow fishing.</p> <p>Cleaning, dressing, scaling, filleting, skinning, freezing and cooking.</p>

**MODULE WLD1080: ANGLING & FISH MANAGEMENT** (continued)

Concept	Specific Learner Expectations	Notes
Equipment and Safe Practices (continued)	<p><i>The student should:</i></p> <ul style="list-style-type: none"><li>• explain safe practices for fishing and engaging in related outdoor activities; e.g.:<ul style="list-style-type: none"><li>– boat safety</li><li>– ice safety</li><li>– hook removal</li><li>– bear safety</li></ul></li><li>• describe emergency first-aid and survival techniques, and items to be included in first-aid and survival kits.</li></ul>	Potential linkages exist with the “First Aid in the Wilderness” certificate course (see Section H: Linkages/Transitions).