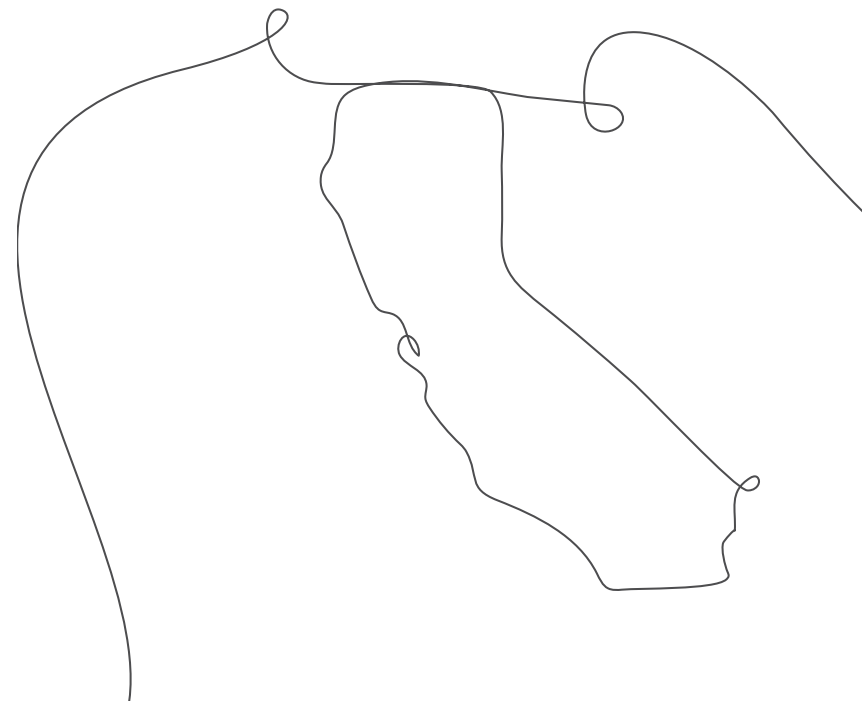


Mystery Science lesson alignment

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Needs of Plants and Animals

Topic	Amplify Lessons	Duration	Mystery Science Lessons	Duration
Why are there no monarch caterpillars since the Field was made into the Garden?	1.1 Pre-Unit Assessment	55 mins	Plant & Animal Needs How Do Scientists Know So Much? (See the "Back-To-School Special" section)	30 mins
	1.2 Science Walk	45 mins		
	1.3 Observing a Place	50 mins	Animal Needs: Food Mystery 1: Why do woodpeckers peck wood?	40 mins
	1.4 Exploring Animal Needs	45 mins	Animal Needs: Shelter Mystery 2 Read Along: Where do animals live?	45 mins
	1.5 Investigating Animal Habitats	45 mins	Animal Needs: Safety Mystery 3: How can you find animals in the woods?	30 mins
	1.6 Explaining Why There Are No Caterpillars	45 mins		
Why did two milkweed seeds become plants, but the other did not?	2.1 Growing Seeds	45 mins		
	2.2 Comparing Plant Growth	45 mins	Plant Needs: Water & Light Mystery 5: How do plants and trees grow? (See Part 1: Plants Need Water)	25 mins
	2.3 Investigating Plant Needs	45 mins		
	2.4 A Plant in the Desert	45 mins		
	2.5 Observing Garlic Roots	45 mins		
	2.6 Observing Radish Roots	45 mins		
	2.7 Explaining Why There Are No Caterpillars	45 mins		

Topic	Amplify Lessons	Duration	Mystery Science Lessons	Duration
Why do the milkweed plants that get water grow differently?	3.1 Planning a Light Investigation	45 mins	Plant Needs: Water & Light Mystery 5: How do plants and trees grow? (See Part 2: Plants Need Sun)	25 mins
	3.2 Observing Light Investigations	45 mins		
	3.3 Growing Toward the Light	45 mins		
	3.4 Above and Below	45 mins	Animals & Changing the Environment Mystery 4 Read Along: How do animals make their home in the forest?	
How can humans make sure that other living things will be able to live and grow?	4.1 Investigating Monarchs	45 mins	Animal Needs & Changing the Environment Mystery 6 Read Along: Why would you want an old log in your backyard?	30 mins
	4.2 Investigating Human Needs	45 mins		
	4.3 Reflecting on Needs of Living Things	45 mins	Mini-Lesson: Why do animals come back after going to warm places in winter?	5 mins
	4.4 End-of-Unit Assessment	10 mins/ student		

Pushes and Pulls

Topic	Amplify Lessons	Duration	Mystery Science Lessons	Duration
How do we make a pinball start to move?	1.1 Pre-Unit Assessment	45 mins		
	1.2 Talking About Forces	45 mins	Pushes & Pulls Mystery 1: What's the biggest excavator?	30 mins
	1.3 Forces Happen Between Two Objects	45 mins		
	1.4 We Are Engineers	45 mins		
	1.5 Writing About Forces	45 mins		
How do we make a pinball move as far as we want?	2.1 Exploring Shorter and Longer Distances	45 mins	Pushes, Pulls, & "Work Words" Mystery 2 Read Along: Why do builders need so many big machines?	45 mins
	2.2 Strong and Gentle Forces	45 mins		
	2.3 Designing a New Launcher	45 mins		
How do we make a pinball move to a certain place?	3.1 Movement in Different Directions	45 mins	Strength & Direction of Force Mystery 3: How can you knock down a wall made of concrete?	30 mins
	3.2 Building with Forces	45 mins		
	3.3 Direction and Strength	45 mins		
	3.4 Targets in the Box Model	50 mins		
	3.5 Applying Strength and Direction	40 mins		

Topic	Amplify Lessons	Duration	Mystery Science Lessons	Duration
How do we make a moving pinball change direction?	4.1 Changing Direction	45 mins	Speed & Direction of Force Mystery 4 Read Along: How can you knock down the most bowling pins?	45 mins
	4.2 Forces Change an Object's Direction	45 mins		
	4.3 Flippers and Bumpers	45 mins		
How can we make the pinball machine do all the things we want it to do?	5.1 Room 4 Solves a Problem	45 mins	Forces & Engineering Mystery 6 Read Along: How could you invent a trap?	45 mins
	5.2 Testing and Improving Our Box Models	45 mins		
	5.3 Showcasing Our Box Models	45 mins		
Where are forces around us?	6.1 Searching for Forces	45 mins	Direction of Motion & Engineering Mystery 5: How can we protect a mountain town from falling rocks?	45 mins
	6.2 A Busy Day in Pushville	45 mins		
	6.3 End-of-Unit Assessment	10 mins/ student		

Sunlight and Weather

Topic	Amplify Lessons	Duration	Mystery Science Lessons	Duration
What is the weather like on the playgrounds?	1.1 What is the Weather Like Today?	45 mins	Weather Conditions Mystery 1: Have you ever watched a storm?	45 mins
	1.2 Introducing Temperature	45 mins		
	1.3 Pre-Unit Assessment	45 mins	Observing & Asking Questions How do scientists know so much?	30 mins
	1.4 Weather & the Playgrounds	45 mins	Weather Forecasting & Seasonal Patterns Mystery 3: What will the weather be like on your birthday?	40 mins
Why do the playgrounds get warm?	2.1 Modeling the Sun Warming Earth's Surface	45 mins		
	2.2 Learning More About Models	45 mins		
	2.3 Investigating Sunlight on Earth's Surface	45 mins		
	2.4 Applying Sunlight Warming Earth's Surface	45 mins	Sunlight, Warming, & Engineering Mystery 5: How could you warm up a frozen playground?	35 mins
Why are the playgrounds warmer in the afternoon?	3.1 Getting Warm in the Sunlight	45 mins		
	3.2 Discussing Warming Over Time	45 mins	Local Weather & Patterns Mystery 4 Read Along: How do you know what to wear for the weather?	45 mins
	3.3 Showing Ideas About Warming Over Time	45 mins		
	3.4 Reflecting on Warming Through Time	45 mins		

