

# Science Topics K-7



	<b>Processes and Skills of Science</b>	<b>Life Science</b>	<b>Physical Science</b>	<b>Earth and Space Science</b>
<b>Kindergarten</b>	<ul style="list-style-type: none"> <li>• Observing</li> <li>• Communicating (sharing)</li> </ul>	<b>Characteristics of Living Things</b> <i>Compare local plants and animals</i>	<b>Properties of Objects and Materials</b> <i>Composition, colour, shape, texture, size and weight; Recycling</i>	<b>Surroundings</b> <i>Observe and describe immediate environment Rocks, soil, and water Weather</i>
<b>Grade 1</b>	<ul style="list-style-type: none"> <li>• Communicating (recording)</li> <li>• Classifying</li> </ul>	<b>Needs of Living Things</b> <i>Basic needs of local plants and animals; Classify living and non-living things</i>	<b>Force and Motion</b> <i>Effects of friction; Magnets</i>	<b>Daily and Seasonal Changes</b> <i>And the effects of these cycles on living things; Aboriginal people</i>
<b>Grade 2</b>	<ul style="list-style-type: none"> <li>• Interpreting Observations</li> <li>• Making Inferences</li> </ul>	<b>Animal Growth and Changes</b> <i>Appearances, behaviors and life cycles; Hibernation, migration, decline in population; Importance of animals to other living things and to environment; Aboriginal people</i>	<b>Properties of Matter</b> <i>Solids, liquids and gases; Changes in matter from heating and cooling; Interaction of solids and liquids</i>	<b>Air, Water and Soil</b> <i>Physical properties; Interaction of each; Importance of each for living things</i>
<b>Grade 3</b>	<ul style="list-style-type: none"> <li>• Questioning</li> <li>• Measuring and Reporting</li> </ul>	<b>Plant Growth and Changes</b> <i>Similarities and differences in appearance and life cycles of familiar plants; Importance to other living things and the environment; seasonal use and harvesting</i>	<b>Materials and Structures</b> <i>Structure shapes that are natural/human made; Strength and stability of structures (materials, shapes and forces); Improvement of strength and stability.</i>	<b>Stars and Planets</b> <i>Characteristics and movements of objects in solar system; Compare constellations in seasonal skies, Aboriginal people</i>

	<b>Processes and Skills of Science</b>	<b>Life Science</b>	<b>Physical Science</b>	<b>Earth and Space Science</b>
<b>Grade 4</b>	<ul style="list-style-type: none"> <li>•Interpreting Data</li> <li>•Predicting</li> </ul>	<b>Habitats and Communities</b> <i>Local Animals and Plants; Environmental Issues; Aboriginal concept of respect for the environment</i>	<b>Light and Sound</b> <i>Sources; Properties</i>	<b>Weather</b> <i>Measurement of precipitation, temperature, wind, clouds; Impact on living and non-living things</i>
<b>Grade 5</b>	<ul style="list-style-type: none"> <li>•Designing Experiments</li> <li>•Fair Testing</li> </ul>	<b>Human Body</b> <i>Respiratory, digestive, circulatory, skeletal, muscular and nervous system; Interconnectedness of these systems</i>	<b>Forces and Simple Machines</b> <i>How forces affect the movement of objects, Advantage of simple machines; Compound machines; Simple and compound machines used in daily life in B.C.</i>	<b>Renewable and Non-Renewable Resources</b> <i>Living and non-living resources in B.C.; Extraction and harvesting; Aboriginal concept of interconnectedness of the environment in relation to responsibility and care of resources; Environmental impacts of resource use</i>
<b>Grade 6</b>	<ul style="list-style-type: none"> <li>•Controlling Variables</li> <li>•Scientific Problem Solving</li> </ul>	<b>Diversity of Life</b> <i>Tools to study organisms not visible to the naked eye; How organisms adapt to their environment; single and multi-celled organisms; Five kingdoms: Plantae, Protista, Anamalia, Monera, Fungi</i>	<b>Electricity</b> <i>Evaluation of methods for producing small charges; Testing pathways and circuits, transforming into light, heat etc.; Renewable and non-renewable methods for production</i>	<b>Exploration of Extreme Environments</b> <i>Obstacles of exploration; Technologies used in exploration; Contributions of Canadians to these technologies</i>
<b>Grade 7</b>	<ul style="list-style-type: none"> <li>•Hypothesizing</li> <li>•Developing Models</li> </ul>	<b>Ecosystems</b> <i>Interconnectedness of organisms and environment in an ecosystem; Human impact on local ecosystems</i>	<b>Chemistry</b> <i>Properties of matter; Classifying elements, compounds, mixtures; Substance and solutions: ph, solubility, concentration</i>	<b>Earth's Crust</b> <i>Core, mantle, crust; Rock formation; Tectonic plate movement; Change over time of the Earth's surface</i>

