



**Mad Science<sup>®</sup>**  
**Programming**  
*Correlated with*  
**Prescribed Learning**  
**Science Outcomes for**  
**British Columbia**

Adopted in 2005

# KINDERGARTEN

Prescribed Learning Outcomes	Correlates with:
<p><b>Processes and Skills of Science</b></p> <p><i>It is expected that students will:</i></p> <ul style="list-style-type: none"> <li>• use the five senses to make observations</li> <li>• share with others information obtained by observing</li> </ul>	<p><b>All Mad Science programming</b></p>
<p><b>Life Science: Characteristics of Living Things</b></p> <p><i>It is expected that students will:</i></p> <ul style="list-style-type: none"> <li>• describe features of local plants and animals (e.g., color, shape, size, texture)</li> <li>• compare local plants</li> <li>• compare common animals</li> </ul>	<p><b>All About Animals ASP</b> <b>Bugs! ASP</b></p>
<p><b>Physical Science: Properties of Objects and Materials</b></p> <p><i>It is expected that students will:</i></p> <ul style="list-style-type: none"> <li>• describe properties of materials, including color, shape, texture, size, and weight</li> <li>• identify materials that make up familiar objects</li> <li>• describe ways to rethink, refuse, reduce, reuse, and recycle</li> </ul>	<p><b>Crazy Chemworks ASP – ALL</b> <b>Atmosphere and Beyond ASP</b> <b>Kitchen Chemistry ASP</b> <b>Earthworks ASP</b></p>
<p><b>Earth and Space Science: Surroundings</b></p> <p><i>It is expected that students will:</i></p> <ul style="list-style-type: none"> <li>• demonstrate the ability to observe their surroundings</li> <li>• describe features of their immediate environment</li> </ul>	<p><b>Walloping Weather ASP</b></p>

# GRADE 1

Prescribed Learning Outcomes	Correlates with:
<p><b>Processes and Skills of Science</b></p> <p><i>It is expected that students will:</i></p> <ul style="list-style-type: none"> <li>• communicate their observations, experiences, and thinking in a variety of ways (e.g., verbally, pictorially, graphically)</li> <li>• classify objects, events, and organisms</li> </ul>	<p><b>All Mad Science programming</b></p>
<p><b>Life Science: Needs of Living Things</b></p> <p><i>It is expected that students will:</i></p> <ul style="list-style-type: none"> <li>• classify living and non-living things</li> <li>• describe the basic needs of local plants and animals (e.g., food, water, light)</li> <li>• describe how the basic needs of plants and animals are met in their environment</li> </ul>	<p><b>All About Animals ASP</b>  <b>Bugs! ASP</b>  <b>Life in the Sea ASP</b></p>
<p><b>Physical Science: Force and Motion</b></p> <p><i>It is expected that students will:</i></p> <ul style="list-style-type: none"> <li>• demonstrate how force can be applied to move an object</li> <li>• compare the effect of friction on the movement of an object over a variety of surfaces</li> <li>• demonstrate and describe the effects of magnets on different materials</li> </ul>	<p><b>Energy Burst ASP</b>  <b>Fun-damental Forces ASP</b>  <b>Magnetic Magic ASP</b>  <b>Moving Motion ASP</b>  <b>Magnificent Magnets WS K-2</b></p>
<p><b>Earth and Space Science: Daily and Seasonal Changes</b></p> <p><i>It is expected that students will:</i></p> <ul style="list-style-type: none"> <li>• describe changes that occur in daily and seasonal cycles and their effects on living things</li> <li>• describe activities of Aboriginal peoples in BC in each seasonal cycle</li> </ul>	<p><b>Planets and Moons ASP</b></p>