Topic	Amplify Lessons	Duration	Mystery Science Lessons	Duration
Why is Woodland Elementary School's playground always warmer during recess?	4.1 Modeling Warming of Different Surfaces	45 mins		
	4.2 Reflecting on Warming of Different Surfaces	45 mins		
	4.3 Cool People In Hot Places	45 mins	Sunlight, Heat, & Earth's Surface Mystery 6 Read Along: How could you walk barefoot across hot pavement without burning your feet?	45 mins
	4.4 Revisiting Sunlight Warming Earth's Surface	45 mins		
Why does only Woodland Elementary School's playground flood?	5.1 Tornado! Predicting Severe Weather	45 mins	Mini-Lesson: Why are tornadoes so hard to predict?	5 mins
	5.2 Investigating With the Flooding Model	45 mins		
	5.3 Discussing the Flooding Models	45 mins		
	5.4 Investigating Flooding Solutions	45 mins		
	5.5 Reflecting on Weather & Sunlight	45 mins	Severe Weather & Preparation Mystery 2 Read Along: How can you get ready for a big storm?	45 mins
	5.6 End-of-Unit Assessment	10 mins/ student		

Animal and Plant Defenses

Topic	Amplify Lessons	Duration	Mystery Science Lessons	Duration
How does Spruce the Sea Turtle do what she needs to do to survive?	1.1 Pre-Unit Assessment	45 mins		
	1.2 Tortoise Parts	45 mins	Mini-lesson: Why do zebras have stripes?	5 mins
	1.3 Animal And Plant Structures	45 mins		
	1.4 Surviving by Not Being Eaten	45 mins		
	1.5 Explaining Sea Turtle Survival	45 mins		
How can Spruce the Sea Turtle survive where there are sharks?	2.1 Whose Lunch Is This?	45 mins		
	2.2 Sharp Structures for Eating	45 mins	Animal Structures & Survival Mystery 1: Why do birds have beaks?	40 mins
	2.3 Introducing Modeling	45 mins		
	2.4 Modeling Shells and Armor	45 mins		
	2.5 Modeling Spikes	45 mins		
	2.6 Modeling Camouflage	45 mins	Camouflage & Animal Survival Mystery 3: Why are polar bears white?	45 mins
	2.7 Explaining Defenses	45 mins	Mini-Lesson: Why are butterflies so colorful?	5 mins
	2.8 Defending the Food Supply	45 mins		

Topic	Amplify Lessons	Duration	Mystery Science Lessons	Duration
How can Spruce the Sea Turtle's offspring survive where there are sharks?	3.1 Introducing Offspring	45 mins	<i>Inheritance & Variation of Traits</i> Mystery 4 Read Along: Why do family members look alike?	45 mins
	3.2 Parents and Offspring	45 mins	<i>Animal Behavior & Offspring Survival</i> Mystery 2 Read Along: Why do baby ducks follow their mother?	25 mins
	3.3 Offspring Defenses	45 mins		
	3.4 Young Offspring	45 mins	Mini-Lesson: Why do baby animals look so cute?	5 mins
	3.5 Exploring Parental Care	45 mins	<i>Parenting & Offspring Survival and Inheritance & Variation of Traits</i> Mystery 2: Extension Activities	20 mins
How can aquarium scientists explain animal defenses to visitors?	4.1 Frog Models	45 mins	<i>Plant Survival & Engineering</i> Mystery 5: Why don't trees blow down in the wind?	60 mins
	4.2 Making Models for the Exhibit	45 mins		
	4.3 Aquarium Animal Exhibit	45 mins		
	4.4 End-of-Unit Assessment	10 mins/ student	<i>Plant Movement & Survival</i> Mystery 6: What do sunflowers do when you're not looking?	

Light and Sound

Topic	Amplify Lessons	Duration	Mystery Science Lessons	Duration
How do we make brighter or darker areas on a surface?	1.1 Pre-Unit Assessment	45 mins		
	1.2 Can You See in the Dark?	35 mins	Light & Illumination Mystery 4 Read Along: Can you see in the dark?	45 mins
	1.3 Light-Source Hunt	45 mins		
	1.4 Making Sense of Light Sources and Brightness	45 mins		
	1.5 Light Makes Surfaces Look Bright	45 mins		
How do we make a dark area in a bright puppet show scene?	2.1 Exploring Shadows	45 mins	Sun, Shadows, & Daily Patterns Mystery 1: Could a statue's shadow move?	40 mins
	2.2 What Made This Shadow?	45 mins		
	2.3 Investigating Blocking	45 mins	Light, Materials, Transparent & Opaque Mystery 3: What if there were no windows?	30 mins
	2.4 Designing a Cutout to Make a Dark Area	45 mins		
	2.5 Explaining the Dark Part of the Surface	45 mins		
How do we make bright, medium-bright, and dark areas in a puppet show scene?	3.1 Investigating Materials That Do Not Block	45 mins		
	3.2 Let's Test!	45 mins	Light, Communication, & Engineering Mystery 5: How could you send a secret message to someone far away?	45 mins
	3.3 Making Sense of Full and Partial Transmission	45 mins		
	3.4 Planning and Making Our Stencils	45 mins		
	3.5 Testing and Revising Our Solutions	45 mins		
	3.6 Explaining the Puppet-Show Scene	45 mins		

Topic	Amplify Lessons	Duration	Mystery Science Lessons	Duration
How do we design a sound source to go with a puppet show scene?	4.1 Exploring Sound Sources	45 mins	Sounds & Vibrations Mystery 1: How do they make silly sounds in cartoons?	30 mins
	4.2 What Vibrates?	45 mins		
	4.3 Explaining Vibration in Sound Sources	45 mins	Sounds & Vibrations Mystery 2 Read Along: Where do sounds come from?	45 mins
	4.4 Designing Sound Sources	45 mins	Lights, Sounds, & Communication Mystery 6 Read Along: How do boats find their way in the fog?	45 mins
	4.5 Sharing Light and Sound Solutions	45 mins		
	4.6 End-of-Unit Assessment		10 mins/ student	

Spinning Earth

Topic	Amplify Lessons	Duration	Mystery Science Lessons	Duration
Why did the sky look different to Sai than to his grandma?	1.1 Pre-Unit Assessment	45 mins		
	1.2 After Sunset	45 mins		
	1.3 The Pattern of Daytime and Nighttime	45 mins	Sun, Shadows, & Daily Patterns Mystery 1: Could a statue's shadow move?	40 mins
	1.4 The Sky From Different Places	45 mins		
	1.5 Explaining the Sky in Different Places	45 mins		
Why was it daytime for Sai when it was nighttime for his grandma?	2.1 Observing Earth From Space	45 mins		
	2.2 Daytime & Nighttime in Places on Earth	45 mins	Sun & Daily Patterns Mystery 3: How can the sun help you if you're lost?	35 mins
	2.3 Explaining Daytime & Nighttime	45 mins		
	2.4 Explaining Sai's Problem	45 mins		
Why did daytime change to nighttime while Sai talked on the phone?	3.1 Investigating the Sunset	45 mins		
	3.2 Observing the Horizon	45 mins	Sun, Shadows, & Daily Patterns Mystery 2 Read Along: What does your shadow do when you're not looking?	45 mins
	3.3 The Sun's Position in the Sky	45 mins		
	3.4 What Spins?	45 mins		
	3.5 What We See as Earth Spins	45 mins		
	3.6 Explaining Sunset to Sai	45 mins		

