

Lowndes County Science Pacing Guide

MS Frameworks Pacing Guide Worksheet for Science

Grade Level: 1st
Grading Period: 1st – 9 Wks

Chapter/Unit	Lesson Topic	Objective Number	Approximate Days Needed	Suggested Teaching Strategies
	Inquiry	<p>1. Understand how to plan and carry out a simple scientific investigation.</p> <p>a. Demonstrate an understanding of a simple investigation by asking appropriate questions about objects, organism, and events. (DOK2)</p> <p>b. Compare, sort, and group objects according to their attributes. (DOK2)</p>	4 days	<ul style="list-style-type: none"> Using a touch box, students will touch object and answer questions about it by drawing questions from a bag about the objects properties. (shape, size, texture, use etc) Students will sort bags of classroom items by color, shape, size, use.
		<p>1. Understand how to plan and carry out a simple scientific investigation.</p> <p>d. Match a simple problem to a technological solution related to the problem. (DOK1)</p>	2 days	<ul style="list-style-type: none"> Students will be divided into teams and travel to science centers. Centers will have problems for students to solve: heavy objects to move, protection from bright light, uncomfortable room conditions, etc.
	Earth and Space Science	<p>4. Develop a understanding of the properties of Earth materials, objects in the sky, and changes in Earth and sky.</p> <p>a. Compare and classify Earth materials. (DOK1)</p> <ul style="list-style-type: none"> Physical attributes of rocks Physical attributes of soil. 	4 days	<ul style="list-style-type: none"> Teacher will read <u>Everybody Needs a Rock.</u> Charles Scribner, 1974 Students will bring in rocks from home or from outside and classify according to characteristics such as light, heavy, dark, light, crumbly, smooth, rough, etc The teacher will read book <u>Simon Underground</u>, Harper

		<p>1. Understand how to plan and carry out a simple scientific investigation.</p> <p>c. Use simple tools (hand lenses) to gather information</p>		<p>and Row, 1976</p> <ul style="list-style-type: none"> • The students will look at soil from different locations (garden, sand, topsoil, dirt from playground, etc.) with hand lens. • The students will observe smell, texture and color and to determine purpose of soil. • Dunn Seiler Museum, MSU offers rocks, fossils, and other geological pieces.
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Lowndes County Science Pacing Guide

MS Frameworks Pacing Guide Worksheet for Science

Grade Level: 1

Grading Period: 2nd– 9 Wks

Chapter/Unit	Lesson Topic	Objective Number	Approximate Days Needed	Suggested Teaching Strategies
	Earth and Space Science	<p>4. Develop a understanding of the properties of Earth materials, objects in the sky, and changes in Earth and sky.</p> <p>a. Compare and classify Earth materials. (DOK1)</p> <ul style="list-style-type: none"> • Physical attributes of rocks • Physical attributes of soil. <p>1.. Understand how to plan and carry out a simple scientific investigation.</p> <p>d. Use simple tools (hand lenses) to gather information</p>	4 days	<ul style="list-style-type: none"> • Teacher will read <u>Everybody Needs a Rock</u>. Charles Scribner, 1974 • Students will bring in rocks from home or from outside and classify according to characteristics such as light, heavy, dark, light, crumbly, smooth, rough, etc • The teacher will read book <u>Simon Underground</u>, Harper and Row, 1976 • The students will look at soil from different locations (garden, sand, topsoil, dirt from playground, etc.) with hand lens. • The students will observe smell, texture and color and to determine purpose of soil. • Dunn Seiler Museum, MSU offers rocks, fossils, and other geological pieces.

		<p>4. Develop a understanding of the properties of Earth materials, objects in the sky, and changes in Earth and sky. b. Identify Earth landforms and bodies of water (e.g. continents, islands, peninsulas, oceans, rivers, lakes, ponds, creeks) (DOK 1)</p>	2 days	<ul style="list-style-type: none"> • The students will compose a booklet or collage of different landforms and bodies of water. • Use maps and globes to find oceans, rivers, and landforms.
		<p>4. Develop a understanding of the properties of Earth materials, objects in the sky, and changes in Earth and sky. c. Observe, identify, record and graph daily weather conditions. 1. Understand how to plan and carry out a simple investigation. Use diagrams and written and oral expression to describe ideas or data.(DOK2)</p>	1 day (weather charting should be done daily)	<ul style="list-style-type: none"> • Read <u>Cloudy With a Chance of Meatballs</u> and discuss how weather affects us. • The students will chart the weather each morning, discussing weather conditions, proper attire. • Watch the weather on the evening local news and note forecasts
		<p>4. Develop a understanding of the properties of Earth materials, objects in the sky, and changes in Earth and sky. e. Collect, categorize, and display various ways energy from the sun is used. (DOK 2)</p>	3 days	<ul style="list-style-type: none"> • Read <u>The Sun</u>, Frank Asch, <u>Dining on a Sunbeam</u>, Busch, <u>Red Leaf</u>, <u>Green Leaf</u>, Ehlert • Take students outside to discuss feel of the sun and shadow. • Using 2 small plants, place one in window and one in dark closet to watch effect of light and darkness on plants.

