

**Lyndhurst School District
Elementary School Map**

2 nd Grade Science	Essential Questions	Concept/Content	Skills	Core Activities	Assessment
Standards: 5.1 A-D, 5.2 A,B					
September (Matter)	What is matter? What is a solid? What is a liquid? What is a gas?	Physical Properties of solids, liquids, and gases <u>Unit Vocabulary:</u> Matter, physical property, mass, atoms, states, solid, liquid, gas	<u>SWBAT:</u> Discover facts about matter and atoms. Identify properties of solids, liquids, and gases.	Hands on Activity: “Same Size, Same Shape” “Same Size, Different Shape” Demo: phases of matter Teacher generated materials <u>Integration of Technology</u>	Teacher observations Tests Lab activities

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October (Buoyancy)	Why do some things float? What objects sink? What objects float? Why do boats float?	Physical properties affect buoyancy <u>Unit Vocabulary:</u> Float, sink, buoyancy	<u>SWBAT:</u> Predict whether various objects will sink or float. Conclude that an object's physical properties affect its buoyancy. Infer why some liquids and gases can float.	Teacher Generated Activities "What sinks? What floats?" Hands On Activity: "Bubbles & Buoyancy" <u>Integration of Technology</u>	Teacher observations Tests Lab activities

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November (Using Your Senses)	What are the senses? What body systems correspond to each sense? How do the senses work together?	Sight Hearing Touch Smell Taste <u>Unit Vocabulary:</u> Senses, sight, hearing, touch, smell, taste, brain, iris, pupil, lens, retina, optic nerve, sound, vibrate, ear canal, eardrum, inner ear, auditory nerve, volume, pitch, touch, nerves, texture, nostrils, nasal cavity, olfactory nerve, taste buds	<u>SWBAT:</u> Define each of the senses. Identify the part of the body and system that corresponds with each of the senses.	Teacher generated materials and activities. Explore the senses <u>Integration of Technology</u>	Teacher observations Tests Lab activities

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December (Using Your Senses con't)	<p>How do we use our senses?</p> <p>Why do we need our senses?</p> <p>What happens if one of our senses malfunctions or is damaged?</p>	<p>Sight</p> <p>Hearing</p> <p>Touch</p> <p>Smell</p> <p>Taste</p> <p><u>Unit Vocabulary:</u> Senses, sight, hearing, touch, smell, taste, brain, iris, pupil, lens, retina, optic nerve, sound, vibrate, ear canal, eardrum, inner ear, auditory nerve, volume, pitch, touch, nerves, texture, nostrils, nasal cavity, olfactory nerve, taste buds</p>	<p>SWBAT: How do we use these senses?</p> <p>Why do we need our senses?</p> <p>What are the advantages and disadvantages of not having our senses work properly?</p>	<p>Teacher generated materials and activities.</p> <p>Research project on the senses</p> <p><u>Integration of Technology</u></p>	<p>Teacher observations</p> <p>Tests</p> <p>Lab activities</p>

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January (Force and Motion)	What is force? What is motion? What is energy?	Gravity Weight Direction Speed Distance Energy and Work <u>Unit Vocabulary:</u> Force, gravity, weight, friction, Motion, position, direction, distance, speed, work	SWBAT: Define what a force is. Discuss how force is related to work. Define and identify different types of forces. Discuss how changes in motion are caused by forces. Discuss what determines speed of an object	Teacher generated materials and activities. Hands-on activities: Race cars Determine different masses of objects <u>Integration of Technology</u>	Teacher observations Unit Tests Teacher generated quizzes

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February (Simple Machines)	What are simple machines? How does a waterwheel work? What is friction?	Levers Wheels & Axels Inclined planes Wedges Screws <u>Unit Vocabulary:</u> Machines, lever, pivots, fulcrum, effort, load, first class level, second class level, wheel and axel, wedge, screw, lubricant	<u>SWBAT:</u> Identify different simple machines and how they work. Explain how gravity and friction affect motion. Explain how moving water produces energy to cause motion	Teacher generated materials and activities. Build a simple machine <u>Integration of Technology</u>	Teacher observations Tests Lab activities

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Standards: 5.1 A-D, 5.3 A					
March (Plant and Animal Populations)	<p>What are some places plants and animals can live?</p> <p>What do plants and animals need to live?</p> <p>What is a population?</p>	<p>Plant and Animal Habitats</p> <p>Plant and Animal Populations</p> <p>Needs of Plants and Animals</p> <p><u>Unit Vocabulary:</u> Organisms, living, habitats, species, population, nutrients, adaptations</p>	<p>SWBAT: Define what an organism is.</p> <p>Define what constitutes a population.</p> <p>Discuss animal and plant populations and where they live.</p> <p>Discuss what plants and animals need to live.</p> <p>Discuss adaptations plants and animals have made in order to survive.</p>	<p>Teacher generated materials and activities</p> <p>“Plant and Animal Populations Kit”</p> <p><u>Integration of Technology</u></p>	<p>Teacher observations</p> <p>Tests</p> <p>Lab activities</p>

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Standards: 5.1-A-D, 5.2 C,D 5.3 B,C					
April (Plant and Animal Populations)	What is an ecosystem? What are predators and preys? What is a food chain?	Ecosystems Predators and Prey Food Chains Producers, Consumers, and Decomposers <u>Unit Vocabulary:</u> Community, living vs. non-living, ecosystem, interact, predator, prey, camouflage, mimicry, producers, consumers, decomposers	SWBAT: Define what an ecosystem is. Give examples of ecosystems. Define a community and give examples. Discuss living vs. non-living things. Discuss how organisms interact with their environment. Define what a predator and prey is and give examples. Explain how animals camouflage themselves for protection. Discuss mimicry and how animals use this adaptation to protect themselves. Discuss what a food chain is and give examples. Define what a producer, consumer, and decomposer is and their role in a food chain	Teacher generated materials and activities. “Plants and Animal Populations” Kit <u>Integration of Technology</u>	Teacher observations Tests Lab activities

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May (Classroom Plants)	What is a plant? What are the parts of a plant? What is the responsibility of each plant part? What is soil? Why do we need plants on Earth?	Compare the similarities and differences of different plants Functions of plant parts <u>Unit Vocabulary:</u> Plant, organism, humus, soil, mineral, life cycle, life span, reproduce, seedling, sprout, nutrients, root, stem, leaves, flower	<u>SWBAT:</u> Identify the names and functions of plant parts. Explain how the plant parts work together to help the plant survive and reproduce Examine the materials that make up soil. Infer what plants need in order to grow and survive. Discuss why plants are so important for all of the organisms on Earth to survive.	Teacher generated materials. Hands-on activities- “Plants in Our World” “What do plants need?” <u>Integration of Technology</u>	Teacher observations Tests Lab activities

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June Classroom Plants (con't)	What are plant life cycles? What are other ways new plants grow? Who is George Washington Carver?	Plant life cycles Students meet George Washington Carver Hydroponics <u>Unit Vocabulary:</u> carbon dioxide, chlorophyll, energy, oxygen, photosynthesis, respond, bud, conifer, petal, pollen, fruit, germinate, seed coat, bulb, cutting, tuber	SWBAT: Conclude that plants reproduce in different ways. Read about stages in the life cycle of a plant.	Teacher generated materials Activity- "New Plants from Old Parts" <u>Integration of Technology</u>	Teacher observations Tests Lab activities