Topic	Amplify Lessons	Duration	Mystery Science Lessons	Duration
What will Sai see in the sky when he calls his grandma tomorrow?	4.1 Predicting Sun Patterns	45 mins		
	4.2 Nighttime Investigation	45 mins	Stars & Daily Patterns Mystery 5: Why do the stars come out at night?	40 mins
	4.3 Explaining the Sun's Repeating Pattern	45 mins	Sun & Daily Patterns Mystery 6 Read Along: How can sun help you if you get lost?	45 mins
	4.4 Explaining What Sai Will See	45 mins	Mini Lesson: Who created the constellations?	5 mins
Why was it nighttime for Sai when he called his grandma during the winter?	5.1 A Walk Through the Seasons	45 mins	Daylight & Seasonal Patterns Mystery 4 Read Along: Why do you have to go to bed early in the summer?	45 mins
	5.2 Exploring and Explaining Daylight in Different Seasons	45 mins		
	5.3 End-of-Unit Assessment	10 min/ student		

Plant and Animal Relationships

Topic	Amplify Lessons	Duration	Mystery Science Lessons	Duration
Why aren't new chalta trees growing in the Bengal Tiger Reserve?	1.1 Pre-Unit Assessment	60 mins		
	1.2 My Nature Notebook	55 mins	Biodiversity & Classification Mystery 1: How many different kinds of animals are there?	55 mins
	1.3 Investigating Habitats	60 mins	Adaptations & Habitat Mystery 5: Where do plants grow best?	45 mins
	1.4 Discovering the Problem in the Reserve	60 mins		
	1.5 What are Seeds?	60 mins		
	1.6 Investigating Seeds' Needs	60 mins		
	1.7 Explaining Why There Are No New Chalta Trees	60 mins		
Why aren't the chalta seeds getting the sunlight and water they need to grow?	2.1 . Exploring Plant Parts	60 mins		
	2.2 A Plant Is a System	60 mins	Light, Leaves & Competition Mystery 3: Why do trees grow so tall?	90 mins
	2.3 Investigating How Roots and Leaves Grow	60 mins		
	2.4 Finding a Good Place	65 mins	Adaptations & Habitat Mystery 4: Should you water a cactus?	45 mins
	2.5 Why Aren't New Chalta Trees Growing?	60 mins		

Topic	Amplify Lessons	Duration	Mystery Science Lessons	Duration
Why aren't the chalta seeds getting to places where they can grow?	3.1 Habitat Scientist	60 mins	Seed Dispersal Mystery 1: How did a tree travel halfway around the world?	50 mins
	3.2 Investigating How Seeds Move	60 mins		
	3.3 Investigating Seed Dispersal	60 mins	Seed Dispersal Mystery 1: Extension Activities	7 mins
	3.4 Diagramming a System	60 mins		
	3.5 Plant and Animal Interdependence	60 mins	Biodiversity, Habitats, & Species Mystery 2: Why do frogs say "ribbit"?	55 mins
	3.6 Explaining the Problem in the Reserve	60 mins		
How are other seeds in the reserve able to get to places where they can grow?	4.1 Investigating Seeds	60 mins	Biodiversity & Engineering Mystery 3: How could you get more birds to visit a bird feeder?	75 mins
	4.2 Planning the Seed Investigations	60 mins		
	4.3 Conducting the Seed Investigations	60 mins		
	4.4 End-of-Unit Assessment	60 mins		

Properties of Materials

Topic	Amplify Lessons	Duration	Mystery Science Lessons	Duration
How can you make a sticky glue?	1.1 Pre-Unit Assessment	60 mins		
	1.2 What If Rain Boots Were Made of Paper?	55 mins	Mini-Lesson: Why is it so hard to make new inventions?	35 mins
	1.3 Observing Properties of Glue	60 mins		
	1.4 Supporting Claims with Evidence	60 mins		
	1.5 Observing and Testing Ingredients	45 mins	Material Properties & Engineering Mystery 1: Why do we wear clothes?	55 mins
	1.6 Evaluating Sticky Test Evidence	60 mins		
	1.7 Jelly Bean Engineer	45 mins		
	1.8 Using Evidence to Plan Glues	60 mins		
	1.9 Making Our First Glue	60 mins		
Can heating a substance (and returning it to its original temperature) make a better glue?	2.1 Can You Change It Back?	60 mins	Classify Materials, Insulators, & Properties Mystery 2: Can you really fry an egg on a hot sidewalk?	50 mins
	2.2 Exploring Heating and Cooling	60 mins		
	2.3 Cause and Effect	50 mins	Heating, Cooling, & Phases of Matter Mystery 3: Why are so many toys made out of plastic?	55 mins
	2.4 Writing About Heating Ingredients	60 mins		

Topic	Amplify Lessons	Duration	Mystery Science Lessons	Duration
What ingredients can be used to make a glue that is sticky and strong?	3.1 Jess Makes Hair Gel	60 mins	<i>Inventions & Engineering</i> Mystery 4: What materials might be invented in the future?	45 mins
	3.2 Adding Strength as a Design Goal	60 mins		
	3.3 Evaluating Strength Test Evidence	60 mins		
	3.4 Writing Design Arguments	60 mins		
	3.5 Making Our Second Glue	60 mins		
What is the glue recipe that best meets our design goals?	4.1 Evaluating Second Glues and Revising Recipes	60 mins	<i>Materials, Properties, & Engineering</i> Mystery 5: Could you build a house out of paper?	50 mins
	4.2 Making Final Glues	60 mins		
	4.3 Mystery Mixtures	60 mins		
	4.4 End-of-Unit Assessment	60 mins		

Changing Landforms

Topic	Amplify Lessons	Duration	Mystery Science Lessons	Duration
How did the edge of the cliff get to be so close to the flagpole?	1.1 Pre-Unit Assessment	60 mins		
	1.2 Observations About Landforms	60 mins		
	1.3 Observing Sand Samples	60 mins	Rocks, Sand, & Erosion Mystery 2: Why is there sand at the beach?	55 mins
	1.4 Gary's Sand Journal	60 mins		
	1.5 Making Sense of Sand Samples	60 mins		
	1.6 Explaining Landform Changes	60 mins		
How did the recreation center's cliff change?	2.1 Diagramming Landform Changes	60 mins		
	2.2 Modeling Landform Changes	60 mins	Erosion, Earth's Surface, & Landforms Mystery 3: What's strong enough to make a canyon?	60 mins
	2.3 What's Stronger?	60 mins		
	2.4 Diagramming How a Landform Erodes	60 mins		
	2.5 Scale of Erosion	60 mins		
	2.6 Explaining How the Cliff Changed	55 mins		

Topic	Amplify Lessons	Duration	Mystery Science Lessons	Duration
How did the recreation center’s cliff erode without the director noticing?	3.1 Introduction to Maps	60 mins	<i>Mapping, Earth’s Surface, & Landforms Features</i> Mystery 1: If you floated down a river, where would you end up?	50 mins
	3.2 Investigating Differences in Scale	60 mins		
	3.3 Accumulation of Small Changes	60 mins		
	3.4 Landform Change Over Time	60 mins		
	3.5 End-of-Unit Assessment Part 1	55 mins		
Could the recreation center’s cliff erode quickly?	4.1 Exploring How Landforms Erode Quickly	60 mins	<i>Erosion & Engineering</i> Mystery 4: How can you stop a landslide?	55 mins
	4.2 Modeling How Landforms Erode Quickly	55 mins		
	4.3 Making Models of Streams	60 mins		
	4.4 Making Sense of How Landforms Erode Quickly	60 mins		
	4.5 End-of-Unit Assessment Part 2	60 mins		

