Academic Standards Connected to Richardson Nature Center Curriculum

Kindergarten

SUB	Kindergarten standard	Solar Energy	Soils & Rocks	Animal Signs	Apple Cidering	Birds	Camouflage/Animal Adaptations	Forests & Trees	Habitats, Biomes, & Ecosystems	Honey Harvest	How Nature Prepares for Winter	Insects	Mammals	Maple Syruping	Minnesota Animals	Pond	Prairie	Raptors	Reptiles & Amphibians	Seasonal Exploration	Seeds	Snowshoeing/Kicksledding	Water Studies	Wilderness Survival	Winter Ecology
SCI	0.1.1.2.1 Descriptions of observations									•				•											
SCI	0.1.2.1.1 Nature vs. non-nature		•				•		•																
SCI	0.2.1.1.1 Sorting & reasoning											•				•									
SCI	0.3.2.2.2 Sun's heat & light								•		•			•		•	•		•	•	•				
SCI	0.4.1.1.1 Comparing plants & animals					•	•	•		•	•	•	•		•	•	•	•	•	•					
SCI	0.4.1.1.2 External parts of organism					•	•	•	•	•	•	•	•		•	•	•	•	•		•			•	
SCI	0.4.1.1.3 Comparing living & nonliving		•	•		•	•	•	•		•	•	•		•	•	•	•	•	•	•				
SCI	0.4.2.1.1 Components in a system		•					•	•							•	•						•		•
LA	0.6.8.8 Recall information from experiences to answer a question	•	•				•	•	•		•					•	•	•	•				•		•
SS	0.1.1.1.1 Deomstrate civic skills in a classroom																								

1st grade standard

SCI	1.1.1.1.1 Observations for questions		•	•		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•		•		•
SCI	1.1.1.1.2 Description and comparisons		•			•	•	•	•		•	•		•		•	•						•		
SCI	1.1.3.1.1 Parts in natural things					•	•	•		•					•	•	•				•			•	
SCI	1.1.3.2.1 Tools for solving problems				•					•		•		•		•	•					•	•		
SCI	1.3.1.3.1 Classifying rocks (color, shape, size)		•																						
SCI	1.4.1.1.1 Characteristics & behaviors			•		•	•			•	•	•	•		•	•		•	•						
SCI	1.4.2.1.1 Animal needs					•		•	•		•	•	•			•	•		•						
SCI	1.4.2.1.2 Habitat & needs						•	•	•		•					•	•								
SCI	1.4.3.1.1 Animal life cycle					•				•		•				•			•						
SCI	1.4.3.1.1 Life cycles for offspring					•				•		•				•			•						

Academic Standards Connected to Richardson Nature Center Curriculum

2nd & 3rd Grade

SUB	2nd grade standard	Solar Energy	Soils & Rocks	Animal Signs	Apple Cidering	Birds	Camouflage/Animal Adaptations	Forest & Trees	Habitats, Biomes, & Ecosystems	Honey Harvest	How Nature Prepares for Winter	Insects	Mammals	Maple Syruping	Minnesota Animals	Pond	Prairie	Raptors	Reptiles & Amphibians	Seasonal Exploration	Seeds	Snowshoeing/Kicksledding	Water Studies	Wilderness Survival	Winter Ecology
SCI	2.1.1.2.1 Questions to observations					•	•	•		•		•				•					•				
	2.1.2.2.1 Objects to meet needs																							•	
	2.1.2.2.2 Materials for certain uses									•												•		•	
	2.1.2.2.3 Benefits of engineered items				•					•				•								•			
	2.2.1.2.1 States of water										•														
	2.2.2.1.1 Describing position					•						•				•									
	2.2.2.1.2 Variety of motions			•		•				•		•	•		•	•		•	•						
	2.2.2.2.1 Forces making objects move				•																				
	2.4.1.1.1 Plant characteristics				•			•	•								•				•				
	2.4.2.1.1 Plant needs				•			•		•				•							•				
	2.4.3.1.1 Plant life cycles				•			•						•											

SUB	3rd grade standard	Solar Energy	Soils & Rocks	Animal Signs	Apple Cidering	Birds	Camouflage/Animal Adaptations	Forest & Trees	Habitats, Biomes, & Ecosystems	Honey Harvest	How Nature Prepares for Winter	Insects	Mammals	Maple Syruping	Minnesota Animals	Pond	Prairie	Raptors	Reptiles & Amphibians	Seasonal Exploration	Seeds	Snowshoeing/Kicksledding	Water Studies	Wilderness Survival	Winter Ecology
SCI	3.1.1.1.1 Evidence to support claims		•	•		•	•	•	•	•	•	•	•	•	•	•	•	•	•		•				•
	3.1.1.2.2 Repeated investigations																						•		
	3.1.1.2.3 Observations & inferences		•																		•		•		
	3.1.1.2.4 Explanations from evidence		•	•		•	•	•	•	•	•	•	•		•	•	•		•	•	•		•		•
	3.1.3.2.2 Involvement of various people													•								•			
	3.1.3.4.1 Tools to improve observations		•			•				•		•		•		•	•						•		
	3.4.1.1.1 Structures & functions			•		•	•	•	•	•	•	•	•	•	•	•	•	•	•		•				•
	3.4.1.1.2 Groups of plants & animals			•		•	•	•	•	•	•	•	•	•	•	•	•	•	•		•				•
	3.4.3.2.1 Inherited similarities						•																		
	3.4.3.2.2 Differences & survival					•	•	•		•		•	•		•	•			•		•				