## GRADE 2

Prescribed Learning Outcomes	Correlates with:
<p><b>Processes and Skills of Science</b></p> <p><i>It is expected that students will:</i></p> <ul style="list-style-type: none"> <li>• use their senses to interpret observations</li> <li>• infer the probable outcome of an event or behavior based on observations</li> </ul>	<p><b>All Mad Science programming</b></p>
<p><b>Life Science: Animal Growth and Changes</b></p> <p><i>It is expected that students will:</i></p> <ul style="list-style-type: none"> <li>• classify familiar animals according to similarities and differences</li> <li>• describe some changes that affect animals (e.g., hibernation, migration)</li> <li>• describe how animals are important in the lives of Aboriginal peoples in BC</li> <li>• describe ways animals are important to other living things and the environment</li> </ul>	<p><b>All About Animals ASP</b>  <b>Bugs! ASP</b>  <b>Life in the Sea ASP</b></p>
<p><b>Physical Science: Properties of Matter</b></p> <p><i>It is expected that students will:</i></p> <ul style="list-style-type: none"> <li>• identify the properties of solids, liquids, and gases</li> <li>• investigate changes to the properties of matter when it is heated or cooled</li> <li>• investigate the interactions of liquids and solids</li> </ul>	<p><b>Crazy Chemworks ASP – ALL</b>  <b>Che-Mystery ASP</b></p>
<p><b>Earth and Space Science: Air, Water, and Soil</b></p> <p><i>It is expected that students will:</i></p> <ul style="list-style-type: none"> <li>• describe physical properties of air, water, and soil</li> <li>• distinguish ways in which air, water, and soil interact</li> <li>• explain why air, water, and soil are important for living things</li> </ul>	<p><b>Atmosphere and Beyond ASP</b>  <b>Under Pressure ASP</b>  <b>Wacky Waves ASP</b>  <b>Where’s the Air WS K-2</b>  <b>Decomposers WS K-2</b></p>

## GRADE 3

Prescribed Learning Outcomes	Correlates with:
<p><b>Processes and Skills of Science</b></p> <p><i>It is expected that students will:</i></p> <ul style="list-style-type: none"> <li>• ask questions that foster investigations and explorations relevant to the content</li> <li>• measure objects and events</li> </ul>	<p><b>All Mad Science programming</b></p>
<p><b>Life Science: Plant Growth and Change</b></p> <p>It is expected that students will:</p> <ul style="list-style-type: none"> <li>• compare familiar plants according to similarities and differences</li> <li>• describe ways in which plants are important to other living things and the environment</li> <li>• describe how plants are harvested and used throughout the seasons</li> </ul>	<p><b>Photosynthesis WS 3-6</b></p>
<p><b>Physical Science: Materials and Structures</b></p> <p><i>It is expected that students will:</i></p> <ul style="list-style-type: none"> <li>• describe shapes that are part of natural and human-built structures (e.g., domes, arches, pyramids)</li> <li>• compare the effects of different materials, shapes, and forces on the strength and stability of different structures</li> <li>• conduct investigations into ways to improve the strength and stability of structures</li> </ul>	<p><b>Super Structures ASP</b></p>
<p><b>Earth and Space Science: Stars and Planets</b></p> <p><i>It is expected that students will:</i></p> <ul style="list-style-type: none"> <li>• describe characteristics and movements of objects in our solar system</li> <li>• compare familiar constellations in seasonal skies</li> <li>• demonstrate awareness of the special significance of celestial objects for Aboriginal peoples</li> </ul>	<p><b>Planets and Moons ASP</b>  <b>Space Phenomena ASP</b>  <b>Sun and Stars ASP</b></p>

## GRADE 4

Prescribed Learning Outcomes	Correlates with:
<p><b>Processes and Skills of Science</b></p> <p><i>It is expected that students will:</i></p> <ul style="list-style-type: none"> <li>• make predictions, supported by reasons and relevant to the content</li> <li>• use data from investigations to recognize patterns and relationships and reach conclusions</li> </ul>	<p><b>All Mad Science programming</b></p>
<p><b>Life Science: Habitats and Communities</b></p> <p><i>It is expected that students will:</i></p> <ul style="list-style-type: none"> <li>• compare the structures and behaviors of local animals and plants in different habitats and communities</li> <li>• analyze simple food chains</li> <li>• demonstrate awareness of the Aboriginal concept of respect for the environment</li> <li>• determine how personal choices and actions have environmental consequences</li> </ul>	<p><b>All About Animals ASP</b>  <b>Ecosystem Explorations WS 3-6</b></p>
<p><b>Physical Science: Sound and Light</b></p> <p><i>It is expected that students will:</i></p> <ul style="list-style-type: none"> <li>• identify sources of light and sound</li> <li>• explain properties of light (e.g., travels in a straight path, can be redirected)</li> <li>• explain properties of sound (e.g., travels in waves, travels in all directions)</li> </ul>	<p><b>Glow Show ASP</b>  <b>Lights, Color, Action! ASP</b>  <b>Sonic Sounds ASP</b>  <b>Turn Up the Volume WS 3-6</b>  <b>Good Vibrations WS 3-6</b>  <b>Electricity WS 3-6</b>  <b>Turn up the Volume WS 3-6</b></p>
<p><b>Earth and Space Science: Weather</b></p> <p><i>It is expected that students will:</i></p> <ul style="list-style-type: none"> <li>• measure weather in terms of temperature, precipitation, cloud cover, wind speed and direction</li> <li>• analyze impacts of weather on living and non-living things</li> </ul>	<p><b>Walloping Weather ASP</b></p>

