

Topics Matrix

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	Chapter 1: Aquatic Habitats						Chapter 2: Minnesota Fish						Chapter 3: Water Stewardship						Chapter 4: Fish Management					Chapter 5: Fishing Equipment & Skills						Chapter 6: Safety & the Fishing Trip												
	1:1 Design a Habitat	1:2 Food Chain Tag	1:3 Run For Your Life Cycle	1:4 Water Habitat Site Study	1:5 Habitat Hideout	1:6 From Frozen to Fascinating	2:1 Fish Sense	2:2 Fins: Form & Function	2:3 Fish Families	2:4 Using a Key for Fish ID	2:5 Diving Into Diversity	2:6 Adapted for Habitat	2:7 Fish Tales	2:8 Fish in Winter	2:9 Fish Bowl	3:1 The Incredible Journey	3:2 Function of Aquatic Plants	3:3 Wonderful Watersheds	3:4 Would You Drink This Water?	3:5 The Lake Game	3:6 Macroinvertebrate Mayhem	3:7 Mussel Mania	4:1 Fishing Regulations & Sportsmanship	4:2 Fish Surveys	4:3 Aquatic Plant Power	4:4 Town Meeting	4:5 Fisheries Management & You	5:1 Freshwater Rods & Reels	5:2 Casting a Closed-face Rod & Reel Combo	5:3 Pop Can Casting	5:4 Tackling Your Tackle Box	5:5 Flashy Fish Catchers	5:6 Fool Fish With Flies	5:7 Making Ice Fishing Jiggle Sticks	6:1 Safety & Fishing at the Water's Edge	6:2 Ice Fishing & Winter Safety	6:3 Planning a Fishing Trip	6:4 Piscatorial Palate	6:5 Eating Fish			
Abiotic Factors *	X	X	X	X	X	X							X		X	X	X	X	X		X						X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Adaptations				X		X	X	O	X	X	X	O		X	**	X																	X	X								
Angling		X	X										X	X						X																		O	O	O	X	X
Angling Equipment																											X	O	O	O	O	O	O	O	O	O	O	X	X		X	
Angling Skills					X						X												X																		X	
Aquatic Ecosystem	O	O	O	O	X	O							X			O	O				O	O	X	X	X													X	X	X	X	X
Aquatic Macroinvertebrates	X	X		X																	O														O			X	X		X	
Aquatic/Fisheries Management		X	X	X									X			X	X	X	X		X	O	O	O	X	O												X	X	X		X
Aquatic Plants	O	X		O		O										O	X								O													X	X		X	
Bait																																		O	O	O		O	O		O	
Biological Diversity	O	X	X	X		O					X	X	X			X	X		X	O	X		X	X													X	X				X
Biotic Factors *	O	O	O	O	O	O	X	X			X		X			X			X	X	X		X	X	X	X								X	X		X	X		X	X	
Camouflage	X				O		X				O																															
Careers												X	X						X		X	O	O	X	X	O	X	X	X	X	X	X	X		X	X	X	X		X		
Carrying Capacity		O	O										O				X			X	X		X		X												X	X				
Change & Constancy *		X				X					X		O		X	X	X		X	X	X		X	X	X	X															X	
Community				X	X	X							X				X		X	X	X	X	X	X	X	X	X										X	X	X			
Communication *	X						X					X			X		X	X				X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
Conservation		X	X	X									X		O		O	O	O		O	X	X	X	X	O												X	X	X		X
Cultural Perspectives		X	X				X					O	X								X	X			X	X	X	X	X	X	X	X	X	X	X	X	X					X
Cycles (Water, Life, Energy, Nutrient) *		O	O			X							X		O	O		X			O		X	X													X	X				
Ecological Disturbance		X	X										X		X	X	X		X	X	X			X	X	X											X	X				X
Economics													O			X	X	X	X		X		X	X	O	O				X	O								X		X	
Ecosystems	O	X	X	X	X	X					X		X		X		O		X	X	O			X	X	X														X		
Endangered Species																					O	O																				
Energy		O		X									X		X																											

