

## Cross-Reference Guide: Grade 5 Alberta Science with Project WILD and Below Zero

J. van Kessel, M.Sc., B.Ed.

<b>Topic E: Wetland Ecosystems</b>		<b>Project Wild</b>	<b>Below Zero</b>
<b>General Learner Expectations</b>	<b>Specific Learner Expectations</b>		
<b>5–10 Describe the living and nonliving components of a wetland ecosystem and the interactions within and among them.</b>	1. Recognize and describe one or more examples of wetland ecosystems found in the local area; e.g., pond, slough, marsh, bog, fen.	18 Wildlife is Everywhere! (aq) 20 Microtrek Scavenger Hunt (aq) 38 Habitat Rummy (m, aq) 55 Aqua Words (m) 57 Water Wings (m) 82 Wild Words...A Journal-Making Activity (m) 98 Environmental Barometer (aq) 105 Riparian Retreat (e1,3) 109 Water Canaries 125 Graphananimal (aq) 127 Urban Nature Search (aq) 133 Forest in a Jar (m7) 135 Pond Succession (m) 137 The Thicket Game (m, aq) 161 Visual Vocabulary (aq) 168 Wetland Metaphors (e1) 172 Marsh Munchers (e2,3) 177 The Edge of Home (6) 280 Learning to Look, Looking to See (m) 312 To Dam or Not to Dam (m, e2,3) 348 Improving Wildlife Habitat in the Community 354 Dragonfly Pond (e1) 376 Watershed (m10, e9) 381 Alice in Waterland (m)	5 Snow Tours 41 Snow Place Like Home (m) 89 Ready, Set, Snow! (e2) 93 A Furry Plant? 97 Snow Lovers or Haters? (m4)
	2. Understand that a wetland ecosystem involves interactions between living and nonliving things, both in and around the water.	4 Animal Charades (e1, aq) 22 Stormy Weather (aq) 28 Habitat Lap Sit (aq) 32 Habittracks (m, aq)	5 Snow Tours (m) <b>55 Fishy Deep Freeze</b> 83 Winter-Wise Insects (m) 89 Ready, Set, Snow! (e2)

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		38 Habitat Rummy (aq) 46 What's for Dinner? (e3 & aq) 55 Aqua Words (m) 57 Water Wings (m) 64 Are You Me? (e1,2) 82 Wild Words...A Journal-Making Activity (m) 98 Environmental Barometer (m, aq) 105 Riparian Retreat (e1,3) 109 Water Canaries 125 Graphananimal (m, aq) 127 Urban Nature Search (aq) 131 Good Buddies (m) 135 Pond Succession 165 Micro Odyssey (m) 168 Wetland Metaphors 172 Marsh Munchers (m) 180 Blue Ribbon Niche 207 Oh Deer! (aq) 280 Learning to Look, Looking to See (e2,3, aq) 283 The Glass Menagerie (m) 354 Dragonfly Pond (m)	
	3. Identify some plants and animals found at a wetland site, both in and around the water; and describe the life cycles of these plants and animals.	6 Bearly Born (aq1) 13 Interview a Spider (aq) 15 Grasshopper Gravity (aq) 18 Wildlife is Everywhere! (m, aq) 20 Microtrek Scavenger Hunt (aq) 53 Tracks! (m, aq) 62 Water Plant Art (e1,4)	5 Snow Tours (m) 15 Bird Banquets (m, e) 27 Twiggy Tales (m) 41 Snow Place Like Home (m) 55 Fishy Deep Freeze (m) 77 Moose Morsels (m, e1) 83 Winter-Wise Insects

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		64 Are You Me? (e3) 82 Wild Words...A Journal-Making Activity (m, e2) 85 Animal Poetry (aq) 98 Environmental Barometer (m, aq) 105 Riparian Retreat (m, e1,3) 109 Water Canaries 115 Mythical Mystical Monsters (m) 118 Kelp Help (e1) 122 What Bear Goes Where? (aq) 125 Graphananimal (m, aq) 127 Urban Nature Search (m, aq) 133 Forest in a Jar (m7) 135 Pond Succession (m) 137 The Thicket Game (m, aq2) 161 Visual Vocabulary (m, aq) 165 Micro Odyssey (m) 172 Marsh Munchers (m) 177 The Edge of Home (m6) 180 Blue Ribbon Niche (11) 195 Fishy Who's Who (m) 197 Fashion a Fish (e2) 237 Migration Headache (e1) 242 Aquatic Roots 252 Lobster in Your Lunch Box (aq1) 293 Migration Barriers (m, aq)	89 Ready, Set, Snow! (var) <b>93 A Furry Plant? (e3)</b> 97 Snow Lovers or Haters? (m4) 129 What Gall! (e2)
	4. Identify and describe adaptations that make certain plants and animals suited for life in a wetland.	4 Animal Charades (aq) 13 Interview a Spider (aq) 55 Aqua Words (m) 62 Water Plant Art (e4,5)	15 Bird Banquets (m, e1) 27 Twiggy Tales (m) 33 Winter Survival (m) 41 Snow Place Like Home (var1)