Balancing Forces

Mystery Science: Invisible Forces

Topic	Amplify Lessons	Duration	Mystery Science Lessons	Duration
What can make an object move or not move?	1.1 Pre-Unit Assessment	40 mins	Back-to-School Special Mini-Lesson: How do Scientists Know So Much?	30 mins
	1.2 Making an Object Move	60 mins		
	1.3 Forces All Around	60 mins	Balanced & Unbalanced Forces Mystery 1: How could you win a tug-of-war against a bunch of adults?	65 mins
	1.4 Explaining Forces and the Train	60 mins	Balanced & Unbalanced Forces Mystery 1: Extension Video and Activities	varies based on selected activities
Why does the train rise without anything touching it?	2.1 Discovering Non-Touching Forces	60 mins		
	2.2 What Objects Do Magnetic Forces Act On?	60 mins	Magnets & Forces Mystery 4: What can magnets do?	40 mins
	2.3 Investigating Ways Magnetic Force Moves Objects	60 mins	Magnets & Forces Mystery 4: Extension Video and Activities	varies based on selected activities
	2.4 What My Sister Taught Me About Magnets	55 mins		
	2.5 Explaining Magnetic Force and the Train	60 mins		
	2.6 Modeling Camouflage	45 mins		

Topic	Amplify Lessons	Duration	Mystery Science Lessons	Duration
Why does the train fall?	3.1 Observing Evidence of Gravity	60 mins	Friction & Patterns of Motion Mystery 3: How can you go faster down a slide?	60 mins
	3.2 Reading About Gravity	60 mins		
	3.3 Observing Forces in Chain Reactions	60 mins	Friction & Patterns of Motion Mystery 3: Extension Video and Activities	varies based on selected activities
	3.4 Modeling and Explaining the Falling Train	60 mins		
Why does the train float, even though gravity is acting on it?	4.1 One Object, Two Forces	60 mins		
	4.2 Investigating Balanced Forces	60 mins	Balanced Forces & Engineering Mystery 2: What makes bridges so strong?	52 mins
	4.3 Explaining a Bridge	60 mins		
	4.4 Modeling and Explaining Balanced Forces	60 mins	Balanced Forces & Engineering Mystery 2 Extension Video and Activities	15–30 mins
Why does the train change from floating to falling?	5.1 Investigating Unbalanced Forces	60 mins	Magnets & Engineering Mystery 5: How can you unlock a door using a magnet?	50 mins
	5.2 Hoverboard	60 mins		
	5.3 Electromagnets and Predicting Patterns	60 mins	Magnets & Engineering Mystery 5: Extension Video and Activities	varies based on selected activities
	5.4 Modeling the Train	50 mins		
	5.5 End-of-Unit Assessment	60 mins		

Inheritance and Traits

Mystery Science: Power of Flowers

Topic	Amplify Lessons	Duration	Mystery Science Lessons	Duration
Why are wolves different even though they are all the same species?	1.1 Pre-Unit Assessment	60 mins		
	1.2 Blue Whales and Buttercups	60 mins	Pollination & Plant Reproduction Mystery 1: Why do plants grow flowers?	60 mins
	1.3 Observing Similarities and Differences	60 mins	Seed Dispersal & Plant Life Cycle Mystery 2: Why do plants give us fruit?	60 mins
	1.4 Introducing Species	60 mins		
	1.5 Variation in a Species	60 mins	Pollination & Plant Reproduction Mystery 1: Extension Activities	varies based on selected activities
	1.6 Making Sense of Variation	60 mins	Seed Dispersal & Plant Life Cycle Mystery 2: Extension Video	15 mins
	1.7 Explaining Variation	55 mins		
Why is Wolf 44's color similar to one pack but different from the other?	2.1 Asking Questions About Data	60 mins		
	2.2 Exploring Patterns	60 mins	Trait Variation, Inheritance, & Artificial Selection Mystery 3: Why are some apples red and some green?	60 mins
	2.3 The Code	60 mins		
	2.4 Exploring Inheritance	60 mins	Trait Variation, Inheritance, & Artificial Selection Mystery 3: Extension Activities	varies based on selected activities
	2.5 Making Sense of Inheritance	60 mins		
	2.6 Explaining Inheritance	60 mins		

Topic	Amplify Lessons	Duration	Mystery Science Lessons	Duration
Why isn't Wolf 44 like the Bison Valley Pack in hunting style and size?	3.1 Introducing Traits That Aren't Inherited	60 mins	Animals Groups & Survival Mystery 6: Why do dogs wag their tails?	45 mins
	3.2 How the Sparrow Learned Its Song	60 mins	Animals Groups & Survival Mystery 6: Extension Activities	varies based on selected activities
	3.3 Investigating What Determines Traits	80 mins	Animals Groups & Survival Mystery 6: Extension Video	5 mins
	3.4 The Role of the Environment	60 mins		
	3.5 Making Sense of Traits	60 mins	Animals Groups & Survival Mystery 4: Extension Video and Activities	varies based on selected activities
	3.6 End-of-Unit Assessment Part 1	60 mins		
How can scientists investigate questions about traits?	4.1 Scorpion Scientist	60 mins		
	4.2 End-of-Unit Assessment Part 2	60 mins		
	4.3 Investigating Sparrow Offspring	60 mins	Trait Variation, Inheritance, & Artificial Selection Mystery 4: How could you make the biggest fruit in the world?	55 mins

Environments and Survival

Mystery Science: Animals Through Time

Topic	Amplify Lessons	Duration	Mystery Science Lessons	Duration		
Why are the snails with yellow shells not surviving well?	1.1 Pre-Unit Assessment	60 mins	Habitats, Fossils, & Environments Over Time Mystery 1: Where can you find whales in the desert?	45 mins		
	1.2 Investigating Needs for Survival	60 mins				
	1.3 Earthworms Underground	60 mins	Fossil Evidence & Classification Mystery 2: How do we know what dinosaurs looked like?	45 mins		
	1.4 The Survival Model	60 mins				
	1.5 Writing an Explanation of Snails' Survival	60 mins				
Why are the snails with banded shells more likely to survive than the snails with yellow shells?	2.1 The Hummingbird Model	85 mins	Fossil Evidence, Trace Fossils, & Animal Behavior Mystery 3: Can you outrun a dinosaur?	45 mins		
	2.2 Mystery Mouths	60 mins				
	2.3 Investigating Traits and Survival	60 mins	Habitats, Fossils, & Environments Over Time Mystery 1: Extension Video"	10 mins		
	2.4 The Survival Model: Traits	55 mins				
	2.5 Making Sense of Traits and Survival	60 mins			Fossil Evidence & Classification Mystery 2: Extension Video	5 mins
	2.6 Writing About Snail Traits and Survival	45 mins				
			Trait Variation, Natural Selection, & Survival Mystery 5: Can selection happen without people?	40 mins		

Topic	Amplify Lessons	Duration	Mystery Science Lessons	Duration
Why were snails with yellow shells more likely to survive in their environment 10 years ago?	3.1 The Survival Model: Changing Environment	60 mins	<i>Animal Groups & Survival</i> Mystery 6: Why do dogs wag their tails?	45 mins
	3.2 Environment News	60 mins	<i>Environmental Change & Engineering</i> Mystery 7: What's the best way to get rid of mosquitoes?	60 mins
	3.3 Environmental Change and Adaptive Traits	60 mins	<i>Environmental Change & Engineering</i> Mystery 7: Extension Video and Activities	varies based on selected activities
	3.4 End-of-Unit Assessment Part 1	60 mins		
How can engineers use what they learn from organisms' traits to design solutions?	4.1 Cockroach Robots	60 mins	<i>Trait Variation, Inheritance, & Artificial Selection</i> Mystery 4: What kinds of animals might there be in the future?	45 mins
	4.2 Planning Designs	60 mins		
	4.3 Making and Testing Designs	60 mins	<i>Traits & Environmental Variations</i> Mystery 8: How long can people (and animals) survive in outer space?	65 mins
	4.4 End-of-Unit Assessment Part 2	60 mins		
	4.5 Presenting Design Arguments	60 mins	<i>Traits & Environmental Variations</i> Mystery 8: Extension Video and Activities	varies based on selected activities

