



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

Big Idea		BC Content Learning Standard dents are expected to know the following:	Mystery Science Unit	Mystery Science Grade	Mystery Science Lessons
ants and animals have observable features.	•	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?
Plants a obser	•	adaptations of local plants and animals			
Pla	•	local First Peoples uses of plants and animals			
Humans interact with matter every day through familiar materials.	•	properties of familiar materials			





Kindergarten, continued

Big Idea	BC Content Learning Standard Students are expected to know the following:	Mystery Science Unit	Mystery Science Grade	Mystery Science Lessons
objects their	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?
The motion of ok depend on th properties.	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?
seasonal changes all living things.	weather changes	Weather Watching	Grade K	Lesson 1: Have you ever watched a storm? Lesson 2, Read-along: How can you get ready for a big storm? Lesson 3: What will the weather be like on your birthday?
sonal	seasonal changes			Lesson 4, Read-along: How do you know what to wear for the weather?
and ect a	living things make changes to accommodate daily and seasonal changes	Mini-lessons		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?
Daily aff	First People's knowledge of seasonal changes			





Big Idea		BC Content Learning Standard lents are expected to know the following:	Mystery Science Unit	Mystery Science Grade	Mystery Science Lessons
Ф	•	classification of living and non-living things			
and	•	names of local plants and animals			
g things have features ours that help them su in their environment.	•	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
Living things have features and behaviours that help them survive in their environment.	•	behavioral adaptations of animals in the local environment	<u>Plant</u> <u>Adventures</u>	Grade 2	you're not looking? Lesson 1: How did a tree travel halfway around the world? Lesson 2: Could a plant survive without light? Lesson 3: Why do trees grow so tall? Lesson 4: Should you water a cactus? Lesson 5: Where do plants grow best?
Matter is useful because of its properties.	•	specific properties of materials allow us to use them in different ways	<u>Material</u> <u>Magic</u>	Grade 2	Lesson 1: Why do we wear clothes?





Grade 1, continued

Big Idea	BC Content Learning Standard Students are expected to know the following:	Mystery Science Unit	Mystery Science Grade	Mystery Science Lessons
I sound can be ed and their can be changed.	natural and artificial sources of light and sound	<u>Lights &</u> <u>Sounds</u>	Grade 1	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?
Light and sound can produced and their properties can be chan	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.	common objects in the sky	Spinning Sky	Grade 1	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 glost?
	local patterns that occur on Earth and in the sky			
Observa cycles o sky ar	 The knowledge of the First Peoples: 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 			





Big Idea	BC Content Learn Students are expected to		Mystery Science Unit	Mystery Science Grade	Mystery Science Lessons
cycles nment.	metamorphic and r cycles of different or	non-metamorphic life ganisms	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?
Living things have life cycles defined by their environment.	 similarities between 	offspring and parent	Plant & Animal Superpowers	Grade 1	Lesson 4, Read-along: Why do family members look alike?
Living	First Peoples use of life cycles	of their knowledge of			
aterials can be changed through physical and chemical processes.	• physical ways of ch	anging materials	<u>Material</u> <u>Magic</u>	Grade 2	Lesson 4: What materials might be invented in the future? Lesson 5: Could you build a house out of paper?
Materials ca through p chemical	• chemical ways of c	hanging materials			





Grade 2, continued

Big Idea	BC Content Learning Standard Students are expected to know the following:	Mystery Science Unit	Mystery Science Grade	Mystery Science Lessons
Forces influence the motion of an object.	• types of forces	Invisible Forces	Grade 3	Lesson 1: How could you win a tug-of-war against a bunch of adults? Lesson 2: What makes bridges so strong? Lesson 3: How can you go faster down a slide? Lesson 4: What can magnets do? Lesson 5: How can you unlock a door using a magnet?
ω .:	water sources including local watersheds	Work of Water	Grade 2	Lesson 1: If you floated down a river, where would you end up?
o all ycle nent	water conservation			
Water is essential to all living things, and it cycles through the environment.	• the water cycle	Stormy Skies	Grade 3	Lesson 1: Where do clouds come from? Lesson 2: How can we predict when it's going to storm? Lesson 4: How can you keep a house from blowing away in a windstorm?
Water is es living things through the	 Local First People's knowledge of water: water cycles conservation connection to other systems 			





Big Idea		BC Content Learning Standard dents are expected to know the following:	Mystery Science Unit	Mystery Science Grade	Mystery Science Lessons
rouped, and ns.			Animal Adventures	Grade 2	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?
Living things are diverse, can be grouped, interact in their ecosystems.	•	biodiversity in the local environment	Animals Through Time	Grade 3	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?
	•	the knowledge of the First Peoples of ecosystems			
	•	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

