

Marietta City Schools Pacing Guide

Subject: Science

Grade Level: 6th Grade

Time Frame: Year Long

Month / Week	CCS Benchmarks	Skills/Activities	Resources	Assessment
August-May / June	<p>Literacy Skills</p> <ol style="list-style-type: none"> 1. Cite specific textual evidence to support analysis of science and technical texts. <hr/> <ol style="list-style-type: none"> 2. Determine the central ideas or conclusions of a text; provide an accurate summary of the text distinct from prior knowledge or opinions. <hr/> <ol style="list-style-type: none"> 3. Follow precisely a multistep procedure when carrying out experiments, taking measurements, or performing technical tasks. <p>CRAFT AND STRUCTURE</p> <ol style="list-style-type: none"> 4. Determine the meaning of symbols, key terms, and other domain-specific words and phrases as they are used in a specific scientific or technical context relevant to <i>grades 6-8 texts and topics</i>. 5. Analyze the structure an author uses to organize a text, including how the major sections contribute to the whole and to an understanding of the topic. 6. Analyze the author's purpose in providing an explanation, describing a procedure, or discussing an experiment in a text. 	Literacy Skills embedded through curriculum	Sciencea-z.com, printed materials, online materials, etc.	Tested; writing samples; short and extended response questions; reports, etc.

<p>1st Gr. Per. Thinking Like a 21st Century Scientist</p>	<p>INTEGRATION OF KNOWLEDGE AND IDEAS</p> <p>7. Integrate quantitative or technical information expressed in words in a text with a version of that information expressed visually (e.g., in a flowchart, diagram, model, graph, or table). 7.</p> <p>8. Distinguish among facts, reasoned judgment based on research findings, and speculation in a text. 8.</p> <p>9. Compare and contrast the information gained from experiments, simulations, video, or multimedia sources with that gained from reading a text on the same topic. 9.</p> <p>RANGE OF READING AND LEVEL OF TEXT COMPLEXITY</p> <p>10. By the end of grade 8, read and comprehend science/technical texts in the grades 6–8 text complexity band independently and proficiently. 10.</p> <p>*Identify questions that can be answered through scientific investigations *Design and conduct a scientific investigation * Use appropriate mathematics, tools, and techniques to gather data and information *Think critically and logically to connect evidence and explanations * Recognize and analyze alternative explanations and predictions * Communicate scientific procedures</p>	<p><u>August</u> Pretest</p> <p><u>September</u> *Intro of Interactive Science Notebook *Decision-making; data collection *Lab safety</p> <p>*Scale Drawing/ Diagrams</p> <p>*Scientific Method - Sink/Float experiment; Lab Report</p> <p>*Observation vs. Inference</p>	<p>Currently: SLO</p> <p>*Consensograms *Lab Safety Contracts; Lab Safety Jeopardy (on 6th Gr Science Weebly)</p> <p>*Scale drawing of classroom; Scale drawing on 6th Gr Science Weebly; “Metric Mishap Caused Loss of NASA Orbiter”; Scale Diagram video on 6th Gr. Science Weebly</p> <p>*Teacher created Lab Report; Bill Nye Video: Scientific Method (on 6th Gr. Science Weebly)</p> <p>*Sciencea-z.com; Observation and Inference Jeopardy (on 6th Gr.</p>	<p>*Pretest on standardized test adopted by district</p> <p>Project</p> <p>Lab Report</p>
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	<p>soils have common and practical uses.</p>	<ul style="list-style-type: none"> * Growing Crystals Lab * Crystal Shapes/Origami *Minerals: Moh's Hardness Scale *Rocks Introduction: Igneous *STEM Challenge: Boat Builders (Engineering/Lab) *Igneous Rock *Sedimentary Rock *Make a Fossil - students understand fossils from creating them December *Shake-a-Lake - Lab to simulate how Sedimentary Rock is formed *Metamorphic Rock 	<ul style="list-style-type: none"> *Interactive Sci Notebook; Crystal Cave video - 6th Gr. Sci Weebly *Moh's button on 6th Gr. Weebly; Moh's Hardness Scale vid. On 6th Gr Weebly(gemology.com); Minerals Jeopardy (T. made, on 6th Gr Science Weebly) * sciencea-z.com book; rocks chart (color copy from text); fact sheets; StudyJams (on 6th Gr. Sci Weebly); Cornell Notes *Igneous Rock Jeopardy (T made on 6th Gr. Sci Weebly) *Text (sciencea-z.com, T purchased); Video: Geology Kitchen (on 6th Gr. Sci Weebly); Fact Sheet; Sedimentary StudyJams on 6th Gr. Sci Weebly; Cornell Notes; T. made review board game *Metamorphic Rock Video (on 6th Gr. Sci Weebly); fact sheet; StudyJams button (on 6th Gr. Sci Weebly); Metamorphic Rock Video(on 6th Gr. Sci Weebly); Interactive Science Notebook; 	<ul style="list-style-type: none"> *Lab Report *w/s; Lab Report *Quiz *Formative Assessment *Test *Test *Test
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		<p>*Rock Cycle</p> <p>January</p> <p>*Soil Unit</p> <p>*Erosion</p>	<p>Cornell Notes; Magic School Bus video (on 6th Gr. Sci Weebly)</p> <p>*Text (sciencea-z.com; DoodleNotes)</p> <p>*Text (sciencea-z.com; foldables; StudyJams (on 6th Gr. Sci Weebly)/ Cornell Notes; T-made rev comic book</p> <p>Bill Nye/Erosion vid. (6th Gr. Sci Weebly)</p>	<p>Quiz</p> <p>*Test</p> <p>*Sci vid Report</p>
3rd Gr. Per.	<p>Matter and Motion</p> <p>*All matter is made up of small particles called atoms.</p> <p>*Changes of state are explained by a model of matter composed of atoms and/or molecules that are in motion</p> <p>*There are two categories of energy: kinetic and potential.</p> <p>*An object's motion can be described by its speed and the direction in which it is moving</p>	<p>January</p> <p>*Bill Nye/ States of Matter (Intro Video)</p> <p>*Matter</p> <p>*Dimitri's Table</p> <p>February</p> <p>*Elements</p> <p>*Atoms</p> <p>*Bill Nye/Atoms</p> <p>*Elements/Atoms</p> <p>*Experiment: Microwaving Ivory Soap (vibrating/expanding molecules)</p> <p>*Combining Matter</p>	<p>*Sci. Vid (on 6th Gr Weebly); Text: Mixing Matter (sciencea-z.com); Periodic Table of Elements (Interactive Science Notebook)</p> <p>*Booklet (sciencea-z.com)</p> <p>*Periodic Table of Elements</p> <p>Mixing Matter text (sciencea-z.com)</p> <p>*Video (located on 6th Gr Sci Weebly)</p> <p>*Sci vid: Dogs Teaching Atoms (located on 6th Sci Weebly); Cornell Notes</p> <p>*Support video (located on 6th Gr. Sci Weebly)</p> <p>*Text: Mixing Matter (sciencea-z.com)</p>	<p>*Sci vid Report</p> <p>*Formative Assesment; foldables;</p> <p>*Student made hallway Periodic Table of Elements</p> <p>*Your Name in Elements project</p> <p>*Student made model of a He atom</p> <p>*Sci Vid Report</p> <p>*Quiz</p> <p>*Lab Report</p>