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		82 Wild Words...A Journal-Making Activity (m, e2) 85 Animal Poetry (m, aq) 90 Let's Go Fly a Kite (m, aq) 115 Mythical Mystical Monsters 118 Kelp Help (e1) 122 What Bear Goes Where? (aq) 137 The Thicket Game (aq1) 139 Adaptation Artistry (m, aq) 142 Seeing Is Believing or The Eyes Have It (aq) 147 Quick Frozen Critters (m, aq) 153 Muskox Manoeuvres (m, aq) 161 Visual Vocabulary (m, aq) 197 Fashion a Fish (e2)	55 Fishy Deep Freeze (m) 83 Winter-Wise Insects (e1) 89 Ready, Set, Snow! (var) 93 A Furry Plant? (aq) 97 Snow Lovers or Haters? (m) 99 Snow Floats (m) 103 Winter Wonders (m, e2) 107 Winter Buddies (e) 109 Frost-Free Feathered Friends (m) 117 Adaptarmigan 121 Wise Wintering Plants (m) 129 What Gall! 151 An Ice Place To Be! (m) 159 Dinner Time (m)
	5. Understand and appreciate that all animals and plants, not just the large ones, have an important role in a wetland community.	13 Interview a Spider (aq) 20 Microtrek Scavenger Hunt (aq) 22 Stormy Weather (var2 & aq) 46 What's for Dinner? (aq) 62 Water Plant Art (m) 105 Riparian Retreat (e1,3) 109 Water Canaries (m) 118 Kelp Help (e1) 131 Good Buddies (m) 139 Adaptation Artistry (m, aq6) <b>165 Micro Odyssey</b> 172 Marsh Munchers (e1) 255 First Impressions (m, aq) 299 Deadly Links (m, aq)	83 Winter-Wise Insects 129 What Gall! 159 Dinner Time (m)

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	<p>6. Identify the roles of different organisms in the food web of a pond:</p> <ul style="list-style-type: none"> <li>• producers—green plants that make their own food, using sunlight</li> <li>• consumers—animals that eat living plants and/or animals</li> <li>• decomposers—organisms, such as molds, fungi, insects and worms, that reuse and recycle materials that were formerly living.</li> </ul>	<p>9 Ants on a Twig (m, aq1)            38 Habitat Rummy (var2 &amp; aq)            46 What's for Dinner? (aq)            62 Water Plant Art (e4, 5)            82 Wild Words...A Journal-Making Activity (e2)            85 Animal Poetry (m, aq)            115 Mythical Mystical Monsters (m)            118 Kelp Help (m, e1)            122 What Bear Goes Where? (aq)            131 Good Buddies (m)            137 The Thicket Game (m, aq2)            161 Visual Vocabulary (m, aq)  <b>165 Micro Odyssey</b>  <b>172 Marsh Munchers (e1)</b>            180 Blue Ribbon Niche (e1)            276 Water We Eating? (m)            310 Aquatic Times (m)</p>	<p>55 Fishy Deep Freeze (m, e)            65 It's A Gasp (m)            77 Moose Morsels (m, e3)            107 Winter Buddies (m,e)</p>
	<p>7. Draw diagrams of food chains and food webs, and interpret such diagrams.</p>	<p>38 Habitat Rummy (var2 &amp; aq)            46 What's for Dinner? (aq)            109 Water Canaries (m)  <b>165 Micro Odyssey</b>  <b>172 Marsh Munchers (e1)</b>            180 Blue Ribbon Niche (m)            299 Deadly Links (m, aq3)            368 Plastic Jellyfish (m, eval1)</p>	<p>55 Fishy Deep Freeze (m, e)            107 Winter Buddies (m)</p>
	<p>8. Recognize that some aquatic animals use oxygen from air and others from water, and identify examples and adaptations of each.</p>	<p>9 Ants on a Twig (m, aq1)            197 Fashion a Fish (m, e2)</p>	<p>55 Fishy Deep Freeze            65 It's A Gasp</p>

