



Mystery Science Alignment with British Columbia's Science Curriculum

Mystery Science - British Columbia's Science Curriculum

Mystery Science aligns to British Columbia's Science Curriculum. Each lesson (exploration & activity) is designed to take one hour per week. Mini-lessons are 5-minute videos that answer K-5 student questions and can be used as a jumping off point to engage learners for a full lesson planned by the teacher.

Lesson Extensions. Extensions are available for each lesson and offer an opportunity for students to continue their science content learning. They include assessments and a curated collection of additional activity suggestions, online resources, project ideas, and readings to help extend the learning.

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Kindergarten

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Big Idea	BC Content Learning Standard <i>Students are expected to know the following:</i>	Mystery Science Unit	Mystery Science Grade	Mystery Science Lessons
Plants and animals have observable features.	<ul style="list-style-type: none"> • basic needs of plants and animals 	Plant & Animal Secrets	Grade K	Lesson 1: Why do woodpeckers peck wood? Lesson 2, Read-Along: Where do animals live? Lesson 3: How can you find animals in the woods? Lesson 4, Read-Along: How do animals make their homes in the forest? Lesson 5: How do plants and trees grow? Lesson 6, Read-Along: Why would you want an old log in your backyard?
	<ul style="list-style-type: none"> • adaptations of local plants and animals 			
	<ul style="list-style-type: none"> • local First Peoples uses of plants and animals 			
Humans interact with matter every day through familiar materials.	<ul style="list-style-type: none"> • properties of familiar materials 			



Kindergarten, continued

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Big Idea	BC Content Learning Standard <i>Students are expected to know the following:</i>	Mystery Science Unit	Mystery Science Grade	Mystery Science Lessons
The motion of objects depend on their properties.	<ul style="list-style-type: none"> effects of pushes/pulls on movement 	Force Olympics	Grade K	Lesson 1: What's the biggest excavator? Lesson 2, Read-Along: Why do builders need so many big machines?
	<ul style="list-style-type: none"> effects of size, shape, and materials on movement 	Force Olympics	Grade K	Lesson 3: How can you knock down a wall made of concrete? Lesson 4, Read-Along: How can you knock down the most bowling pins? Lesson 5: How can we protect a mountain town from falling rocks? Lesson 6, Read-Along: How could you invent a trap?
Daily and seasonal changes affect all living things.	<ul style="list-style-type: none"> weather changes 	Wild Weather	Grade K	Lesson 1, Read-Along: How can you get ready for a big storm? Lesson 2: Have you ever watched a storm? Lesson 3: How many different kinds of weather are there?
	<ul style="list-style-type: none"> seasonal changes 	Circle of Seasons	Grade K	Lesson 1, Read-Along: How do you know what to wear for the weather? Lesson 2: What would the weather be like on your birthday?
	<ul style="list-style-type: none"> living things make changes to accommodate daily and seasonal changes 	Circle of Seasons Mini-lessons	Grade K	Lesson 3: Why do birds lay eggs in the spring? Mini-lesson: Why do bears hibernate?*** Mini-lesson: Where do bugs go in winter? Mini-lesson: Why do animals come back after going to warm places in winter?
	<ul style="list-style-type: none"> First People's knowledge of seasonal changes 			



Grade 1

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Big Idea	BC Content Learning Standard <i>Students are expected to know the following:</i>	Mystery Science Unit	Mystery Science Grade	Mystery Science Lessons
Living things have features and behaviours that help them survive in their environment.	<ul style="list-style-type: none"> • classification of living and non-living things 			
	<ul style="list-style-type: none"> • names of local plants and animals 			
	<ul style="list-style-type: none"> • structural features of living thing in the local environment 	Plant & Animal Superpowers	Grade 1	Lesson 1: Why do birds have beaks? Lesson 2, Read-Along: Why do baby ducks follow their mother? Lesson 3: Why are polar bears white? Lesson 5: Why don't trees blow down in the wind? Lesson 6, Read-Along: What do sunflowers do when you're not looking?
	<ul style="list-style-type: none"> • behavioral adaptations of animals in the local environment 		Plant Adventures	Grade 2
Matter is useful because of its properties.	<ul style="list-style-type: none"> • specific properties of materials allow us to use them in different ways 	Material Magic	Grade 2	Lesson 1: Why do we wear clothes?