	<p>*Experiment: Splitting Water (electrolysis and atoms)</p> <p>*Changing Matter; mini experiment</p> <p>*Chemical Change: 5 Main tips for identifying a chemical change</p> <p>*Mixing Solids and Liquids</p> <p>*Mixing Solids and Liquids: Suspensions</p> <p>*Mixing Liquids</p> <p>*Metric Mania: reviewing Mass, Density, and Volume</p> <p>*Mass, Volume, and Density Lab</p> <p>March</p> <p>*Mixing Matter Review & Assessment</p> <p>*Force and Motion Unit Intro</p> <p>*Bill Nye/ Motion</p> <p>*Experiment: Tower of Coins (Inertia and Friction)</p> <p>*Motion Needs a Force</p> <p>*The Laws of Motion; Newton Fact Sheet</p>	<p>*see Lab Report for materials</p> <p>*Text: Mixing Matter (sciencea-z.com);see text for lab materials</p> <p>*Foldable; Interactive Science Notebook</p> <p>*Text:Mixing Matter (sciencea-z.com)</p> <p>*Text: Mixing Matter (sciencea-z.com)</p> <p>*Text: Mixing Matter (sciencea-z.com)</p> <p>*Powerpoint (located on 6th Gr. Science Weebly)</p> <p>*See Lab for Materials</p> <p>*Cornell Notes; wordsearch (vocabulary); categories w/s;</p> <p>Text: Force and Motion (sciecea-z.com)</p> <p>*Sci Vid (located on 6th Gr Sci Weebly)</p> <p>*see Lab Report for materials</p> <p>Text: Force and Motion (sciencea-z.com)</p> <p>Text: Force and Motion (sciencea-z.com); fact sheet; Interactive Science Notebook</p>	<p>*Lab Report</p> <p>*Worksheet</p> <p>*Lab Report</p> <p>*Unit Test</p> <p>*Formative Assessment</p> <p>*Sci Vid Report</p>
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		*Newton's 1st Law of Motion	*Text: Force and Motion (sciencea-z.com); Sci Vid (located on 6th Gr. Sci Weebly)	*w/s
		*Newton's 2nd Law of Motion	*Text: Force and Motion(sciencea-z.com); Sci Vid (located on 6th Gr Sci Weebly); StudyJams.com (located on 6th Gr Sci Weebly); Activity button (located on 6th Gr Sci Weebly)	*w/s
		*Newton's 3rd Law of Motion	*Sci Vid (located on 6th Gr Sci Weebly); Text: Force and Motion (sciencea-z.com); StudyJams.com (located on 6th Gr. Sci Weebly)	*w/s
		*Experiment: Balloon Races (Newton's 3rd Law of Motion)	*see Lab Report for materials	*Lab Report
		*Newton's Laws of Motion Review/Test	*Cornell Notes	*Test
		*Sci Vid: Bill Nye/Energy (intro to Energy sources)	*Sci Vid (located on 6th Gr. Sci Weebly)	*Sci Vid Report
		*Types of Forces/ Career Files (Professional Athlete)	*Text: Force and Motion (sciencea-z.com); Career Files(sciencea-z.com); Interactive Science Notebook	
		*Friction	*Text: Force and Motion (sciencea-.com); w/s"May the Forces Be With You"	*w/s
	April	*Magnetism; Experiment: Make an Electromagnet	*Text: Force and Motion (sciencea-z.com); see Lab Report for materials for experiment	*Lab Report
		* Force, Motion, and Work	*Text: Force and Motion (sciencea-z.com)	
		*Energy (Potential &Kinetic)	*Text: Force and Motion	*w/s