Weather and Climate

Mystery Science: Stormy Skies

Topic	Amplify Lessons	Duration	Mystery Science Lessons	Duration
Which island's weather would be best for orangutans?	1.1 Pre-Unit Assessment	60 mins	Weather Conditions Mystery 1: Have you ever watched a storm?	15 mins
	1.2 Measuring Rainfall	60 mins	Water Cycle & Phases of Matter Mystery 1: Where do clouds come from?	50 mins
	1.3 Measuring Temperature	60 mins	Water Cycle & Phases of Matter Mystery 1: Extension Video and Activities	varies based on selected activities
	1.4 Sky Notebook	60 mins	Local Weather Patterns & Weather Prediction Mystery 2: How can we predict when it's going to storm?	50 mins
	1.5 Making Sense of Weather Data	60 mins	Local Weather Patterns & Weather Prediction Mystery 2: Extension Activities	varies based on selected activities
	1.6 Writing Island Arguments	60 mins		
Which island's weather will continue to be best for orangutans?	2.1 Introducing Line Plots	60 mins		
	2.2 Seeing the World Through Numbers	60 mins		
	2.3 Finding Ranges for Temperature Data	60 mins	Mini-Lesson: What is the coldest place on Earth?	5 mins
	2.4 Evaluating Island Weather Evidence	60 mins	Climate, Geography, & Global Weather Patterns Mystery 3: Why are some places always hot?	55 mins
	2.5 Revisiting Island Arguments	60 mins		

Topic	Amplify Lessons	Duration	Mystery Science Lessons	Duration
Over many years, which island’s weather will be best for orangutans?	3.1 Analyzing a Year of Data	60 mins		
	3.2 Discovering Climate Through Data	60 mins		
	3.3 Seasons and Climate	60 mins	Mini-Lesson: Why does it get cold in winter?	5 mins
	3.4 What's Going On with the Weather?	60 mins	Climate, Geography, & Global Weather Patterns Mystery 3: Extension Activities	varies based on selected activities
	3.5 Comparing Climates	60 mins		
	3.6 Evaluating Evidence About Climate	60 mins		
	3.7 End-of-Unit Assessment Part 1	60 mins		
How can the WPO prepare for natural hazards that might damage their offices?	4.1 Regional Climate Patterns	60 mins	Mini-Lessons: What makes hurricanes so dangerous? Why are tornadoes so hard to predict? What's worse: a hurricane or a tornado?	15 mins
	4.2 Dangerous Weather Ahead	60 mins	Natural Hazards & Engineering Mystery 4: How can you keep a house from blowing away in a windstorm?	55 mins
	4.3 Preparing for Natural Hazards	60 mins	Natural Hazards & Engineering Mystery 4: Extension Video and Activities	varies based on selected activities
	4.4 End-of-Unit Assessment Part 2	60 mins		

Energy Conversions

Mystery Science: Energizing Everything

Topic	Amplify Lessons	Duration	Mystery Science Lessons	Duration
What happened to the electrical system the night of the blackout?	1.1 Pre-Unit Assessment	60 mins		
	1.2 Introducing Systems	45 mins	Speed & Energy Mystery 1: How is your body similar to a car?	60 mins
	1.3 Exploring Systems	85 mins	Speed & Energy Mystery 1: Extension Video and Activities	varies based on selected activities
	1.4 Electrical Energy	60 mins	Collision & Energy Transfer Mystery 2: What makes roller coasters go so fast?	60 mins
	1.5 Forms of Energy	60 mins	Collision & Energy Transfer Mystery 2: Extension Video and Activities	varies based on selected activities
	1.6 Writing an Argument About the Blackout	60 mins		
What makes the devices in Ergstown output or fail to output energy?	2.1 Energy Converters	60 mins	Heat Energy & Energy Transfer Mystery 7: How long did it take to travel across the country before cars and planes?	60 mins
	2.2 Energy Past and Present	50 mins	Heat Energy & Energy Transfer Mystery 7: Extension Video and Activities	varies based on selected activities
	2.3 Energy in the System	60 mins	Renewable Energy & Natural Resources Mystery 8: Where does energy come from?	60 mins
	2.4 Design Arguments About Devices	60 mins	Renewable Energy & Natural Resources Mystery 8: Extension Video and Activities	varies based on selected activities

Topic	Amplify Lessons	Duration	Mystery Science Lessons	Duration
Where does the electrical energy for the devices in Ergstown come from?	3.1 Investigating Energy Sources	60 mins	Energy Transfer & Engineering Mystery 3: Why is the first hill of a roller coaster always the highest?	80 mins
	3.2 Converting Energy from Sources	60 mins		
	3.3 Sunlight and Showers	60 mins	Energy Transfer & Engineering Mystery 3: Extension Activity #2	20 mins
	3.4 Designing a Wind Turbine	60 mins	Energy Transfer & Engineering Mystery 4: Could you knock down a building using only dominos?	60 mins
	3.5 Redesigning Wind Turbines	60 mins	Energy Transfer & Engineering Mystery 4: Extension Video and Activities	varies based on selected activities
	3.6 Design Arguments About Converters	60 mins		
How does energy get to the devices all over Ergstown?	4.1 Blackout!	60 mins	Energy Transfer & Engineering Mystery 5: Can you build a chain reaction machine?	60 mins
	4.2 Investigating System Failure	60 mins		
	4.3 Improving the Electrical Grid	60 mins	Energy Transfer & Engineering Mystery 5: Extension Video and Activities	varies based on selected activities
	4.4 System Improvements	60 mins	Electrical Energy Mystery 6: What if there were no electricity?	60 mins
	4.5 Arguments for System Improvements	60 mins		
	4.6 End-of-Unit Assessment	60 mins		

Vision and Light

Mystery Science: Human Machine

Topic	Amplify Lessons	Duration	Mystery Science Lessons	Duration
How does a Tokay gecko get information about its environment?	1.1 Pre-Unit Assessment	60 mins	Halloween Special Mystery What would happen if you didn't have a skull?	45 mins
	1.2 Introducing Animal Senses	60 mins		55 mins
	1.3 Investigating Animal Senses	60 mins		varies based on selected activities
	1.4 Exploring How Animals Survive	60 mins		
How does light allow a Tokay gecko to see its prey?	2.1 Investigating Light	60 mins	Light, Eyes, & Vision Mystery 2: What do people who are blind see?	55 mins
	2.2 Modeling Ideas About Light	60 mins		
	2.3 I See What You Mean	60 mins	Light, Eyes, & Vision Mystery 2: Extension Video, Reading, and Activities	60 mins
	2.4 Reviewing Models About Vision and Light	60 mins		
	2.5 Explaining How Light Allows an Animal to See	60 mins		

Topic	Amplify Lessons	Duration	Mystery Science Lessons	Duration
How does a Tokay gecko know that it is looking at its prey?	3.1 Exploring Animal Eye Structures	60 mins	Structure & Function of Eyes Mystery 3: How can some animals see in the dark?	45 mins
	3.2 Crow Scientist	60 mins		
	3.3 Investigating Information Processing	65 mins	Structure & Function of Eyes Mystery 3: Extension Activity #2	20 mins
	3.4 Investigating How Animals React to Information	60 mins		
	3.5 Explaining How Animals Recognize Prey	60 mins		
How could more light at night make it hard for a Tokay gecko to see its prey?	4.1 Seeing Like a Shrimp and Smelling Like a Snake	60 mins	Mini-Lesson: Why do we have eyebrows?	5 mins
	4.2 Investigating What Different Animals See	60 mins	Brain, Nerves, & Information Processing Mystery 4: How does your brain control your body?	50 mins
	4.3 Investigating Receptor Sensitivity	60 mins		
	4.4 Preparing to Build a Model	60 mins	Brain, Nerves, & Information Processing Mystery 4: Extension Video and Activities	10 mins
	4.5 Arguments for System Improvements	60 mins		
	4.6 End-of-Unit Assessment	60 mins		