Adapted from the B.C. Science IRP by L. Henney and D. Michaud Apr/07



# Science Topics and Related Books for Kindergarten

Processes and Skills of Science	Life Science	Physical Science	Earth and Space Science	
<b>Kindergarten</b>	<ul style="list-style-type: none"> <li>• <b>Observing</b></li> <li>• <b>Communicating (sharing)</b></li> </ul>	<b>Characteristics of Living Things</b> <i>Compare local plants and animals</i>	<b>Properties of Objects and Materials</b> <i>Composition, colour, shape, texture, size and weight;</i> <i>Recycling</i>	<b>Surroundings</b> <i>Observe and describe immediate environment</i> <i>Rocks, soil, and water</i> <i>Weather</i>
<b>Book Kit Titles:</b>  <b>Big Books: (Bold type)</b>		<ul style="list-style-type: none"> <li>• Flowers (5,6)</li> <li>• Growing Peas (15)</li> <li>• This Food Grows Here (1)</li> <li>• Plant Parts (4,5)</li> <li>• Flower Petals (4,5)</li> <li>• Moose (14)</li> <li>• Deer (14)</li> <li>• Black Bears (14)</li> <li>• Porcupines (14)</li> <li>• Owls (14)</li> <li>• <b>Bear Facts (DRC)</b></li> <li>• <b>Growth and Change (DRC)</b></li> <li>• <b>The Carrot Seed (DRC)</b></li> <li>• <b>Every Flower is Beautiful/ All Kinds of Flowers (DRC)</b></li> <li>• <b>Growing a Plant (DRC)</b></li> <li>• <b>Animal Facts (DRC)</b></li> <li>• <b>Animal Legs (DRC)</b></li> <li>• <b>Chickens Aren't the only Ones (DRC)</b></li> </ul>	<ul style="list-style-type: none"> <li>• Why Recycle? (13,14)</li> <li>• Rubbish and Recycling (28)</li> <li>• Rough and Smooth (12)</li> <li>• What Colour is it? (2)</li> <li>• What Shape is it? (3)</li> <li>• Is It Heavy or Light? (3)</li> <li>• Is It Big or Little? (3)</li> <li>• How Does it Feel? (5)</li> <li>• Reuse (6)</li> <li>• Reduce (6)</li> <li>• Recycle (5)</li> <li>• <b>Big and Small (DRC)</b></li> <li>• <b>A World of Change (DRC)</b></li> </ul>	<ul style="list-style-type: none"> <li>• My Five Senses (5)</li> <li>• Let's Look Outside (2) (13,14)</li> <li>• Caring for Earth (13,14)</li> <li>• What Can you do with Water? (3-4)</li> <li>• Weather and Seasons (6)</li> <li>• Places on Earth (8)</li> <li>• Let's look at Pebbles (15-16)</li> <li>• Let's look at a Puddle (15-16)</li> <li>• Let's look at a Garden (15-16)</li> <li>• <b>See, Hear, Touch, Taste, Smell</b></li> <li>• <b>Look Closer (DRC)</b></li> <li>• <b>Places on Earth (DRC)</b></li> <li>• <b>The World Around</b></li> </ul>