Grade 1, continued

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Big Idea	BC Content Learning Standard <i>Students are expected to know the following:</i>	Mystery Science Unit	Mystery Science Grade	Mystery Science Lessons
Light and sound can be produced and their properties can be changed.	<ul style="list-style-type: none"> natural and artificial sources of light and sound 	Lights & Sounds	Grade 1	<p>Lesson 1: How do they make silly sounds in cartoons? Lesson 2, Read-Along: Where do sounds come from? Lesson 3: What if there were no windows? Lesson 4, Read-Along: Can you see in the dark? Lesson 5: How could you send a secret message to someone far away? Lesson 6, Read-Along: How do boats find their way in the fog?</p>
	<ul style="list-style-type: none"> properties of light and sound depend on their source and the objects with which they interact 			
Observable patterns and cycles occur in the local sky and landscape.	<ul style="list-style-type: none"> common objects in the sky 	Spinning Sky	Grade 1	<p>Lesson 1: Could a statue's shadow move? Lesson 2, Read-Along: What does your shadow do when you're not looking? Lesson 3: How can the Sun help you if you're lost? Lesson 4, Read-Along: Why do you have to go to bed early in the summer? Lesson 5: Why do the stars come out at night? Lesson 6, Read-Along: How can stars help you if you get lost?</p>
	<ul style="list-style-type: none"> local patterns that occur on Earth and in the sky 			
	<ul style="list-style-type: none"> The knowledge of the First Peoples: <ul style="list-style-type: none"> - shared First Peoples knowledge of the sky - local First Peoples knowledge of the local landscape, plants, and animals - local First Peoples understanding and use of seasonal rounds 			



Grade 2

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Big Idea	BC Content Learning Standard <i>Students are expected to know the following:</i>	Mystery Science Unit	Mystery Science Grade	Mystery Science Lessons
Living things have life cycles defined by their environment.	<ul style="list-style-type: none"> metamorphic and non-metamorphic life cycles of different organisms 	Power of Flowers	Grade 3	Lesson 1: Why do plants grow flowers? Lesson 2: Why do plants give us fruit? Lesson 3: Why are some apples red and some green? Lesson 4: How could you make the biggest fruit in the world?
	<ul style="list-style-type: none"> similarities between offspring and parent 	Plant & Animal Superpowers	Grade 1	Lesson 4, Read-Along: Why do family members look alike?
	<ul style="list-style-type: none"> First Peoples use of their knowledge of life cycles 			
Materials can be changed through physical and chemical processes.	<ul style="list-style-type: none"> physical ways of changing materials 	Material Magic	Grade 2	Lesson 4: What materials might be invented in the future? Lesson 5: Could you build a house out of paper?
	<ul style="list-style-type: none"> chemical ways of changing materials 			



Grade 2, continued

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Big Idea	BC Content Learning Standard <i>Students are expected to know the following:</i>	Mystery Science Unit	Mystery Science Grade	Mystery Science Lessons
Forces influence the motion of an object.	<ul style="list-style-type: none"> types of forces 	Invisible Forces	Grade 3	<p>Lesson 1: How could you win a tug-of-war against a bunch of adults?</p> <p>Lesson 2: What makes bridges so strong?</p> <p>Lesson 3: How can you go faster down a slide?</p> <p>Lesson 4: What can magnets do?</p> <p>Lesson 5: How can you unlock a door using a magnet?</p>
Water is essential to all living things, and it cycles through the environment.	<ul style="list-style-type: none"> water sources including local watersheds 	Work of Water	Grade 2	Lesson 1: If you floated down a river, where would you end up?
	<ul style="list-style-type: none"> water conservation 			
	<ul style="list-style-type: none"> the water cycle 	Stormy Skies	Grade 3	<p>Lesson 1: Where do clouds come from?</p> <p>Lesson 2: How can we predict when it's going to storm?</p> <p>Lesson 4: How can you keep a house from blowing away in a windstorm?</p>
	<ul style="list-style-type: none"> Local First People's knowledge of water: <ul style="list-style-type: none"> - water cycles - conservation - connection to other systems 			



Grade 3

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Big Idea	BC Content Learning Standard <i>Students are expected to know the following:</i>	Mystery Science Unit	Mystery Science Grade	Mystery Science Lessons
Living things are diverse, can be grouped, and interact in their ecosystems.	<ul style="list-style-type: none"> biodiversity in the local environment 	Animal Adventures Animals Through Time	Grade 2 Grade 3	Lesson 1: How many different kinds of animals are there? Lesson 2: Why do frogs say "ribbit?" Lesson 3: How could you get more birds to visit a bird feeder? Lesson 1: Where can you find whales in a desert? Lesson 2: How do we know what dinosaurs looked like? Lesson 3: Can you outrun a dinosaur? Lesson 4: What kinds of animals might there be in the future? Lesson 5: Can selection happen without people? Lesson 6: Why do dogs wag their tails? Lesson 7: What's the best way to get rid of mosquitoes? Lesson 8: How long can people (and animals) survive in outer space?
	<ul style="list-style-type: none"> the knowledge of the First Peoples of ecosystems 			
	<ul style="list-style-type: none"> energy is needed for life 	Web of Life*	Grade 5	Lesson 1: Why would a hawk move to New York City? Lesson 2: What do plants eat? Lesson 3: Where do fallen leaves go? Lesson 4: Do worms really eat dirt? Lesson 5: Why do you have to clean a fish tank by not a pond? Lesson 6: Why did the dinosaurs go extinct?

