
# Mad Science® Programming *Correlated with* Prescribed Learning Science Outcomes for British Columbia

# KINDERGARTEN

| Prescribed Learning Outcomes | Correlates with: |
|---|---|
| **Processes and Skills of Science**<br><br>*It is expected that students will:*<br>• use the five senses to make observations<br>• share with others information obtained by observing | **All Mad Science programming** |
| **Life Science: Characteristics of Living Things**<br><br>*It is expected that students will:*<br>• describe features of local plants and animals (e.g., color, shape, size, texture)<br>• compare local plants<br>• compare common animals | |
| **Physical Science: Properties of Objects and Materials**<br><br>*It is expected that students will:*<br>• describe properties of materials, including color, shape, texture, size, and weight<br>• identify materials that make up familiar objects<br>• describe ways to rethink, refuse, reduce, reuse, and recycle | **Labworks, Slime Time, Dry Ice Capades, Chem-In-A-Flash, Jr. Reactors, PH Phactor, Dry Ice, Chem-Mystery, Glow Glow Show, Dirt on Garbage, Slime**, |
| **Earth and Space Science: Surroundings**<br><br>*It is expected that students will:*<br>• demonstrate the ability to observe their surroundings<br>• describe features of their immediate environment | |

# GRADE 1

| Prescribed Learning Outcomes | Correlates with: |
|---|---|
| **Processes and Skills of Science**<br><br>*It is expected that students will:*<br>• communicate their observations, experiences, and thinking in a variety of ways (e.g., verbally, pictorially,<br>• graphically)<br>• classify objects, events, and organisms | **All Mad Science programming** |
| **Life Science: Needs of Living Things**<br><br>*It is expected that students will:*<br>• classify living and non-living things<br>• describe the basic needs of local plants and animals (e.g., food, water, light)<br>• describe how the basic needs of plants and animals are met in their environment | |
| **Physical Science: Force and Motion**<br><br>*It is expected that students will:*<br>• demonstrate how force can be applied to move an object<br>• compare the effect of friction on the movement of an object over a variety of surfaces<br>• demonstrate and describe the effects of magnets on different materials | **Fun-damental Forces**<br>**Magnetic Magic** |
| **Earth and Space Science: Daily and Seasonal Changes**<br><br>*It is expected that students will:*<br>• describe changes that occur in daily and seasonal cycles and their effects on living things<br>• describe activities of Aboriginal peoples in BC in each seasonal cycle | |

# GRADE 2

| Prescribed Learning Outcomes | Correlates with: |
|---|---|
| **Processes and Skills of Science**<br><br>*It is expected that students will:*<br>• use their senses to interpret observations<br>• infer the probable outcome of an event or behavior based on observations | **All Mad Science programming** |
| **Life Science: Animal Growth and Changes**<br><br>*It is expected that students will:*<br>• classify familiar animals according to similarities and differences<br>• describe some changes that affect animals (e.g., hibernation, migration)<br>• describe how animals are important in the lives of Aboriginal peoples in BC<br>• describe ways animals are important to other living things and the environment | |
| **Physical Science: Properties of Matter**<br><br>*It is expected that students will:*<br>• identify the properties of solids, liquids, and gases<br>• investigate changes to the properties of matter when it is heated or cooled<br>• investigate the interactions of liquids and solids | **Labworks, Slime Time, Dry Ice Capades Cehm-In-A-Flash, Jr Reactors, PH Phactor, Super Sticky Stuff, Glow Show, Chem-Mystery, Dry Ice, Slime, Harnessing Heat** |
| **Earth and Space Science: Air, Water, and Soil**<br><br>*It is expected that students will:*<br>• describe physical properties of air, water, and soil<br>• distinguish ways in which air, water, and soil interact<br>• explain why air, water, and soil are important for living things | **Under Pressure**<br>**Wacky Waves**<br>**Decomposers** |