		<ul style="list-style-type: none"> <li>•</li> </ul>		<p>Us (DRC)</p> <ul style="list-style-type: none"> <li>•My River (DRC)</li> <li>•</li> </ul>
<p><i>Sets of 6 DRC- Guided Reading books</i></p>		<ul style="list-style-type: none"> <li>• <i>Animal Nests (3)</i></li> <li>• <i>Two Eyes, Two Ears (6)</i></li> </ul>	<ul style="list-style-type: none"> <li>• <i>Slimy Skin (3)</i></li> <li>• <i>Big and Little (4)</i></li> <li>• <i>Tall Things (6)</i></li> <li>• <i>Shapes (11-12)</i></li> <li>• <i>Circles (11-12)</i></li> <li>• <i>Triangles (11-12)</i></li> </ul>	<ul style="list-style-type: none"> <li>•</li> </ul>



# Science Topics and Related Books for Grade One

**Processes and Skills of Science**

**Life Science**

**Physical Science**

**Earth and Space Science**

**Grade 1**

- Communicating (recording)
- Classifying

**Needs of Living Things**

*Basic needs of local plants and animals;  
Classify living and non-living things*

**Force and Motion**

*Effects of friction;  
Magnets*

**Daily and Seasonal Changes**

*And the effects of these cycles on living things; Aboriginal people*

**Book Kit Titles:**

**Big Books: (Bold type)**

- Caring for Plants (4)
- Our Vegetable Garden (15)
- Flower Farms (19)
- Corn (19)
- Fruit (19)
- Bright Yellow Flower (15)
- Where do Plants Grow? (2)
- Is It Living or Nonliving? (5)
- I Know It Is Nonliving (6)
- I Know It Is Living (6)
- **Bear Facts (DRC)**
- **Growth and Change (DRC)**
- **The Carrot Seed (DRC)**
- **Every Flower is Beautiful/ All Kinds of Flowers (DRC)**
- **Growing a Plant (DRC)**
- **Bean and Plant (DRC)**
- **Amazing Eggs (DRC)**
- **Animal Facts (DRC)**
- **Chickens aren't the Only Ones (DRC)**

- Balloons (28)
- What is Wind?(17,18)
- On the Move (2)
- Simple Machines (12)
- What Goes Up Must Come Down (16)
- Gripping and Slipping (38)
- When the Wind Blows (8)
- Push and Pull (6)
- Using Magnets (12)
- Magnets Quiz (28)
- Magnets (30)
- The Mystery of Magnets (34)
- Making Things Move (3-4)
- **Push and Pull**
- **How Magnets Work**
- **Catching the Wind (DRC)**
- **How Does My Bike Work? (DRC)**

- Weather Watch (11,12)
- Sing, It's Spring (28)
- Weather (6)
- Seasons (11)
- Look at the Leaves (15)
- The Sun (38)
- **One Spring Day and Night (16-17)**
- **The Four Seasons (3)**
- **Changing Seasons (DRC)**
- **Seasons (DRC)**
- **A Tree for all Seasons (DRC)**
- **Night and Day (DRC)**
- **Spring (DRC)**