*[Web of Life](#) was originally designed for Grade 5, but can be taught in Grade 3 with modifications. Expect elements of this unit to be advanced for Grade 3.



Grade 3, continued

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Big Idea	BC Content Learning Standard <i>Students are expected to know the following:</i>	Mystery Science Unit	Mystery Science Grade	Mystery Science Lessons
All matter is made of particles.	<ul style="list-style-type: none"> matter is anything that has mass and takes up space 	Chemical Magic*	Grade 5	<p>Lesson 4: What do fireworks, rubber, and Silly Putty have in common?</p> <p>Lesson 5: Why do some things explode?</p>
	<ul style="list-style-type: none"> atoms are building blocks of matter 			
Thermal energy can be produced and transferred.	<ul style="list-style-type: none"> sources of thermal energy 	Sunny Skies**	Grade K	<p>Lesson 1, Read-Along: How could you walk barefoot across hot pavement without burning your feet?</p> <p>Lesson 2: How could you warm up a frozen playground?</p> <p>Lesson 3: Why does it get cold in winter?</p>
	<ul style="list-style-type: none"> transfer of thermal energy 			
Wind, water, and ice change the shape of the land.	<ul style="list-style-type: none"> major local landforms 	Mini-lessons		Mini-lesson: Could a mountain turn into a volcano?
	<ul style="list-style-type: none"> local First Peoples knowledge of local landforms 			
	<ul style="list-style-type: none"> observable changes in the local environment caused by erosion and deposition by wind, water, and ice 	Work of Water	Grade 2	<p>Lesson 2: Why is there sand at the beach?</p> <p>Lesson 3: What's strong enough to make a canyon?</p> <p>Lesson 4: How can you stop a landslide?</p>



MYSTERY
science

Grade 4

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Big Idea	BC Content Learning Standard <i>Students are expected to know the following:</i>	Mystery Science Unit	Mystery Science Grade	Mystery Science Lessons
All living things sense and respond to their environment.	<ul style="list-style-type: none"> sensing and responding: <ul style="list-style-type: none"> - humans - other animals - plants 	Human Machine	Grade 4	Lesson 2: What do people who are blind see? Lesson 3: How can some animals see in the dark?
	<ul style="list-style-type: none"> biomes as large regions with similar environmental features 	Waves of Sound	Grade 4	Lesson 1: How far can a whisper travel? Lesson 2: What would happen if you screamed in outer space? Lesson 3: Why are some sounds high and some sounds low?
Matter has mass, takes up space, and can change phase.	<ul style="list-style-type: none"> phases of matter 	Stormy Skies	Grade 3	Lesson 3: Why are some places always hot?
	<ul style="list-style-type: none"> the effect of temperature on particle movement 	Material Magic Mini-lessons	Grade 2	Lesson 2: Can you really fry an egg on a hot sidewalk? Lesson 3: Why are so many toys made out of plastic? Mini-lesson: Can you make lava?



Grade 4, continued

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Big Idea	BC Content Learning Standard <i>Students are expected to know the following:</i>	Mystery Science Unit	Mystery Science Grade	Mystery Science Lessons
Energy can be transformed.	<ul style="list-style-type: none"> energy: <ul style="list-style-type: none"> - has various forms - is conserved 	Energizing Everything	Grade 4	Lesson 1: How is your body similar to a car? Lesson 2: What makes roller coasters go so fast? Lesson 3: Why is the first hill of a roller coaster always the highest?
	<ul style="list-style-type: none"> devices that transform energy 	Energizing Everything	Grade 4	Lesson 6: What if there were no electricity? Lesson 7: How long did it take to travel across the country before cars and planes? Lesson 8: Where does energy come from?
The motions of Earth and the moon cause observable patterns that affect living and non-living systems.	<ul style="list-style-type: none"> local changes caused by Earth's axis, rotation, and orbit 	Spaceship Earth	Grade 5	Lesson 1: How fast does the Earth spin? Lesson 2: Who set the first clock? Lesson 3: How can the Sun tell you the season? Lesson 4: Why do the stars change with the seasons? Lesson 5: Why does the Moon change shape?
	<ul style="list-style-type: none"> the effects of the relative positions of the sun, moon, and Earth including local First Peoples perspectives 	Mini-lessons		Mini-lesson: Why do places have different times? Mini-lesson: How often do eclipses happen? Mini-lesson: What is the Moon made of? Mini-lesson: Why does the Moon turn blood red during a lunar eclipse?