		*Force and Motion Review/Unit Test	(sciencea-z.com); "Let's Get Moving" w/s *Cornell Notes	*Unit Test
4th Gr. Per.	Cellular to Multicellular *Cells are fundamental units of life. *All cells come from preexisting cells. *Cells carry on specific functions that sustain life. *Living systems at all levels of organization demonstrate the complementary nature of structure and function.	*Cells; rev. Questions *Cell Parts: Label/Color parts of cells (plant and animal) *Different Kinds of Cells; Tissues *Organs; Body Systems *Mission Control: The Nervous System; The Boss: The Brain *(week of Pro-core Assessment) *Sci Vid: Bill Nye/ Cells May *Cells Review/ Unit Test * Body Wars (Immune Systems)	*Text: Inside Living Things (sciencea-z.com); T made companion workbook *T. Made workbook *Text: Inside Living Things (sciencea-z.com); T. made companion workbook *Text: Inside Living THigns (sciencea-z.com); T made companion workbook(questions/ chart) *Text: Inside Living Things (sciencea-z.com); T made companion workbook (questions/ Chart) *Sci Vid (located on the 6th Gr Weebly) *"Cells, Cells" rap (located on 6th Gr Sci Weebly); "The Cell Song" (located on 6th Gr Sci Weebly); "Build A Cell" (activity button located on 6th Gr. Sci Weebly); "Label the Cell Parts" (Interactive activity button located on 6th Gr Sci Weebly) *Sci Vid: "NOAA Medicines from the Sea" (located on 6th Gr Sci Weebly); Sci Vid: "Cats, Kids, and Asthma" (located on 6th Gr Sci Weebly); Text: Inside Living Things	*workbook diagram Sci Vid Report *Cell Test

		<p>*Rivers of Nutrients (cell nutrition)</p> <p>*Genetics: Gregor Mendel; Studying Traits</p> <p>*Inside Living Things (Cellular to Multicellular) Review/ Unit Test</p> <p>*Microscope Study</p>	<p>(sciencea-z.com); T made companion workbook</p> <p>*Text: Inside Living Things (sciencea-z.com); T made companion workbook; Sci Vid: "Dolphins at the Dr." (located on 6th Gr. Sci Weebly)</p> <p>*Worksheet</p> <p>*Worksheets</p> <p>*Sci Vid: Microscope Parts and Function (located on 6th Gr. Sci Weebly); Microscope Parts diagram w/s; Sci Vid: Making a Wet/Dry Mount Slide (located on 6th Gr Sci Weebly); Virtual Labs: Using the Microscope (Interactive button located on 6th Gr. Sci Weebly); Microscopes/ Slides/Cover slips/ Methyl Blue stain</p>	<p>*worksheet</p> <p>*Unit Test</p> <p>*Microscope Test</p>