Big Idea	Stu	BC Content Learning Standard udents are expected to know the following:	Mystery Science Unit	Mystery Science Grade	Mystery Science Lessons
All matter is made of particles.	•	matter is anything that has mass and takes up space	Chemical Magic*	Grade 5	Lesson 4: What do fireworks, rubber, and Silly Putty have in common? Lesson 5: Why do some things explode?
All matte made particle	•	atoms are building blocks of matter			
energy oduced sferred.	•	sources of thermal energy	Weather		Lesson 5: How could you warm up a frozen
Thermal energy can be produced and transferred.	•	transfer of thermal energy	Weather Watching**	Grade 3	playground? Lesson 6, Read-along: How could you walk barefoot across hot pavement without burning your feet?
od.	•	major local landforms	<u>Mini-lessons</u>		Mini-lesson: Could a mountain turn into a volcano?
water, and hange the of the land	•	local First Peoples knowledge of local landforms			
Wind, water, ice change shape of the	•	observable changes in the local environment caused by erosion and deposition by wind, water, and ice	Work of Water	Grade 2	Lesson 2: Why is there sand at the beach? Lesson 3: What's strong enough to make a canyon? Lesson 4: How can you stop a landslide?





Big Idea	BC Content Learning Standard Students are expected to know the following:	Mystery Science Unit	Mystery Science Grade	Mystery Science Lessons
sense and their ent.	sensing and responding:	Human Machine	Grade 4	Lesson 2: What do people who are blind see? Lesson 3: How can some animals see in the dark?
All living things sensonessing respond to their environment.	- humans - other animals - plants		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?
All livin re	biomes as large regions with similar environmental features	Stormy Skies	Grade 3	Lesson 3: Why are some places always hot?
s mass, takes up can change phase.	phases of matter	<u>Material</u> <u>Magic</u>	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?
s mass, can cha		Mini-lessons		Mini-lesson: Can you make lava?
Matter has mass, space, and can cha	the effect of temperature on particle movement			





Grade 4, continued

Big Idea	BC Content Learning Standard Students are expected to know the following:	Mystery Science Unit	Mystery Science Grade	Mystery Science Lessons
energy can be transformed.	energy:has various formsis 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?
Energy transfo	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?
ions of Earth and the moon observable patterns that ng and non-living systems.	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?
The motions of Eacause observak	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?





Big Idea	BC Content Learning Standard Students are expected to know the following:	Mystery Science Unit	Mystery Science Grade	Mystery Science Lessons
Multicellular organisms have organ systems that enable them to survive and interact with their environment.	basic structures and functions of body systems: digestive musculo-skeletal respiratory circulatory	Human Machine Mini-lessons	Grade 4	Lesson 1: Why do your biceps bulge? Mini-lesson: What would happen if you didn't have a skull?** Mini-lesson: Why do our skeletons have so many bones?** Mini-lesson: How does your heart pump blood?** Mini-lesson: Why do we get hiccups? Mini-lesson: Why do we need blood?
Solutions are homogeneous.	• solutions and solubility	<u>Chemical</u> <u>Magic</u>	Grade 5	Lesson 1: Are magic potions real? Lesson 2: Could you transform something worthless into gold? Lesson 3: What would happen if you drank a glass of acid?





Grade 5, continued

Big Idea	BC Content Learning Standard Students are expected to know the following:	Mystery Science Unit	Mystery Science Grade	Mystery Science Lessons
Machines are devices that transfer force and energy.	 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?
	machines: constructed found in nature			
	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.	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?
	local types of earth materials			
	First Peoples concepts of interconnectedness in the environment			
	the nature of sustainable practices around BC's resources	<u>Watery</u> <u>Planet</u>	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?
	First Peoples knowledge of sustainable practices			





Big Idea	BC Content Learning Standard Students are expected to know the following:	Mystery Science Unit	Mystery Science Grade	Mystery Science Lessons
Multicellular organisms rely on internal systems to survive, reproduce, and interact with their environment.	 basic structures and functions of body systems: excretory reproductive hormonal nervous 	Human Machine	Grade 4	Lesson 4: How does your brain control your body?
Everyday materials are often mixtures.	heterogeneous mixtures			
	mixtures: - separated using a difference in component properties - local First Peoples knowledge of separation and extraction methods			





Grade 6, continued

Big Idea		British Columbia Content Learning Standard dents are expected to know the following:	Mystery Science Unit		Mystery Science Lessons
Newton's three laws of motion describe the relationship between force and motion.	•	Newton's three laws of motion			
	•	effects of balanced and unbalanced forces in daily physical activities			
	•	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.	•	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?
	•	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?