Earth's Features

Mystery Science: Birth of Rocks

Topic	Amplify Lessons	Duration	Mystery Science Lessons	Duration
How did the fossil get inside the rocky outcrop?	1.1 Pre-Unit Assessment	60 mins		
	1.2 Clues from the Past	60 mins	Volcanoes & Patterns of Earth's Features Mystery 1: Could a volcano pop up where you live?	55 mins
	1.3 Fossil Formation	60 mins		
	1.4 Sedimentary Rock Formation	60 mins	Volcanoes & Patterns of Earth's Features Mystery 1: Extension Video and Activities	varies based on selected activities
	1.5 Modeling Sedimentary Rock Formation	60 mins		
	1.6 Writing a Scientific Argument	60 mins		
What was the environment of Desert Rocks National Park like in the past?	2.1 Through the Eyes of a Geologist	60 mins	Volcanoes & Rock Cycle Mystery 2: Why do some volcanos explode?	55 mins
	2.2 Exploring Rock Formation and Environment	60 mins		
	2.3 Rock-Forming Environments	60 mins		
	2.4 Layers in a Rocky Outcrop	60 mins	Volcanoes & Rock Cycle Mystery 2: Extension Video and Reading	varies based on selected readings
	2.5 Making Inferences About Fossils	60 mins		
	2.6 Writing an Argument About Past Environment	60 mins		

Topic	Amplify Lessons	Duration	Mystery Science Lessons	Duration
What is the order of the past environments of Desert Rocks National Park?	3.1 Rock Layers	60 mins	<i>Weathering & Erosion</i> Mystery 3: Will a mountain last forever?	65 mins
	3.2 Ordering Rock Layers	60 mins		
	3.3 Arguing to Solve a Mystery	60 mins	<i>Weathering & Erosion</i> Mystery 3: Extension Video, Reading, and Activities	varies based on selected activities
	3.4 Environmental Change	60 mins		
	3.5 Students' Arguments	60 mins		
Why did more rock layers get exposed in Desert Canyon than Keller's Canyon?	4.1 Rocky Wonders	60 mins	<i>Erosion, Natural Hazards, & Engineering</i> Mystery 4: How could you survive a landslide?	45 mins
	4.2 Exposing Rock	60 mins		
	4.3 Modeling Erosion: Time	60 mins	<i>Erosion, Natural Hazards, & Engineering</i> Mystery 4: Extension Video, Reading, and Activities	varies based on selected activities
	4.4 Modeling Erosion: Speed	60 mins		
	4.5 Students' Arguments	60 mins		

Waves, Energy, and Information

Mystery Science: Waves of Sound

Topic	Amplify Lessons	Duration	Mystery Science Lessons	Duration
How does a mother dolphin communicate with her calf across a distance?	1.1 Pre-Unit Assessment	60 mins		
	1.2 Exploring Waves	60 mins	Sound, Vibration, & Engineering Mystery 1: How far can a whisper travel?	50 mins
	1.3 Warning: Tsunami!	60 mins		
	1.4 Warning: Tsunami!	60 mins	Sound, Vibration, & Engineering Mystery 1: Extension Video and Activities	varies based on selected activities
	1.5 Introducing Scientific Explanation	60 mins		
How does sound energy travel through water from a mother dolphin to her calf?	2.1 Sound on the Move	60 mins	Sound & Vibrations Mystery 2: What would happen if you screamed in outer space?	60 mins
	2.2 Visualizing How Sound Travels	60 mins		
	2.3 Investigating Particles	50 mins		
	2.4 Investigating Collisions	60 mins	Sound & Vibrations Mystery 2: Extension Video and Reading	varies based on selected readings
	2.5 Modeling Energy Transfer	60 mins		
	2.6 Explaining How Sound Energy Travels	60 mins		

Topic	Amplify Lessons	Duration	Mystery Science Lessons	Duration
How does a dolphin calf know which call is his mother's call?	3.1 Investigating Amplitude	60 mins	Mini-Lesson: Why do owls say "hoo"?	
	3.2 Investigating Wavelength	60 mins		
	3.3 How Sounds Can Differ	60 mins	Biodiversity, Habitats, & Species Mystery 2: Why do frogs say "ribbit"?	55 mins
	3.4 Seeing Sound	60 mins		
	3.5 The Scientist Who Cracked the Dolphin Code	60 mins		
	3.6 Discussing Dolphin Communication	60 mins	Biodiversity, Habitats, & Species Mystery 2: Extension Activities	varies based on selected activities
	3.7 Explaining How Dolphins Communicate	60 mins		
How can humans use patterns to communicate?	4.1 Human Communication	60 mins	Sound Waves & Wavelength Mystery 3: Why are some sounds high & some sounds low?	60 mins
	4.2 Patterns in Codes	60 mins		
	4.3 Communicating with Codes	60 mins	Sound Waves & Wavelength Mystery 3: Extension Video and Activities	varies based on selected activities
	4.4 End-of-Unit Assessment	60 mins		

Patterns of Earth and Sky

Mystery Science: Spaceship Earth

Topic	Amplify Lessons	Duration	Mystery Science Lessons	Duration
Why don't we see a lot of stars in the daytime?	1.1 Pre-Unit Assessment	60 mins	Spinning Sky Mystery 5: Why do the stars come out at night?	40 mins
	1.2 Earth and Stars in Space	60 mins	Star Brightness & Habitable Planets Mystery 8: Could there be life on other planets?	60 mins
	1.3 How Big Is Big? How Far Is Far?	60 mins		
	1.4 Distances to the Stars	60 mins	Star Brightness & Habitable Planets Mystery 8: Extension Activities	varies based on selected activities
	1.5 Investigating Size and Distance	60 mins	Mini-Lesson: Is Earth the only planet with life? and How close could an astronaut get to the Sun?	varies based on selected activities
	1.6 The Brightness of Starlight	60 mins	Gravity Mystery 7: Why is gravity different on other planets?	60 mins
	1.7 Explaining When We See Stars	60 mins	Gravity Mystery 7: Extension Video and Activities	varies based on selected activities

Topic	Amplify Lessons	Duration	Mystery Science Lessons	Duration
Why is the sun up sometimes, but not other times?	2.1 Observing Patterns	60 mins	Day, Night, & Earth's Rotation Mystery 1: How fast does the earth spin?	50 mins
	2.2 The Daily Pattern	60 mins		
	2.3 What We See as We Spin	60 mins	Day, Night, & Earth's Rotation Mystery 1: Extension Video and Activities	varies based on selected activities
	2.4 Which Way Is Up?	60 mins	Earth's Rotation & Daily Shadow Patterns Mystery 2: Who set the first clock?	45 mins
	2.5 How Does Up Change	80 mins ?		
	2.6 Explaining the Effects of Earth's Spin	60 mins	Earth's Rotation & Daily Shadow Patterns Mystery 2: Extension Video, Activities, and Game	varies based on selected activities

Topic	Amplify Lessons	Duration	Mystery Science Lessons	Duration
Why do we see different stars at different times of year?	3.1 Stars Through the Year	60 mins	Seasonal Changes & Shadow Length Mystery 3: How can the Sun tell you the season?	
	3.2 Modeling Earth's Orbit	60 mins		
	3.3 Seeing Stars for a Year	60 mins	Seasonal Changes & Shadow Length Mystery 3: Extension Activities and Reading	30 mins
	3.4 Dog Days of Summer	60 mins	Seasonal Patterns & Earth's Orbit Mystery 4: Why do the stars change with the seasons?	45 mins
	3.5 Modeling Constellations over Time	60 mins	Seasonal Patterns & Earth's Orbit Mystery 4: On-line Activities and Readings	varies based on selected activities
	3.6 End-of-Unit Assessment	60 mins		