# GRADE 3

| Prescribed Learning Outcomes | Correlates with: |
|---|---|
| **Processes and Skills of Science**<br><br>*It is expected that students will:*<br>• ask questions that foster investigations and explorations relevant to the content<br>• measure objects and events | **All Mad Science programming** |
| **Life Science: Plant Growth and Change**<br><br>It is expected that students will:<br>• compare familiar plants according to similarities and differences<br>• describe ways in which plants are important to other living things and the environment<br>• describe how plants are harvested and used throughout the seasons | |
| **Physical Science: Materials and Structures**<br><br>*It is expected that students will:*<br>• describe shapes that are part of natural and human-built structures (e.g., domes, arches, pyramids)<br>• compare the effects of different materials, shapes, and forces on the strength and stability of different structures<br>• conduct investigations into ways to improve the strength and stability of structures | **Super Structures** |
| **Earth and Space Science: Stars and Planets**<br><br>*It is expected that students will:*<br>• describe characteristics and movements of objects in our solar system<br>• compare familiar constellations in seasonal skies<br>• demonstrate awareness of the special significance of celestial objects for Aboriginal peoples | **Rocekts and Rocket Building** |

# GRADE 4

| Prescribed Learning Outcomes | Correlates with: |
|---|---|
| **Processes and Skills of Science**<br><br>*It is expected that students will:*<br>• make predictions, supported by reasons and relevant to the content<br>• use data from investigations to recognize patterns and relationships and reach conclusions | **All Mad Science programming** |
| **Life Science: Habitats and Communities**<br><br>*It is expected that students will:*<br>• compare the structures and behaviors of local animals and plants in different habitats and communities<br>• analyze simple food chains<br>• demonstrate awareness of the Aboriginal concept of respect for the environment<br>• determine how personal choices and actions have environmental consequences | |
| **Physical Science: Sound and Light**<br><br>*It is expected that students will:*<br>• identify sources of light and sound<br>• explain properties of light (e.g., travels in a straight path, can be redirected)<br>• explain properties of sound (e.g., travels in waves, travels in all directions) | **Glow Show**<br>**Lights, Color, Action!**<br>**Sonic Sounds** |
| **Earth and Space Science: Weather**<br><br>*It is expected that students will:*<br>• measure weather in terms of temperature, precipitation, cloud cover, wind speed and direction<br>• analyze impacts of weather on living and non-living things | |

# GRADE 5

| Prescribed Learning Outcomes | Correlates with: |
|---|---|
| **Processes and Skills of Science**<br><br>*It is expected that students will:*<br>• identify variables that can be changed in an experiment<br>• evaluate the fairness of a given experiment<br>• describe the steps in designing an experiment | **Mad Science programming does not currently meet this standard.** |
| **Life Science: Human Body**<br><br>*It is expected that students will:*<br>• describe the basic structure and functions of the human respiratory, digestive, circulatory, skeletal,<br>• muscular, and nervous systems<br>• explain how the different body systems are interconnected | |
| **Physical Science: Forces and Simple Machines**<br><br>*It is expected that students will:*<br>• demonstrate how various forces can affect the movement of objects<br>• demonstrate mechanical advantage of simple machines, including lever, wedge, pulley, ramp, screw, wheel<br>• design a compound machine<br>• describe applications of simple and compound machines used in daily life in BC communities | **Fun-damental Forces**<br>**Science of Toys**<br>**Rocekt Demo and Rocket Building** |
| **Earth and Space Science: Renewable and Non-Renewable Resources**<br>*It is expected that students will:*<br>• analyze how BC's living and non-living resources are used<br>• identify methods harvesting and processing BC's resources<br>• analyze the Aboriginal concept of interconnectedness<br>• describe potential environmental impacts of using BC's resources | |

# GRADE 6

| Prescribed Learning Outcomes | Correlates with: |
|---|---|
| **Processes and Skills of Science**<br><br>*It is expected that students will:*<br>• manipulate and control a number of variables in an experiment<br>• apply solutions to a technical problem (e.g., malfunctioning electrical circuit) | **All Mad Science programming** |
| **Life Science: Diversity of Life**<br><br>*It is expected that students will:*<br>• demonstrate the appropriate use of tools to examine living things that cannot be seen with the naked eye<br>• analyze how different organisms adapt to their environments<br>• distinguish between life forms as single or multi-celled organisms | |
| **Physical Science: Electricity**<br><br>*It is expected that students will:*<br>• evaluate various methods for producing small electrical charges<br>• test a variety of electrical pathways using direct current circuits<br>• demonstrate that electricity can be transformed into light, heat, sound, motion, and magnetic effects<br>• differentiate between renewable and non-renewable methods of producing electrical energy | **Watts-Up**<br>**Magnetic Magic** |
| **Earth and Space Science: Exploration of Extreme Environments**<br><br>*It is expected that students will:*<br>• explain obstacles unique to exploration of a specific extreme environment<br>• assess technologies used for extreme environments<br>• describe contributions of Canadians to exploration technologies | |