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	9. Identify human actions that can threaten the abundance or survival of living things in wetland ecosystems; e.g., adding pollutants, changing the flow of water, trapping or hunting pond wildlife.	48 Litter We Know (aq) 57 Water Wings (e2) 109 Water Canaries (e4,7) 180 Blue Ribbon Niche 191 Where Does Water Go After School? (m) 211 The Hunter (m) 216 Here Today, Gone Tomorrow (aq) 220 Who Lives Here? (m) 222 Planting Animals (m) 230 No Water Off a Duck's Back (aq) 237 Migration Headache (e2,5) 242 Aquatic Roots 257 Changing Attitudes (e2) 262 Watered Down History 276 Water We Eating? (m, e2) 283 The Glass Menagerie (e2) 286 Too Close for Comfort (aq) 289 Shrinking Habitat (aq) 293 Migration Barriers (e1, aq) 295 To Compromise or Not to Compromise (e1) 299 Deadly Links (e, aq) 303 Keeping Score 310 Aquatic Times (m) 312 To Dam or Not to Dam (e2,3) 319 Deadly Skies (e1) 322 Deadly Waters (e2) 328 Ethi-Thinking (aq) 330 Playing Lightly on the Earth (m)	65 It's A Gasp (e) 137 Snowmobile Savvy (var2, aq) 141 Shocking Snow! (e) 145 The Acid Test 147 Kindness That Kills! (m) 151 An Ice Place To Be! (m) 155 Mighty Migrators (e1) 159 Dinner Time

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		332 Water's Going On?! (e1) 335 What Did Your Lunch Cost Wildlife? (aq) 337 Flip the Switch for Wildlife! (aq) 340 Ethi-Reasoning (m, aq) 351 Enviro-Ethics 354 Dragonfly Pond 368 Plastic Jellyfish 371 Something's Fishy Here! 381 Alice in Waterland	
	10. Identify individual and group actions that can be taken to preserve and enhance wetland habitats.	48 Litter We Know (aq) 57 Water Wings (e2) 105 Riparian Retreat (e2) 177 The Edge of Home (e3) 180 Blue Ribbon Niche (e2) 204 Wildwork (m) 216 Here Today, Gone Tomorrow (aq) 222 Planting Animals (m) 237 Migration Headache (e2,4,7) 242 Aquatic Roots (e2) 257 Changing Attitudes (e2) 262 Watered Down History (e1) 268 Cartoons and Bumper Stickers (e1, aq) 272 The Power of a Song (e1, aq) 286 Too Close for Comfort (m, aq) 289 Shrinking Habitat (m8, aq) 303 Keeping Score (aq) 306 Planning for People and Wildlife (m, aq)	

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		310 Aquatic Times (m) 312 To Dam or Not to Dam (m, e2,3) 322 Deadly Waters (e1) 328 Ethi-Thinking (m) 345 Can Do! (aq) 348 Improving Wildlife Habitat in the Community (e, aq) 354 Dragonfly Pond 351 Enviro-Ethics (aq) 360 Living Research: Aquatic Heros and Heroines (e1) 368 Plastic Jellyfish (e2) 371 Something's Fishy Here! (e) 376 Watershed (m10, e4) 381 Alice in Waterland (m10, e2,5,6)	
	11. Recognize that changes in part of an environment have effects on the whole environment.	22 Stormy Weather (m, aq) 48 Litter We Know (aq) 109 Water Canaries (e) 133 Forest in a Jar (m7) <b>135 Pond Succession</b> 150 Classroom Carrying Capacity (m, aq) 177 The Edge of Home (e3) 180 Blue Ribbon Niche 216 Here Today, Gone Tomorrow (aq) 220 Who Lives Here? (m) 222 Planting Animals (m) 224 Smokey the Bear Said What? (aq) 230 No Water Off a Duck's Back (m)	55 Fishy Deep Freeze 65 It's A Gasp (m) 137 Snowmobile Savvy (var2, aq) 141 Shocking Snow! (m, e) 145 The Acid Test (m)



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		237 Migration Headache 242 Aquatic Roots 257 Changing Attitudes (e1) 262 Watered Down History 283 The Glass Menagerie (m) 306 Planning for People and Wildlife 312 To Dam or Not to Dam 319 Deadly Skies (m) 345 Can Do! (m, aq) 348 Improving Wildlife Habitat in the Community (m, aq) 354 Dragonfly Pond 371 Something's Fishy Here! (m) 381 Alice in Waterland	

**Notes** (all tables)

**bold:** very strong correlation of activity with outcome/indicator  
 m: minor modification required for SLE  
 number; e.g., 2: relevant step in activity procedure  
 e: include activity extension  
 aq: aquatic extension  
 eval: evaluation section of activity  
 var: variation section of activity