Topic	Amplify Lessons	Duration	Mystery Science Lessons	Duration
How can we investigate why we see different stars on different nights?	4.1 Star Scientist	60 mins	<i>Moon Phases & Lunar Cycle</i> Mystery 5: How does the Moon change shape?	45 mins
	4.2 Planning Investigations	60 mins	<i>Moon Phases & Lunar Cycle</i> Mystery 5: Extension Activities and Animations	varies based on selected activities
	4.3 Students' Investigations of Constellations or Stars	60 mins	<i>Planets & Solar System</i> Mystery 6: What are the wandering stars? (with Extension Video and Activities)	varies based on selected activities

Modeling Matter

Mystery Science: Chemical Magic

Topic	Amplify Lessons	Duration	Mystery Science Lessons	Duration
Why did the food coloring separate into different dyes?	1.1 Pre-Unit Assessment	60 mins	Chemistry & Conservation of Matter Mystery 1: Are magic potions real?	50 mins
	1.2 Introducing Food Science	60 mins		
	1.3 Made of Matter	60 mins	Chemistry & Conservation of Matter Mystery 1: Extension Video and Activities	30 mins
	1.4 Separating a Food-Coloring Mixture	60 mins	Dissolving & Particulate Nature of Matter Mystery 2: Could you transform something worthless into gold?	
	1.5 Exploring Another Model of Chromatography	60 mins		55 mins
	1.6 Nanovision Models of Chromatography	60 mins	Dissolving & Particulate Nature of Matter Mystery 2: Extension Activities and Video	varies based on activities
	1.7 Break It Down	60 mins	Acids, Reactions, & Properties of Matter Mystery 3: What would happen if you drank a glass of acid?	60 mins
	1.8 Evaluating Chromatography Models	60 mins		
	1.9 Revising Chromatography Models	60 mins	Acids, Reactions, & Properties of Matter Mystery 3: Extension Activities	varies based on activities
	1.10 Explaining Chromatography	60 mins		

Topic	Amplify Lessons	Duration	Mystery Science Lessons	Duration
Why do some salad dressings have sediments, and others do not?	2.1 Investigating Flavor Ingredients	60 mins	Chemical Reactions Mystery 4: What do fireworks, rubber & Silly Putty have in common?	60 mins
	2.2 Investigating Dissolving	85 mins ?		
	2.3 Reading About Dissolving	60 mins	Chemical Reactions Mystery 4: Extension Reading	15 mins
	2.4 Models of Solubility	60 mins	Chemical Reactions Mystery 4: Extension Activities	varies based on activities
	2.5. Making Sense of Solubility	60 mins		
Why can salad-dressing ingredients separate again after being mixed?	3.1 Investigating Attraction	60 mins		
	3.2 Science You Can't See	60 mins	Gases & Particle Models Mystery 5: Why do some things explode?	45 mins
	3.3 Modeling Mixtures	60 mins		
	3.4 Investigating Emulsifiers	60 mins	Gases & Particle Models Mystery 5: Extension Readings	30–45 min
	3.5 Models of Emulsifiers	60 mins	Gases & Particle Models Mystery 5: Extension Discussion	15 mins
	3.6 Creating Digital Models of Emulsifiers	60 mins	Gases & Particle Models Mystery 5: Extension Activities	varies based on activities
	3.7 End-of-Unit Assessment	60 mins		

Earth System

Mystery Science: Watery Planet

Topic	Amplify Lessons	Duration	Mystery Science Lessons	Duration
Why is East Ferris running out of water while West Ferris is not?	1.1 Pre-Unit Assessment	60 mins	Hydrosphere & The Roles of Water Mystery 1: How much water is in the world?	55 mins
	1.2 Water Shortages, Water Solutions	60 mins		
	1.3 Explaining the East Ferris Water Shortage	60 mins	Hydrosphere & The Roles of Water Mystery 1: Extension Video and Activities	60 mins
Why does more rain form over West Ferris than East Ferris?	2.1 Investigating Water Drop Formation	55 mins	Groundwater as a Natural Resource Mystery 2: When you turn on the faucet, where does the water come from?	50 mins
	2.2 From Water Vapor to Liquid Water	60 mins		
	2.3 A Nanoscale View of Condensation	60 mins		
	2.4 Investigating Evaporation	60 mins		
	2.5. Drinking Cleopatra's Tears	60 mins		
	2.6 Explaining How Raindrops Form	60 mins		
	2.7 Designing Freshwater Collection Systems	60 mins		
	2.8 Engineering Clean Water	60 mins		
			Groundwater as a Natural Resource Mystery 2: Extension Video and Activities	60 mins
				varies based on selected activities

Topic	Amplify Lessons	Duration	Mystery Science Lessons	Duration
Why is more water vapor getting cold over West Ferris than East Ferris?	3.1 Investigating Attraction	65 mins	Water Cycle Mystery 3: Can we make it rain?	55 mins
	3.2 Making Sense of Where Raindrops Form	60 mins		
	3.3 Explaining Why It Rains	60 mins	Natural Disasters & Engineering Mystery 4: How can you save a town from a hurricane?	55 mins
	3.4 Iterating on Freshwater Collection Systems	60 mins		
Why is there more water vapor high up over West Ferris than East Ferris?	4.1 Investigating the Movement of Water Vapor	60 mins	Water Cycle Mystery 3: Extension Video, Activities, and Discussion	varies based on selected activities
	4.2 Investigating Rainfall Distribution	60 mins		
	4.3 End-of-Unit Assessment Part 1	60 mins		
How can East Ferris turn wastewater into clean freshwater?	5.1 Investigating Wastewater Treatment	60 mins	Chemical Magic Mystery 3: Extension Activities	varies based on selected activities
	5.2 Chemical Reactions Everywhere	60 mins		
	5.3 Chemical Reactions at the Nanoscale	60 mins		
	5.4 Controlling Chemical Reactions	60 mins		
	5.5 End-of-Unit Assessment Part 1	60 mins		
	5.6 Reflecting on Water Availability	60 mins		

Ecosystem Restoration

Mystery Science: Web of Life

Topic	Amplify Lessons	Duration	Mystery Science Lessons	Duration
Why aren't the jaguars and sloths growing and thriving?	1.1 Pre-Unit Assessment	60 mins		
	1.2 Introducing Ecosystems	60 mins	Food Chains, Predators, Herbivores, & Carnivores Mystery 1: Why would a hawk move to New York City?	50 mins
	1.3 Matter Makes It All Up	60 mins		
	1.4 Investigating How Animals Grow	60 mins	Food Chains, Predators, Herbivores, & Carnivores Mystery 1: Extension Readings and Discussion	varies based on selected readings
	1.5 Modeling How Animals Use Food Matter	60 mins		
	1.6 The Role of Food in an Ecosystem	60 mins	Food Chains, Predators, Herbivores, & Carnivores Mystery 1: Extension Activities	varies based on selected activities
	1.7 Modeling Food Webs	60 mins	Ecosystems & Matter Cycle Mystery 5: Why do you have to clean a fish tank but not a pond?	70 mins
	1.8 Arguments About Animals in the Ecosystem	60 mins		

