

SMNHC 5 <sup>th</sup> Grade Program Correlated to NMSS 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	NM II- Life Science BM I- Ecosystems 1 BM I- Ecosystems 2 BM I- Ecosystems 3 BM I- Ecosystems 4 BM III- Structure & Function 3  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"> <li>Tree Key</li> </ul>	Students identify local trees using a dichotomous key. TRAILS: Abbey Alley, Dove, Meadow, Mud/Paradise	NM I- Scientific Thinking & Practice BM I- Scientific Thinking 2 NM II- Life Science BM I- Ecosystems 1  RI.5.4, SL.5.1, L.5.4
<ul style="list-style-type: none"> <li>Observation Activity</li> </ul>	Students make & describe careful observations of the ecosystem using their senses. TRAILS: All	NM I- Scientific Thinking & Practice BM I- Scientific Thinking 2 BM II- Scientific Inquiry 1 BM III- Measurement & Data 3 W.5.4, SL.5.1, L.5.2
<ul style="list-style-type: none"> <li>Lichen Key</li> </ul>	Students identify different species of lichen & quantify lichen diversity. TRAILS: All	NM I- Scientific Thinking & Practice BM I- Scientific Method 1 BM I- Scientific Method 3

		NM II- Life Science BM I- Ecosystems 3 BM I- Ecosystems 4  RI.5.4, SL.5.1, L.5.4
<ul style="list-style-type: none"> <li>• Geology Rocks</li> </ul>	Students analyze physical characteristics of rocks & discuss the role of rocks within ecosystems . TRAILS: Dove, Meadow, Rocky Ridge	NM I- Scientific Thinking & Practice BM I- Scientific Thinking 2 NM III- Earth & Space Science BM II- Geology & Weather 3  W.5.8, SL.5.1, L.5.2
<ul style="list-style-type: none"> <li>• Decomposition in the Forest</li> </ul>	Students analyze forest habitat decomposition to the health of the forest. TRAILS: Mud Spring/Paradise	NM I- Scientific Thinking & Practice BM I- Scientific Method 1 NM I- Scientific Thinking & Practice BM III- Measurement & Data 3 NM II- Life Science BM I- Ecosystems 1  RI.5.4, W.5.10, SL.5.1, L.5.2, L.5.4
<ul style="list-style-type: none"> <li>• Fire on the Mountain</li> </ul>	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	NM I- Scientific Thinking & Practice BM I- Scientific Method 1 NM I- Scientific Thinking & Practice BM III- Measurement & Data 3 NM II- Physical Science BM II- Energy 1 BM II- Energy 2  RI.5.4, RI.5.7, W.5.8, SL.5.1, L.5.2, L.5.4
<ul style="list-style-type: none"> <li>• Cloud Key</li> </ul>	Students use an identification chart to determine & describe cloud types.	NM I- Scientific Thinking & Practice BM I- Scientific Method 1

	TRAILS: Dove, Meadow, BVB	NM I- Scientific Thinking & Practice BM III- Measurement & Data 3 NM III- Earth & Space Science BM II- Geology & Weather 1 BM II- Geology & Weather 2  RI.5.4, SL.5.1, L.5.4
<ul style="list-style-type: none"> <li>Skull Analysis Activity</li> </ul>	<p>Students compare, contrast &amp; describe the physical characteristics of skulls to understand skull structure, function &amp; adaptation.</p> <p>TRAILS: All</p>	<p>NM I- Scientific Thinking &amp; Practice BM I- Scientific Method 1 NM I- Scientific Thinking &amp; Practice BM III- Measurement &amp; Data 3 NM II- Life Science BM I- Ecosystems 2 BM III- Structure &amp; Function 3</p> <p>W.5.8, SL.5.1, SL.5.3, L.5.2</p>
<ul style="list-style-type: none"> <li>Scavenger Hunt</li> </ul>	<p>Using their observational skills &amp; content knowledge, students search for 20 different items within the ecosystem.</p> <p>TRAILS: All</p>	<p>NM I- Scientific Thinking &amp; Practice BM I- Scientific Method 1 NM I- Scientific Thinking &amp; Practice BM III- Measurement &amp; Data 3</p> <p>RI.5.4, SL.5.1, L.5.4</p>
<ul style="list-style-type: none"> <li>Fun With Forestry</li> </ul>	<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.</p> <p>TRAILS: All</p>	<p>NM I- Scientific Thinking &amp; Practice BM I- Scientific Thinking 2 NM I- Scientific Thinking &amp; Practice BM III- Measurement &amp; Data 3</p> <p>RI.5.4, SL.5.1, L.5.4</p>
<ul style="list-style-type: none"> <li>Bear Habitat Survey</li> </ul>	<p>Students compare &amp; contrast different locations to find evidence for excellent, fair or poor bear habitat.</p>	<p>NM I- Scientific Thinking &amp; Practice BM I- Scientific Method 1</p>