## GRADE 5

Prescribed Learning Outcomes	Correlates with:
<p><b>Processes and Skills of Science</b></p> <p><i>It is expected that students will:</i></p> <ul style="list-style-type: none"> <li>• identify variables that can be changed in an experiment</li> <li>• evaluate the fairness of a given experiment</li> <li>• describe the steps in designing an experiment</li> </ul>	<p><b>Mad Science programming does not currently meet this standard.</b></p>
<p><b>Life Science: Human Body</b></p> <p><i>It is expected that students will:</i></p> <ul style="list-style-type: none"> <li>• describe the basic structure and functions of the human respiratory, digestive, circulatory, skeletal,</li> <li>• muscular, and nervous systems</li> <li>• explain how the different body systems are interconnected</li> </ul>	<p><b>Mission: Nutrition ASP Cells WS 3-6</b></p>
<p><b>Physical Science: Forces and Simple Machines</b></p> <p><i>It is expected that students will:</i></p> <ul style="list-style-type: none"> <li>• demonstrate how various forces can affect the movement of objects</li> <li>• demonstrate mechanical advantage of simple machines, including lever, wedge, pulley, ramp, screw, wheel</li> <li>• design a compound machine</li> <li>• describe applications of simple and compound machines used in daily life in BC communities</li> </ul>	<p><b>Energy Burst ASP Fundamental Forces ASP Mad Science Machines ASP Moving Motion ASP Rocket Science ASP Space Travel ASP</b></p>
<p><b>Earth and Space Science: Renewable and Non-Renewable Resources</b></p> <p><i>It is expected that students will:</i></p> <ul style="list-style-type: none"> <li>• analyze how BC's living and non-living resources are used</li> <li>• identify methods harvesting and processing BC's resources</li> <li>• analyze the Aboriginal concept of interconnectedness</li> <li>• describe potential environmental impacts of using BC's resources</li> </ul>	<p><b>Mad Science programming does not currently meet this standard.</b></p>

## GRADE 6

Prescribed Learning Outcomes	Correlates with:
<p><b>Processes and Skills of Science</b></p> <p><i>It is expected that students will:</i></p> <ul style="list-style-type: none"> <li>• manipulate and control a number of variables in an experiment</li> <li>• apply solutions to a technical problem (e.g., malfunctioning electrical circuit)</li> </ul>	<p><b>All Mad Science programming</b></p>
<p><b>Life Science: Diversity of Life</b></p> <p><i>It is expected that students will:</i></p> <ul style="list-style-type: none"> <li>• demonstrate the appropriate use of tools to examine living things that cannot be seen with the naked eye</li> <li>• analyze how different organisms adapt to their environments</li> <li>• distinguish between life forms as single or multi-celled organisms</li> </ul>	<p><b>Bugs! ASP</b>  <b>Life in the Sea ASP</b>  <b>Cells WS 3-6</b></p>
<p><b>Physical Science: Electricity</b></p> <p><i>It is expected that students will:</i></p> <ul style="list-style-type: none"> <li>• evaluate various methods for producing small electrical charges</li> <li>• test a variety of electrical pathways using direct current circuits</li> <li>• demonstrate that electricity can be transformed into light, heat, sound, motion, and magnetic effects</li> <li>• differentiate between renewable and non-renewable methods of producing electrical energy</li> </ul>	<p><b>Current Events ASP</b>  <b>Watts-Up ASP</b>  <b>Magnetic Magic ASP</b>  <b>Electricity WS 3-6</b></p>
<p><b>Earth and Space Science: Exploration of Extreme Environments</b></p> <p><i>It is expected that students will:</i></p> <ul style="list-style-type: none"> <li>• explain obstacles unique to exploration of a specific extreme environment</li> <li>• assess technologies used for extreme environments</li> <li>• describe contributions of Canadians to exploration technologies</li> </ul>	<p><b>Space Technology ASP</b>  <b>Living in Space ASP</b></p>