		<p>4. Develop a understanding of the properties of Earth materials, objects in the sky, and changes in Earth and sky. f. Identify relationships between lights and shadows and illustrate how the shape of the moon changes over time.</p> <p>4. Develop a understanding of the properties of Earth materials, objects in the sky, and changes in Earth and sky. g. Distinguish characteristics of each season and describe how each season merges into the next. (DOK1)</p>	<p>3 days</p>	<ul style="list-style-type: none"> • <u>Moon Shadow</u>, Asch, <u>Bear Shadow</u>, Asch, <u>Shadows</u>, Poem The Moon is the North Wind's Cookie. • Use globe, flashlight, and ball to demonstrate shadow of the earth on the moon to demonstrate phases. • Draw phases of the moon. • <u>Read Seasons of Arnold's Apple Tree</u>, Gibbons, The Four Seasons and discuss changes, charting them. • Make a booklet of the apple tree showing the effects of each season. • Look in magazines for clothing worn in each season and make a chart. • www.brainpopjr.com/science/weather/seasons
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MS Frameworks Pacing Guide Worksheet for Science

Grade Level: 1

Grading Period: 3rd– 9 Wks

Chapter/Unit	Lesson Topic	Objective Number	Approximate Days Needed	Suggested Teaching Strategies
	Physical Science	<p>2. Develop an understanding of properties of objects and materials, position and motion of objects, and properties of heat and magnetism.</p> <p>a. Recognize that most things are made of parts.</p>	8 days	<ul style="list-style-type: none"> • <u>Simple Machines</u>, Hodge • Make a simple machine (toy paddle boat) using various parts. (milk carton, 2 pencils, rubber bands) and float in a tub of water. • Discuss what happens if the parts are not all there.
		<p>2. Develop an understanding of properties of objects and materials, position and motion of objects, and properties of heat and magnetism.</p> <p>b. Describe properties and changes of objects and materials. (DOK1)</p> <ul style="list-style-type: none"> • Process of melting and freezing 		<ul style="list-style-type: none"> • <u>Solids, Liquids, and Gases</u>, Ontario Science Center book p. 10 • Ice fishing – use ice cubes, water, string, and salt, Sprinkle salt on floating ice cubes. Put string into little pool of water that forms, It will freeze back and pick up ice cube with string. • Place cups of Kool-Aid into freezer with popsicle stick and freeze for students to eat next day.
		<ul style="list-style-type: none"> • How water evaporates and disappears into the atmosphere 		<ul style="list-style-type: none"> • <u>Read and discuss Magic School Bus at the Waterworks</u>, Cole • <u>Read Snowflake, A Water Cycle Story</u>, Waldman • Place cup of water in window seal and mark levels of evaporation each day.

		<ul style="list-style-type: none"> How water condenses onto cold surfaces. 		<ul style="list-style-type: none"> Place ice cubes in glass of water or beverage and watch water condense on side of glass.
		<p>2. Develop an understanding of properties of objects and materials, position and motion of objects, and properties of heat and magnetism.</p> <p>c. Describe the effects of various forms of motion and of forces on objects.(DOK1)</p> <ul style="list-style-type: none"> Different forms of motion.(sliding, rolling, straight line, circular, back and forth.) Effects that motion can produce (spilling, breaking, bending) 		<ul style="list-style-type: none"> Construct a vehicle with materials (milk carton, 2 pencils, and 4 thread spools. Use manual eggbeaters in a bowl of soapy water to show effect of spinning. Describe ways you moved that caused a spill or break of something.
		<p>2. Develop an understanding of properties of objects and materials, position and motion of objects, and properties of heat and magnetism.</p> <p>d. Differentiate between interactions of two magnets and the interaction of a magnet with objects made of iron, other metals, and nonmetals. (DOK!)</p>	2 days	<ul style="list-style-type: none"> Work in small groups. Give groups magnets and bags of items that are magnetic and nonmagnetic. Students try to pick up items with magnets and classify as magnetic or nonmagnetic. Give students magnets with north and south poles and have them explore with like and unlike poles.
		<p>2. Develop an understanding of properties of objects and materials, position and motion of objects, and properties of heat and magnetism.</p> <p>e. Describe changes in</p>	2	<ul style="list-style-type: none"> Place stick in ground (sundial) outside and notice changes of shadow as the day progresses. Play shadow tag. Use flashlight and hands on chalkboard to make different shadows and

