

SMNHC 5th Grade Program Correlated to NGSS and CCSS		
Program Essentials	Description	Standards
Introduction to ecosystems	Students learn the definition of ecosystems and understand the connections between parts of ecosystems (producers, consumers, decomposers & abiotic factors) TRAILS: All	LS1.C, LS2.A, LS2.B, PS3.D, ESS2.A Energy / Matter; Systems / System Models SL.5.1, SL.5.3, SL.5.6
Field Experience Activities	The field experience includes a 2-mile hike through forest wilderness with inquiry-based activities and/or discussions	SEE SPECIFIC ACTIVITIES BELOW
<ul style="list-style-type: none"> Tree Key 	Students identify local trees using a dichotomous key. TRAILS: Abbey Alley, Dove, Meadow Mud/Paradise	Structure & Function Engaging in Argument from Evidence RI.5.4, SL.5.1, L.5.4
<ul style="list-style-type: none"> Observation Activity 	Students make & describe careful observations of the ecosystem using their senses. TRAILS: All	LS1.C, LS2.A, ESS2.A, ESS2.C Energy / Matter; Systems / System Models; Scale, Proportion, Quantity Engaging in Argument from Evidence W.5.4, SL.5.1, L.5.2
<ul style="list-style-type: none"> Lichen Key 	Students identify different species of lichen & quantify lichen diversity. TRAILS: All	LS1.C, LS2.A, LS2.B, PS3.D, ESS2.A, ESS3.C Energy / Matter; Systems / System Models; Engaging in Argument from Evidence RI.5.4, SL.5.1, L.5.4
<ul style="list-style-type: none"> Geology Rocks 	Students analyze physical characteristics of rocks & discuss the role of rocks within ecosystems TRAILS: Dove, Meadow, Rocky Ridge	ESS2.A, ESS2.C Systems / System Models; Scale, Proportion, Quantity Engaging in Argument from Evidence W.5.8, SL.5.1, L.5.2

<ul style="list-style-type: none"> Decomposition in the Forest 	<p>Students analyze forest habitat decomposition to the health of the forest. TRAILS: Mud Spring/Paradise</p>	<p>LS2.A, LS2.B Cause & Effect; Systems / System Models; Energy & Matter Engaging in Argument from Evidence RI.5.4, W.5.10, SL.5.1, L.5.2, L.5.4</p>
<ul style="list-style-type: none"> Fire on the Mountain 	<p>Students read informational text to understand the 3 components of fire (oxygen, fuel, and heat) and compare & contrast high, low, and no fuel areas within the forest. TRAILS: Leopold, Mud Spring, Rocky Ridge/burned area</p>	<p>LS1.C, LS2.A, LS2.B, PS1.B, ESS3.C Cause & Effect; Scale, Proportion, Quantity; Systems & System Models; Stability & Change Engaging in Argument from Evidence RI.5.4, RI.5.7, W.5.8, SL.5.1, L.5.2, L.5.4</p>
<ul style="list-style-type: none"> Cloud Key 	<p>Students use an identification chart to determine & describe cloud types. TRAILS: Dove, Meadow, BVB</p>	<p>ESS2.A; ESS2.C Engaging in Argument from Evidence RI.5.4, SL.5.1, L.5.4</p>
<ul style="list-style-type: none"> Skull Analysis Activity 	<p>Students compare, contrast & describe the physical characteristics of skulls to understand skull structure, function & adaptation. TRAILS: All</p>	<p>LS2.A Systems / System Models; Structure & Function Engaging in Argument from Evidence W.5.8, SL.5.1, SL.5.3, L.5.2</p>
<ul style="list-style-type: none"> Scavenger Hunt 	<p>Using their observational skills & content knowledge, students search for 20 different items within the ecosystem. TRAILS: All</p>	<p>LS1.C, LS2.A, LS2.B Engaging in Argument from Evidence Systems / System Models RI.5.4, SL.5.1, L.5.4</p>
<ul style="list-style-type: none"> Fun With Forestry 	<p>Students use forestry tools, techniques, and their observational skills to determine forest health. Students then consider what steps could be taken to improve or maintain the forest's health. TRAILS: All</p>	<p>LS1.C, LS2.A, LS2.B, ESS2.A, ESS3.C, ETS1.A Systems / System Models; Cause & Effect; Stability & Change Engaging in Argument from Evidence; Asking questions & defining problems; Planning & carrying out investigations; Analyzing & interpreting data; Using math & computational</p>