Academic Standards Connected to Richardson Nature Center Curriculum

4th Grade

SUB	4th grade standard	Solar Energy	Soils & Rocks	Animal Signs	Apple Cidering	Birds	Camouflage/Animal Adaptations	Forest & Trees	Habitats, Biomes, & Ecosystems	Honey Harvest	How Nature Prepares for Winter	Insects	Mammals	Maple Syruping	Minnesota Animals	Pond	Prairie	Raptors	Reptiles & Amphibians	Seasonal Exploration	Seeds	Snowshoeing/Kicksledding	Water Studies	Wilderness Survival	Winter Ecology
SCI	4.1.2.1.1 Impact of designed world				•					•				•								•	•	•	
	4.1.2.2.1 ID & design solutions																					•			
	4.1.2.2.2 Ideas & constraints for problem solving	•																						•	•
	4.1.2.2.3 Test & evaluate solutions	•																						•	•
	4.1.3.3.1 Invention leads to new inventions				•									•								•			
	4.2.1.1.1 Tools & units																						•		
	4.2.1.2.2 Changes of state										•														•
	4.2.3.1.1 Transfer of heat energy	•																	•					•	
	4.2.3.1.3 Conductors and insulators	•									•													•	
	4.2.3.2.1 Generating heat energy	•									•													•	
	4.2.3.2.2 Simple electrical circuit	•																							
	4.3.1.3.1 Rocks & their minerals		•																						
	4.3.2.3.1 Water cycle																						•		
	4.3.4.1.1 Water supplies & uses																						•		

Academic Standards Connected to Richardson Nature Center Curriculum

5th Grade

SUB	5th grade standard	Solar Energy	Soils & Rocks	Animal Signs	Apple Cidering	Birds	Camouflage/Animal Adaptations	Forest & Trees	Habitats, Biomes, & Ecosystems	Honey Harvest	How Nature Prepares for Winter	Insects	Mammals	Maple Syruping	Minnesota Animals	Pond	Prairie	Raptors	Reptiles & Amphibians	Seasonal Exploration	Seeds	Snowshoeing/Kicksledding	Water Studies	Wilderness Survival	Winter Ecology
SCI	5.1.1.1.4 Models for phenomena	•																						•	
	5.1.1.2.1 Planning investigations	•									•														•	•
	5.1.1.2.2 Collecting relevant evidence	•									•														•	•
	5.1.1.2.3 Critiquing and experiment	•									•														•	•
	5.1.3.4.1 Tools for data	•									•													•	•	•
	5.2.2.1.1 Simple machines				•																					
	5.3.1.2.1 Rock to soil		•																							
	5.3.4.1.1 Renewable vs. nonrenewable	•																								
	5.3.4.1.3 Impact of decisions	•																						•		
	5.4.1.1.1 Structures & survival					•	•	•	•	•	•	•	•		•	•	•	•	•		•					•
	5.4.2.1.1 Relations in living systems							•	•							•	•									•
	5.4.2.1.2 Changes in natural systems							•	•							•	•									•
	5.4.4.1.1 Humans & natural systems								•														•	•		

Academic Standards Connected to Richardson Nature Center Curriculum

6th, 7th & 8th Grades

SUB	6th grade standard	Solar Energy	Soils & Rocks	Animal Signs	Apple Cidering	Birds	Camouflage/Animal Adaptations	Forest & Trees	Habitats, Biomes, & Ecosystems	Honey Harvest	How Nature Prepares for Winter	Insects	Mammals	Maple Syruping	Minnesota Animals	Pond	Prairie	Raptors	Reptiles & Amphibians	Seasonal Exploration	Seeds	Snowshoeing/Kicksledding	Water Studies	Wilderness Survival	Winter Ecology
SCI	6.1.2.1.1 Impact of engineered systems				•									•								•			
	6.1.2.1.2 Risks in technology	•																				•			
	6.1.2.1.3 Trade-offs in technologies	•																							
	6.1.2.2.1 Applying a design process	•									•														•
	6.1.3.1.1 Subsystem within systems	•																					•		
	6.1.3.4.1 Investigating systems	•									•												•		
	6.2.1.2.2 Conservation of mass										•												•		•
	6.2.1.2.3 Heat & particle motion	•																							
	6.2.3.2.1 Kinetic & potential energy	•																							
	6.2.3.2.2 Changes in energy forms	•																							
	6.2.3.2.3 Transfers of heat energy	•									•													•	•

	7th grade standard																								
SCI	7.1.1.1.2 Analysis of reliability																						•		
	7.1.1.2.3 Scientific conclusions	•									•													•	
	7.4.2.1.2 Roles of organisms					•	•		•			•	•		•	•		•	•						
	7.4.2.2.2 Food webs					•		•	•			•	•		•	•		•	•						
	7.4.4.1.2 Humans changing ecosystems							•	•							•	•						•		

	8th grade standard																								
SCI	8.3.4.1.1 Fuel resources	•																							
	8.3.4.1.2 Land & water uses																						•		