	TRAILS: Mud/Paradise	BM III- Measurement & Data 2 BM III- Measurement & Data 3  RI.5.4, RI.5.5, SL.5.1, L.5.4
<ul style="list-style-type: none"> <li>Forest/Snag Exploration</li> </ul>	<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>NM I- Scientific Thinking &amp; Practice BM I- Scientific Method 1 BM III- Measurement &amp; Data 3 NM II- Life Science BM I- Ecosystems 1</p> <p>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"> <li>Fossil Hunt</li> </ul>	<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>NM I- Scientific Thinking &amp; Practice BM I- Scientific Method 1 BM III- Measurement &amp; Data 3 NM II- Life Science BM II- Inheritance &amp; Evolution 2</p> <p>W.5.10, SL.5.1, L.5.2</p>
<ul style="list-style-type: none"> <li>Puzzle Path</li> </ul>	<p>Students answer 12 questions that help them reach the definition of an ecosystem.</p> <p>TRAILS: Meadow</p>	<p>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"> <li>Tree Rings</li> </ul>	<p>Students observe &amp; 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>NM I- Scientific Thinking &amp; Practice BM I- Scientific Method 1 BM III- Measurement &amp; Data 3 NM II- Life Science BM I- Ecosystems 1</p> <p>SL.5.1, SL.5.3, SL.5.6</p>

<ul style="list-style-type: none"> <li>Consumer Pictures</li> </ul>	<p>Students learn about and discuss the natural history of Sandia Mountain consumers through visual observation.</p> <p>TRAILS: All</p>	<p>NM I- Scientific Thinking &amp; Practice          BM I- Scientific Method 1          BM III- Measurement &amp; Data 3          NM II- Life Science          BM I- Ecosystems 1          BM III- Structure &amp; Function 3</p> <p>SL.5.1, SL.5.3, SL.5.6</p>
<ul style="list-style-type: none"> <li>Consumer Evidence</li> </ul>	<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>NM I- Scientific Thinking &amp; Practice          BM I- Scientific Method 1          BM III- Measurement &amp; Data 3          NM II- Life Science          BM I- Ecosystems 1          BM III- Structure &amp; Function 2          BM III- Structure &amp; Function 3</p> <p>SL.5.1, SL.5.3, SL.5.6</p>
<ul style="list-style-type: none"> <li>Scat Chat</li> </ul>	<p>Through observation and discussion, students learn about consumer diet and digestion.</p> <p>TRAILS: All</p>	<p>NM I- Scientific Thinking &amp; Practice          BM I- Scientific Method 1          BM III- Measurement &amp; Data 3          NM II- Life Science          BM I- Ecosystems 1          NM II- Life Science          BM I- Ecosystems 2          BM III- Structure &amp; Function 3</p> <p>SL.5.1, SL.5.3, SL.5.6</p>
<ul style="list-style-type: none"> <li>Lichen &amp; Moss</li> </ul>	<p>Students learn about, observe, and discuss the differences between lichen &amp; moss.</p> <p>TRAILS: All</p>	<p>NM I- Scientific Thinking &amp; Practice          BM I- Scientific Method 1          BM III- Measurement &amp; Data 3</p>

		NM II- Life Science BM I- Ecosystems 1 BM II- Inheritance & Evolution 1 BM III- Structure & Function 3  SL.5.1, SL.5.3, SL.5.6
Inclement Weather (Indoor) Activities		
<ul style="list-style-type: none"> <li>Who's your consumer?</li> </ul>	Through observational evidence, students determine the structure and function of a given consumer.	NM I- Scientific Thinking & Practice BM I- Scientific Method 1 BM III- Measurement & Data 3 NM II- Life Science BM I- Ecosystems 1 NM II- Life Science BM I- Ecosystems 2 BM III- Structure & Function 2 BM III- Structure & Function 3  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		