







In-School Program Topic Descriptions




The In-School Program generates enthusiasm for the natural world while expanding students' knowledge in the areas of science and literacy through a three-class series of lessons that involve interactive explorations, scientific instruments and specimens, and a reflective activity


Classroom Teacher Support

The lead teachers' presence in the classroom is very important to the success of the lesson. Thorne educators are trained in classroom management best practices but you know your students best and your guidance and input help make our lessons fantastic!.

Program	Grade Level	Description	State Science Standards Addressed	Common Core Standards	In Action
Birds	Pre-K K 1 st Grade	Students use senses to sort and describe various bird characteristics. Using specimens and observations, students collect, describe, and record information about wings, feet, beaks, nests, and eggs. Comparing and contrasting characteristics, students infer how they help birds survive by trying to catch food with different kinds of beaks.	<ul style="list-style-type: none"> • P. 2.1. • K.2.1. a. • K.3.2. a. • 1.2.1. a. 	<ul style="list-style-type: none"> • Participate in collaborative conversations. • Build on others' talk by responding through multiple exchanges. • Ask and answer questions about key details. • Describe familiar places and things with detail. 	
Decomposers	K 1 st Grade 2 nd Grade	Students participate in the experimental design process to support claims on how worms' characteristics help them survive. An interactive game allows students to describe how worms interact with the living and non-living parts of their habitats.	<ul style="list-style-type: none"> • K.2.1. a. • K.3.2. a. • 1.2.1. a. • 2.2.2. a. 	<ul style="list-style-type: none"> • Participate in collaborative conversations. • Build on others' talk by linking their comments to the remarks of others. • Ask and answer questions to deepen understanding of a topic. 	

Bats	K 1 st Grade 2 nd Grade	Through an interactive game, students describe, compare, and contrast bat characteristics in order to how explain how they help bats survive. Students also explore bats' relationship to the living and non-living parts of their habitat, predicting how changing conditions of their habitat affect them.	<ul style="list-style-type: none"> • K.2.1. a. • K.3.2. a. • 1.2.1. a. • 2.2.2. a. 	<ul style="list-style-type: none"> • Participate in collaborative conversations. • Build on others' talk by linking their comments to the remarks of others. • Ask and answer questions to deepen understanding of a topic. 	
Plants	1 st Grade 2 nd Grade	Students describe, compare, and contrast plant characteristics in order to how explain how they help plants survive. Through an interactive activity, students explore how humans learned from plants through biomimicry.	<ul style="list-style-type: none"> • 1.2.1.a. • 2.2.1. a. • 2.2.2. a. 	<ul style="list-style-type: none"> • Participate in collaborative conversations. • Build on others' talk by linking their comments to the remarks of others. • Ask and answer questions to deepen understanding of a topic. 	
Insects	1 st Grade 2 nd Grade	Students use data sheets to collect observations of live insects in order to describe their characteristics. They also sort insects by their common and unique characteristics. An interactive game allows students to describe how insects pollinate plants.	<ul style="list-style-type: none"> • 1.2.1. a. • 2.2.1. b. • 2.2.2. a. 	<ul style="list-style-type: none"> • Participate in collaborative conversations. • Build on others' talk by linking their comments to the remarks of others. • Ask and answer questions to deepen understanding of a topic. 	
Wetlands	2 nd Grade 3 rd Grade 4 th Grade	Students observe and explain advantages of specific structures of wetland creatures. Through an interactive game, students use evidence to explain the stages of how organisms change over time, and elaborate the needs of an organism at various times in its life cycle. Students explain how organisms adapt to their habitats and their interactions in an ecosystem.	<ul style="list-style-type: none"> • 2.2.2. a. • 3.2.1. a. • 3.2.5. a. • 4.2.1. a. 	<ul style="list-style-type: none"> • Engage in a range of collaborative discussions, building on other's ideas. • Review key ideas expressed and draw conclusions in light of information gained. • Support claims by reason and using evidence. 	

Colorado Ecology	4 th Grade 5 th Grade	Students explain how organisms adapt to their habitats/life zones, describe their interactions in an ecosystem, and analyze the relationship between structures and functions in ecosystems. Through an interactive game, students explain how changes in the environment affect survival.	<ul style="list-style-type: none"> • 4.2.1. a. • SS. 4.2.1. 	<ul style="list-style-type: none"> • Engage in a range of collaborative discussions, building on other's ideas. • Review key ideas expressed and draw conclusions in light of information gained. • Support claims by reason and using evidence. 	
Alternative Energy Choose between: Wind Energy -or- Solar Energy	4 th Grade 5 th Grade	Through an experimental design process, students evaluate how energy can be transferred and stored, ask testable questions about energy, explain the origin, utilization, and concerns associated with natural resource use, and evaluate the distribution of resources and advantages and disadvantages of utilizing those resources for our needs. Based on data, students analyze local relevance of the use of various resources, and evaluate data and information about the advantages and disadvantages of using fossil fuels and alternative energy sources from a local perspective.	<ul style="list-style-type: none"> • 4.1.2. a. • 4.1.4.a. • 4.3.4.a. • 5.3.5. a. 	<ul style="list-style-type: none"> • Engage in a range of collaborative discussions, building on other's ideas. • Review key ideas expressed and draw conclusions in light of information gained. • Support claims by reason and using evidence. 	
Pass the Matter	4 th Grade 5 th Grade	Students explore, describe, and observe various adaptations and processes that facilitate the movement of matter through an ecosystem. Through an interactive game, students experience the flow of energy and matter in an ecosystem and the interactions that affect the balance of an ecosystem.	<ul style="list-style-type: none"> • 4.2.1. a. • 5.1.4. a. • 5.2.1. a. • 5.2.2. a. 	<ul style="list-style-type: none"> • Engage in a range of collaborative discussions, building on other's ideas. • Review key ideas expressed and draw conclusions in light of information gained. • Support claims by reason and using evidence. 	

Climate Change	5 th Grade	Through role-play, students evaluate the distribution of resources and advantages and disadvantages of utilizing those resources for our needs. By taking various perspectives as stakeholders, students analyze local relevance of the use of various resources, and evaluate data and information about the advantages and disadvantages of using fossil fuels and alternative energy sources.	<ul style="list-style-type: none">• 5.3.5. a.	<ul style="list-style-type: none">• Engage in a range of collaborative discussions, building on other's ideas.• Review key ideas expressed and draw conclusions in light of information gained.• Support claims by reason and using evidence.	
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