		shadows over time and predict how a shadow will look as the light source moves. (DOK2)		move them.
		2. Develop an understanding of properties of objects and materials, position and motion of objects, and properties of heat and magnetism. f. Compare and classify solids and liquids. (DOK2)	3 day	<ul style="list-style-type: none"> • Use soda bottle, baking soda and vinegar, balloon to demonstrate gases. • Make rock candy. (Water, sugar, glass, pencil, cotton string. • Show pictures of solids, liquids, and gases and have students classify into groups. • Ice cream shows all forms as you eat it. Gas from evaporation, solid before you eat it, and melting in your mouth makes it liquid.
		2. Develop an understanding of properties of objects and materials, position and motion of objects, and properties of heat and magnetism. g. Identify vibrating objects that produce sound and classify sounds. (e.g. high or low pitched, loud or soft.(DOK1)	1 day	<ul style="list-style-type: none"> • Fill glass with water slowly, tapping as you do to notice how sound changes. • Make a box guitar. (Rubber bands and a small box.
	Life Science	3. Develop an understanding of the characteristics, structures, life cycles, interactions, and environments of organisms. b. Describe the primary function of the major body organs (brain, skin, heart, lungs, stomach, intestines, bones, muscles.) (DOK2)	10 days	<ul style="list-style-type: none"> • Read <u>Parts, Arnold, Magic School Bus in the Human Body. Bones, Sandeman</u> • View Slim Goodbody Videos. • Students draw their silhouette on large paper and cut out to place body organs on as each is discussed. • Blow up balloons to demonstrate function of

				<p>lungs.</p> <ul style="list-style-type: none"> • Listen to heart with stethoscope. Count beats per minute before and after exercising. • Use tube of water and turkey baster to demonstrate pumping of heart and blood. • Show a deer heart (can be frozen and thawed several times for extended use) • Small plastic skeletons to show bones.
		<p>3. Develop an understanding of the characteristics, structures, life cycles, interactions, and environments of organisms. c. Communicate the importance of food and how the body utilizes food.</p>	1 day	<ul style="list-style-type: none"> • Read <u>What Happens to A Hamburger.</u> • Students can chew crackers and write about what happens, (chew, salivation, swallow, digestion)

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MS Frameworks Pacing Guide Worksheet for Science

Grade Level: 1
Grading Period: 4th – 9 Wks

Chapter/Unit	Lesson Topic	Objective Number	Approximate Days Needed	Suggested Teaching Strategies
	Life Science	3. Develop an understanding of the characteristics, structures, life cycles, interactions, and environments of organisms. a. Classify animals and plants by observable features (e.g. Size, appearance, color, motion, habitat). (DOK2)	2 days	<ul style="list-style-type: none"> • Read <u>Can You Find Me?</u>, Dewey., <u>Biggest Strongest Fastest</u>, Jenkins • Chart animals and where they live. • Students collect pictures of different types of animal and sort. • Cut pictures out of magazine and classify by features.
		3. Develop an understanding of the characteristics, structures, life cycles, interactions, and environments of organisms. d. Chart and compare the growth and changes of animals from birth to adulthood.	3 days	<ul style="list-style-type: none"> • Students read <u>From Tadpole to Frog</u>, <u>The Ugly Duckling</u>, <u>Bambi</u>, <u>The Hungry Caterpillar</u>, Carle • Chart growth of a tadpole to frog. • Make a poster of life cycle of a butterfly. • Students bring baby pictures and discuss how they have grown
		3. Develop an understanding of the characteristics, structures, life cycles, interactions, and environments of organisms. e. Identify basic needs of plants and animals and recognize that plants and animals both need to take in water, animals need food and plants need light. (DOK1)	10 days	<ul style="list-style-type: none"> • <u>The Reason for A Flower</u>, Heller, <u>The Tiny Seed</u>, Carle • Venn diagram of plants and animals needs or likenesses and differences. • <u>Living Things</u>, Mason Tattoo a leaf by paper clipping child's initial to leaf and leaving it for a few days.

		<p>1. Understand how to plan and carry out a simple scientific investigation. f. Predict the results of an investigation if it is repeated</p>		
		<p>f Identify and label the parts of a plant. . (DOK2)</p>		<ul style="list-style-type: none"> • Read Life Cycle of a Bean, Tagliaferr. • Take a plant walk, find plants outside and identify parts. • Pick wildflowers or weeds and bring inside and use magnifying glass to find parts. • Soak lima beans overnight and students dissect and look at with magnifying lens. • Make poster of the inside of a seed.
		<p>1.Understand how to plan and carry out a simple scientific investigation. c. Use simple tools (e.g. rulers, scales, hand lenses, thermometers, microscopes) to gather information (DOK1)</p> <ul style="list-style-type: none"> • Length, using nonstandard units (e.g. paper clips, Unifix cubes, etc.) and standard units (inches and centimeters). 	5 days	<ul style="list-style-type: none"> • Use unifix cubes or nonstandard items (paper clips, crayons) to measure pencil. Then measure with ruler, compare and discuss the need for standard measurement. • Measure objects in inches and then with centimeters and compare. Discuss why measurements are different. • Use rulers to measure classroom items, growth of a plant. • Students make thermometer from paper and use it to show what the temperature might be in given situations, (at the beach, in snow)

		<ul style="list-style-type: none">• Weight, using a balance scale with and without nonstandard units.		<ul style="list-style-type: none">• Students will use a balance scale to compare classroom objects, first predicting which is heavier, lighter.
		<ul style="list-style-type: none">• Capacity, using nonstandard unit.		<ul style="list-style-type: none">• Fill pitcher with colored water. Students will fill various containers with water and compare to determine which holds most, least, same.