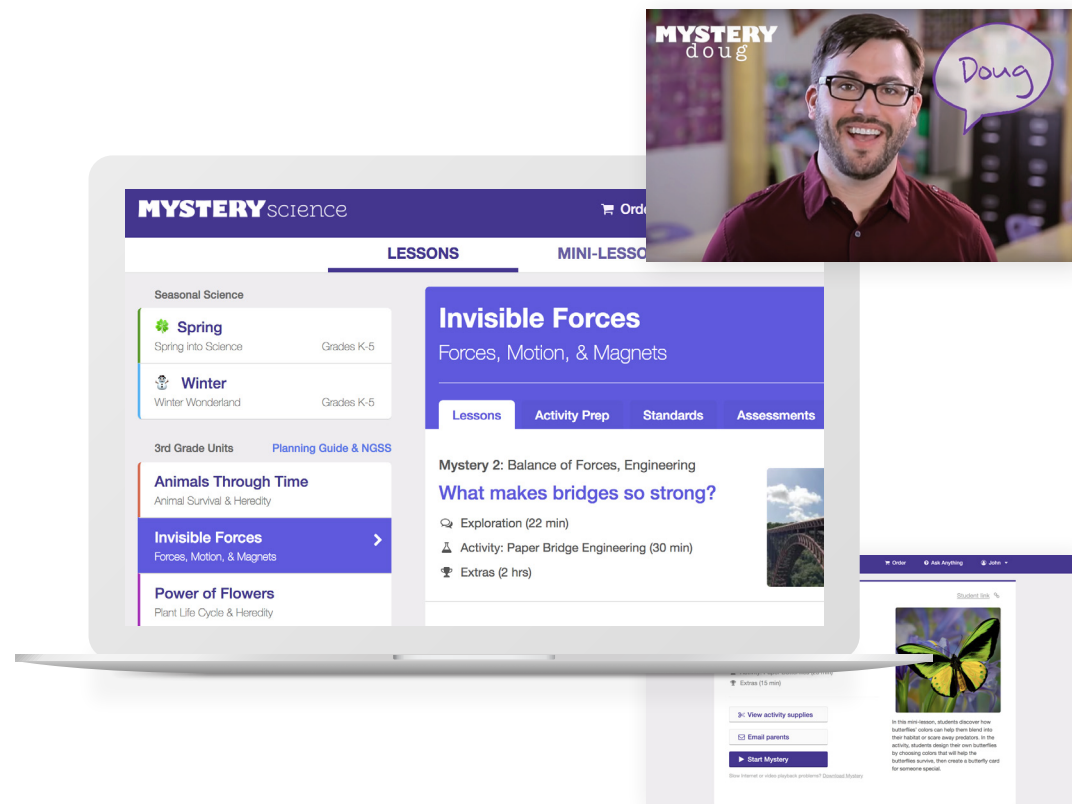
Topic	Amplify Lessons	Duration	Mystery Science Lessons	Duration
Why aren't the cecropia trees growing and thriving?	2.1 Even Plants Need Food	60 mins	Plant Needs: Air & Water Mystery 2: What do plants eat?	50 mins
	2.2 Energy Makes It All Go	60 mins		
	2.3 How Plants Make Food	60 mins	Plant Needs: Air & Water Mystery 2: Extension Video and Discussion	varies based on selected activities
	2.4 Claims and Evidence About Energy	60 mins	Plant Needs: Air & Water Mystery 2: Extension Activities	35 mins
	2.5 Energy in Ecosystems	60 mins	Ecosystems & Matter Cycle Mystery 5: Extension Activities	varies based on selected activities
	2.6 Why Do Scientists Argue?	60 mins		
Why aren't the cecropia trees growing and thriving in the soil?	3.1 Investigating Soil	60 mins	Decomposers & Matter Cycle Mystery 3: Where do fallen leaves go?	
	3.2 Walk in the Woods	60 mins		
	3.3 Differences in Soil	60 mins	Decomposers & Matter Cycle Mystery 3: Extension Video and Activities	varies based on selected activities
	3.4 Nutrients and Soil	60 mins	Decomposers, Nutrients, & Matter Cycle Mystery 4: Do worms really eat dirt?	65 mins
	3.5 Decomposers, Nutrients, and Ecosystems	60 mins	Decomposers, Nutrients, & Matter Cycle Mystery 4: Extension Video and Activities	varies based on selected activities
	3.6 Arguments About Soil in the Ecosystem	60 mins	Food Webs & Flow of Energy Mystery 6: Why did the dinosaurs go extinct?	50 mins
	3.7 End-of-Unit Assessment	60 mins	Food Webs & Flow of Energy Mystery 6: Extension Activities	varies based on selected activities

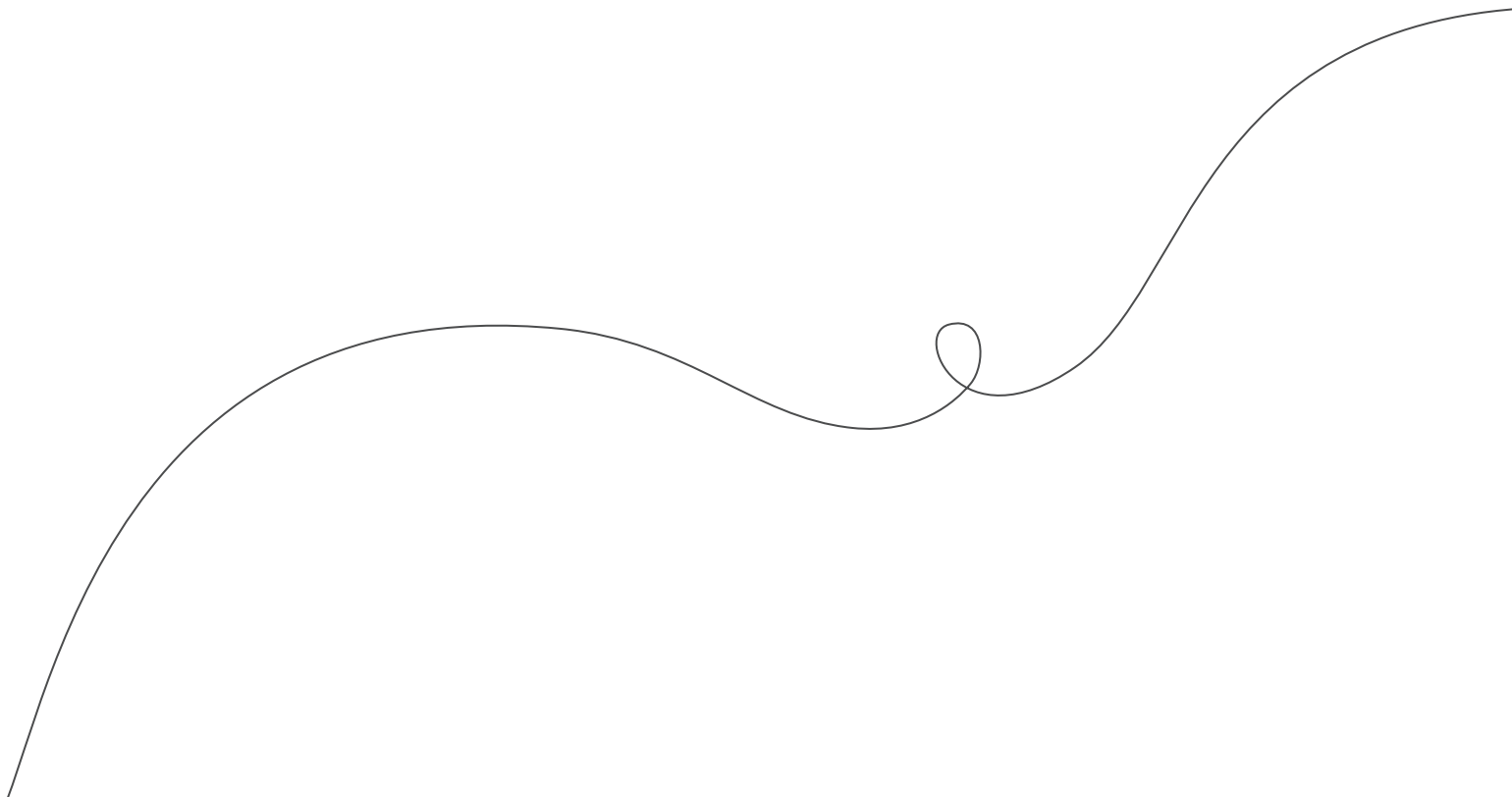
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