		thinking; Constructing explanations & designing solutions RI.5.4, SL.5.1, L.5.4
<ul style="list-style-type: none"> Bear Habitat Survey 	<p>Students compare & contrast different locations to find evidence for excellent, fair or poor bear habitat.</p> <p>TRAILS: Mud/Paradise</p>	<p>LS2.A Cause & Effect; Systems & System Models Engaging in Argument from Evidence RI.5.4, RI.5.5, SL.5.1, L.5.4</p>
<ul style="list-style-type: none"> Forest/Snag Exploration 	<p>Using various scientific tools, students examine different portions of the forest or a snag to explain its connection with parts of the ecosystem.</p> <p>TRAILS: Mud/Paradise</p>	<p>LS2.A, LS2.B Energy & Matter; Systems / System models Engaging in Argument from Evidence RI.5.4, W.5.8, SL.5.1, SL.5.3, L.5.2, L.5.4</p>
<ul style="list-style-type: none"> Fossil Hunt 	<p>Students search for ocean life evidence in the rocks to help them understand how ecosystems change over time.</p> <p>TRAILS: Dove, Fossil Benches</p>	<p>ESS2.A, ESS2.C Cause & Effect; Scale, Proportion, Quantity; Systems & System Models; Stability & Change Engaging in Argument from Evidence; Developing & Using Models W.5.10, SL.5.1, L.5.2</p>
<ul style="list-style-type: none"> Puzzle Path 	<p>Students answer 12 questions that help them reach the definition of an ecosystem.</p> <p>TRAILS: Meadow</p>	<p>LS2.A, LS2.B, ESS2.A Energy & Matter; Systems / System models Engaging in Argument from Evidence RI.5.10, W.5.8, SL.5.1, L.5.2, L.5.4</p>
Field Experience Discussions		
<ul style="list-style-type: none"> Tree Rings 	<p>Students observe & count the tree rings that are obtained using an increment borer to understand the general age of the forest.</p> <p>TRAILS: All</p>	<p>ESS2.A, ESS2.C, ESS3.C Patterns; Cause & Effect; Scale, Proportion, Quantity; Structure & Function; Stability & Change Asking Questions & Defining Problems; Developing & using Models; Analyzing &</p>

		Interpreting Data; Constructing Explanations Engaging in Argument from Evidence SL.5.1, SL.5.3, SL.5.6
<ul style="list-style-type: none"> Consumer Pictures 	<p>Students learn about and discuss the natural history of Sandia Mountain consumers through visual observation.</p> <p>TRAILS: All</p>	<p>LS2.A, LS2.B, ESS2.A, ESS2.C, ESS3.C</p> <p>Cause & Effect; Systems / System models; Stability & Change</p> <p>Asking Questions & Defining Problems; Planning & Carrying Out Investigations; Constructing Explanations; Engaging in Argument from Evidence</p> <p>SL.5.1, SL.5.3, SL.5.6</p>
<ul style="list-style-type: none"> Consumer Evidence 	<p>Through observation and discussion, students learn about the structure and function of consumer evidence specimens (tracks, bones, scat, feathers, etc.).</p> <p>TRAILS: All</p>	<p>LS2.A, LS2.B</p> <p>Cause & Effect; Structure & Function</p> <p>Asking Questions & Defining Problems; Analyzing & Interpreting Data; Constructing Explanations; Engaging in Argument from Evidence</p> <p>SL.5.1, SL.5.3, SL.5.6</p>
<ul style="list-style-type: none"> Scat Chat 	<p>Through observation and discussion, students learn about consumer diet and digestion.</p> <p>TRAILS: All</p>	<p>LS1.C, LS2.A, LS2.B, ESS3.C</p> <p>Patterns; Cause & Effect; Energy & Matter; Stability & Change</p> <p>Asking Questions & Defining Problems; Analyzing & Interpreting Data; Constructing Explanations; Engaging in Argument from Evidence</p> <p>SL.5.1, SL.5.3, SL.5.6</p>
<ul style="list-style-type: none"> Lichen & Moss 	<p>Students learn about, observe, and discuss the differences between lichen & moss.</p> <p>TRAILS: All</p>	<p>LS1.C, LS2.A, LS2.B, ESS2.A, ESS2.C, ESS3.C</p> <p>Patterns; Systems & Systems Models; Structures & Functions; Stability & Change</p>

		Asking Questions & Defining Problems; Engaging in Argument from Evidence SL.5.1, SL.5.3, SL.5.6
Inclement Weather (Indoor) Activities		
<ul style="list-style-type: none"> Who's your consumer? 	Through observational evidence, students determine the structure and function of a given consumer.	LS1.C, LS2.A, LS2.B Systems Models; Structures & Functions; Stability & Change Asking Questions & Defining Problems; Engaging in Argument from Evidence RI.5.10, W.5.4, SL.5.1, SL.5.3, SL.5.6, L.5.2, L.5.4
Created January 2014, By V. Case & S. Henley, SMNHC		