*Sets of 6*

- *Animal Nests (3)*

- *Magnets (7-8)*

- *The Seasons (3)*

# Science Topics and Related Books for Grade Two

DRC- Guided Reading books	Processes and Skills of Science	Life Science	Physical Science	Earth and Space Science
<b>Grade 2</b>	<ul style="list-style-type: none"> <li>• <b>Interpreting Observations</b></li> <li>• <b>Making Inferences</b></li> </ul>	<b>Animal Growth and Changes</b> <i>Appearances, behaviors and life cycles; Hibernation, migration, decline in population; Importance of animals to other living things and to environment; Aboriginal people</i>	<b>Properties of Matter</b> <i>Solids, liquids and gases; Changes in matter from heating and cooling; Interaction of solids and liquids</i>	<b>Air, Water and Soil</b> <i>Physical properties; Interaction of each; Importance of each for living things</i>
<b>Book Kit Titles:</b>  <b>Big Books: (Bold type)</b>	<ul style="list-style-type: none"> <li>• <b>Let's Experiment (DRC)</b></li> </ul>	<ul style="list-style-type: none"> <li>• Facts About Honey Bees (20)</li> <li>• Tails Tell Tales (28)</li> <li>• Return of the Wolves (30)</li> <li>• The Chicken or the Egg? (22)</li> <li>• From Tadpole to Frog (15)</li> <li>• From Caterpillar to Moth (16)</li> <li>• Growing Up (40)</li> <li>• How Kittens Grow (20)</li> <li>• A Ladybug's Life (19,20)</li> <li>• A Hummingbird's Life (21,22)</li> <li>• A Mouse's Life (20)</li> <li>• Egg to Bird (28)</li> <li>• <b>Bear Facts (DRC)</b></li> <li>• <b>Growth and Change (DRC)</b></li> <li>• <b>The Carrot Seed (DRC)</b></li> <li>• <b>Every Flower is Beautiful/ All Kinds of Flowers (DRC)</b></li> <li>• <b>Growing a Plant (DRC)</b></li> <li>• <b>Animal Facts (DRC)</b></li> <li>• <b>Animal Legs (DRC)</b></li> <li>• <b>Animals Born Alive and Well (DRC)</b></li> <li>• <b>Bringing Back the Whooping Crane (DRC)</b></li> <li>• <b>Butterfly and Caterpillar (DRC)</b></li> </ul>	<ul style="list-style-type: none"> <li>• Making Paper (11)</li> <li>• Properties of Matter (28)</li> <li>• What is Matter? (15,16)</li> <li>• Glass (10)</li> <li>• Hot and Cold (6)</li> <li>• Water Changes (4)</li> <li>• Cooking and Change (24)</li> <li>• Matter All Around (15-16))</li> <li>• <b>The World of Matter (gr. 2-7)</b></li> <li>• <b>A World of Change (DRC)</b></li> <li>•</li> </ul>	<ul style="list-style-type: none"> <li>• Sand(11,12)</li> <li>• It's All in the Soil (34)</li> <li>• Dining on Dirt (38)</li> <li>• The Earth is Mostly Ocean (19-20)</li> <li>• Rocks (10)</li> <li>• Caring for Outdoor Places</li> <li>• <b>Amazing Water</b></li> <li>• <b>Wonders of the Ocean (DRC)</b></li> </ul>

*Sets of 6  
DRC- Guided  
Reading books*

*• Things that Sting  
(18)*

- Animal Coats (3)*
- Bird's Feet (5)*
- Night Animals (9-10)*
- Fingers and Thumbs (10)*
- Animal Homes (11-12)*
- Animal Lights (12)*
- Jellyfish (12)*
- Lions and Tigers (13-14)*
- Polar Bears (13-14)*
- Fur, Feathers or Skin (14)*
- Animal Mysteries (17-18)*
- Polar Bears (17-18)*
- Sea Horses (17-18)*
- Eggs and Chicks (19-20)*
- Tadpoles and Frogs (19-20)*
- Snakes (21-22)*
- Rabbits (21-22)*
- Chipmunks (21-22)*
- Moles (21-22)*
- Journey of a Humpback Whale (22-23)*
- Ants (23-24)*
- Spiders (23-24)*
- All About Pot-Bellied Pigs (28)*
- Winking, Blinking, Wiggling, and Wagging  
(24-28)*
- Animal Scavengers (28)*
- Bats (28)*
- Beavers (28)*
- Eagles (28)*