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Environmental Impact	X	X	X	X								X	O		X	X	X	O	O	X	O	X		O	O		X								X	X	X			X
Erosion																X	O		O					O	X															
Feedback *		X	X				X				X		X			X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Food	X	X	X		X								X														X	X	X	X	O	O	X	X	X		O	O		
Food Chains/Webs	X	O																										X	X	X					X	X		X		
Function *	X					O	O	X	X	X	O	X	X		X	X	X	X		X	X	X	X	X	X	O	O	O	O	O	O	O	O	X	X				X	
Habitat Restoration																X	X		X	X				O	X	X														
Habitats*	O	X	X	O	O	X				X	X	X	X		X	X		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
Health & Nutrition																	O		X						X														O	
Identification/ Grouping*/ Classification				O	X	X	X	O	O	O	X					X				X	X	X	X	X			X	X	X	X	X	X	X	X	X		X	X	X	
Individuals *	X	X	X	X	X	X	X	X									X	X			X	X	X	X	X	X	X	X	X	X				X	X	X	X			
Interdependence	X	O	X	X	O	X						X	X		X	X		X	O	O	X	X	X	X	X										X				X	
Invasive Species				X	X													X		O	O														X	X				
Inventory				X	X														X	X	X	X	X	X	X	X	X	X	X	X	X			X	X	X	X			
Land Use				X								X	X		X	X	X	X	X		X		X	X	X									X	X	X				
Metamorphosis																				O																				
Migration *			O																																					
Minnesota Fish							X	X	O	O	O	X		X								O	X			X				O	X	X		X	X		X	X		
Monitoring/Surveys				X	X											X		X					O		X													X	X	
Native Cultures												O																												
Natural Resources	X	X	X	X	X	X							X		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
Patterns *	X				X	X	X	X	X	X	X	X	X		X		X	X			X	X	X	X	X					X	X				X	X				
Photosynthesis		X	X		O								X			O																								
Pollution												X	X		X	X	X	O	O	O	X			X	X	X									X	X			X	
Predator/Prey *	O	O	O				X	X			O		X							X										X	X	X		X	X		X	X		
Properties *						O	O	O	O	O	O	X	X		X	X	X	X	X	X	X		X	X				O	O	O	O	O	O	O			X	X	X	

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Recreation		X	X		X			X		X		X	X						O			O			O	O		O	O	O	O	O	O	O	O	O	O	X	X		
Safety				X		X							X					X					X					O	O	O	O					O	O	O	O	X	O
Seasonal Change						O						X	O		X	X							X	X											X	X	X				
Senses							O		X			X																			X	X	X			X	X		X		
Shelters	X		O		O								X			X					X								X	X						X	X				
Similarities & Differences *		X	X	O	X	X	X	O	O	O	O	X	X			X	X	X		X	X	O	X	X	X	X	X	O	X	X	O	O	O	X	X	X	X	X	X	X	
Stewardship			X									X	X		O	O	O	O	O	O	O	O	O	O	O	O	O									X	X	X		X	
Stories (Myths, Fables, Legends, Folklore)												O			X																				X	X	X				
Structure *	O	X	X	X	X		O	O	X	X	X	O		X		X	X	X		X				X	X	X		O	O	O	O	O	O	O						X	
Sunlight	X			X		O							O		X	O			X	X	X			O												X	X	X			
Sustainability	X	X										X	X			X	X	X	X	X	X	X	X	X	X	X										X	X	X			
Systems	O	O	O	X	X	X							X		X	X	O		X	X	X		X	X																X	
Tackle																												O	O	O	O	O	O	O	O	X	X				
Tools				X	X	X						X	X											O	X		X	O	O	O	X	X	X	X	X	X	X	X	X	X	
Trophic Levels		O	X	X						X																															
Water Quality	X			O		X							X		O	X	O	O	O	O	O		X	X	X	X							X		X	X	X		O		
Watersheds															X	X	O	X	X	X					X	X									X	X	X		X		