Grade 5

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Big Idea	BC Content Learning Standard <i>Students are expected to know the following:</i>	Mystery Science Unit	Mystery Science Grade	Mystery Science Lessons
Multicellular organisms have organ systems that enable them to survive and interact with their environment.	<ul style="list-style-type: none"> basic structures and functions of body systems: <ul style="list-style-type: none"> - digestive - musculo-skeletal - respiratory - circulatory 	Human Machine Mini-lessons	Grade 4	<p>Lesson 1: Why do your biceps bulge?</p> <p>Mini-lesson: What would happen if you didn't have a skull?*</p> <p>Mini-lesson: Why do our skeletons have so many bones?*</p> <p>Mini-lesson: How does your heart pump blood?*</p> <p>Mini-lesson: Why do we get hiccups?</p> <p>Mini-lesson: Why do we need blood?</p>
Solutions are homogeneous.	<ul style="list-style-type: none"> solutions and solubility 	Chemical Magic	Grade 5	<p>Lesson 1: Are magic potions real?</p> <p>Lesson 2: Could you transform something worthless into gold?</p> <p>Lesson 3: What would happen if you drank a glass of acid?</p>



Grade 5, continued

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Big Idea	BC Content Learning Standard <i>Students are expected to know the following:</i>	Mystery Science Unit	Mystery Science Grade	Mystery Science Lessons
Machines are devices that transfer force and energy.	<ul style="list-style-type: none"> properties of simple machines and their force effects 	Energizing Everything	Grade 4	Lesson 4: Could you knock down a building using only dominoes? Lesson 5: Can you build a chain reaction machine?
	<ul style="list-style-type: none"> machines: <ul style="list-style-type: none"> - constructed - found in nature 			
	<ul style="list-style-type: none"> power - the rate at which energy is transferred 			
Earth materials change as they move through the rock cycle and can be used as natural resources.	<ul style="list-style-type: none"> the rock cycle 	The Birth of Rocks	Grade 4	Lesson 1: Could a volcano pop up where you live? Lesson 2: Why do some volcanoes explode? Lesson 3: Will a mountain last forever? Lesson 4: How could you survive a landslide?
	<ul style="list-style-type: none"> local types of earth materials 			
	<ul style="list-style-type: none"> First Peoples concepts of interconnectedness in the environment 			
	<ul style="list-style-type: none"> the nature of sustainable practices around BC's resources 	Watery Planet	Grade 5	Lesson 1: How much water is in the world? Lesson 2: When you turn on the faucet, where does the water come from? Lesson 3: Can we make it rain? Lesson 4: How can you save a town from a hurricane?
	<ul style="list-style-type: none"> First Peoples knowledge of sustainable practices 			



Grade 6

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Big Idea	BC Content Learning Standard <i>Students are expected to know the following:</i>	Mystery Science Unit	Mystery Science Grade	Mystery Science Lessons
Multicellular organisms rely on internal systems to survive, reproduce, and interact with their environment.	<ul style="list-style-type: none"> basic structures and functions of body systems: <ul style="list-style-type: none"> - excretory - reproductive - hormonal - nervous 	Human Machine	Grade 4	Lesson 4: How does your brain control your body?
Everyday materials are often mixtures.	<ul style="list-style-type: none"> heterogeneous mixtures 			
	<ul style="list-style-type: none"> mixtures: <ul style="list-style-type: none"> - separated using a difference in component properties - local First Peoples knowledge of separation and extraction methods 			



Grade 6, continued

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Big Idea	British Columbia Content Learning Standard <i>Students are expected to know the following:</i>	Mystery Science Unit		Mystery Science Lessons
Newton's three laws of motion describe the relationship between force and motion.	<ul style="list-style-type: none"> Newton's three laws of motion 			
	<ul style="list-style-type: none"> effects of balanced and unbalanced forces in daily physical activities 			
	<ul style="list-style-type: none"> force of gravity 	Spaceship Earth Mini-lessons	Grade 5	Lesson 7: Why is gravity different on other planets? Mini-lesson: What is a black hole?
The solar system is part of the Milky Way, which is one of billions of galaxies.	<ul style="list-style-type: none"> the overall scale, structure, and age of the universe 	Spaceship Earth Mini-lessons	Grade 5	Lesson 8: Could there be life on other planets? Mini-lesson: Are aliens real?
	<ul style="list-style-type: none"> the position, motion, and components of our solar system in our galaxy. 	Spaceship Earth Mini-lessons	Grade 5	Lesson 6: What are the wandering stars? Mini-lesson: Is Earth the only planet with life? Mini-lesson: Is Pluto a planet? Mini-lesson: Why isn't Pluto a (major) planet anymore? Mini-lesson: What causes the Northern Lights? Mini-lesson: Has a shooting star ever landed on someone?