- Hot and Cold (6)*
- Matter all Around (15-16)*

- Glorious Mud (18)*



## Science Topics and Related Books for Grade Three

Processes and Skills of Science	Life Science	Physical Science	Earth and Space Science	
<b>Grade 3</b>	<ul style="list-style-type: none"> <li>• Questioning</li> <li>• Measuring and Reporting</li> </ul>	<p><b>Plant Growth and Changes</b>  <i>Similarities and differences in appearance and life cycles of familiar plants; Importance of to other living things and the environment; seasonal use and harvesting</i></p>	<p><b>Materials and Structures</b>  <i>Structure shapes that are natural/human made; Strength and stability of structures (materials, shapes and forces); Improvement of strength and stability.</i></p>	<p><b>Stars and Planets</b>  <i>Characteristics and movements of objects in solar system; Compare constellations in seasonal skies, Aboriginal people</i></p>
<p><b>Book Kit Titles:</b></p> <p><b>Big Books: (bold type)</b></p>	<ul style="list-style-type: none"> <li>• <b>Graphing the Rainforest (DRC)</b></li> <li>• <b>Bringing Back the Whooping Crane (DRC)</b></li> <li>• <b>Let's Experiment (DRC)</b></li> <li>• <b>Playground Science (DRC)</b></li> </ul>	<ul style="list-style-type: none"> <li>• From Seed to Plant (19,20)</li> <li>• Super Strawberries (15)</li> <li>• Orange Juice (30)</li> <li>• What Can you do with a Leaf? (28)</li> <li>• Coconut Seed or Fruit? (20)</li> <li>• Eat Your Vegetables (9,10)</li> <li>• Plant Leaves (28)</li> <li>• Fresh From the Farm (28)</li> <li>• Growing Cotton(20)</li> <li>• How Flowers Grow (19-20))</li> <li>• Plants Bite Back! (38)</li> <li>• <b>Every Flower is Beautiful/ All Kinds of Flowers (DRC)</b></li> <li>• <b>Amazing Plants (DRC)</b></li> </ul>	<ul style="list-style-type: none"> <li>• Bridges Across Canada (38)</li> <li>• Bridging the Gap (38)</li> <li>• Buildings (15,16)</li> <li>• Bridges (9,10)</li> <li>• Look Inside (17)</li> <li>• <b>Shape Search</b></li> </ul>	<ul style="list-style-type: none"> <li>• Sun, Moon and Stars (23)</li> <li>• Star Pictures (4)</li> <li>• Book of Space (28)</li> <li>• The Wonders of Space (24)</li> <li>• Look at the Stars (12)</li> <li>• Explore the Galaxy (24)</li> <li>• A Guide to Constellations (50-60)</li> <li>• <b>Exploring Space (DRC)</b></li> <li>• <b>Magic School Bus: Inside the Earth (DRC)</b></li> <li>• <b>Magic School Bus: Lost in the Solar System (DRC)</b></li> <li>• <b>Our Solar System (DRC)</b></li> <li>• <b>Planet Earth: a Big</b></li> </ul>

				<b>Ecology Book (DRC)</b> <b>• Stars and Planets (DRC)</b>
<i>Sets of 6 DRC- Guided Reading books</i>	<ul style="list-style-type: none"> <li>•</li> </ul>	<ul style="list-style-type: none"> <li>• <i>How Flowers Grow (19-20)</i></li> </ul>	<ul style="list-style-type: none"> <li>•</li> </ul>	<ul style="list-style-type: none"> <li>• <i>Look at the Stars (10)</i></li> <li>• <i>The Planets (14)</i></li> <li>• <i>Planet Earth (15-16)</i></li> <li>• <i>Sun, Moon and Stars (21-22)</i></li> <li>• <i>Living in Space (21-22)</i></li> <li>• <i>Planets in Our Solar System (24)</i></li> <li>• <i>Gravity and the Solar System (34-38)</i></li> <li>• <i>Space Busters: The Race to the Moon (38)</i></li> <li>• <i>Space Junk (40)</i></li> </ul>