



5th Grade Science Pacing Guide 2017-2018

1st Nine Weeks

August 7, 2017 – October 6, 2017

Labor Day Holiday: September 4, 2017

Progress Reports Issued: September 7, 2017

1st 9 Weeks Assessments: October 3, 4, 5, & 6

Unit	Objective	Mississippi 5 th Grade Science Framework Objectives	Tentative teaching Date(s)
Scientific Inquiry	1b	1b. Distinguish between observations and inferences	Week 1 August 7-11, 2017
Scientific Inquiry	1c	1c. Use precise measurement in conjunction with simple tools and technology to perform tests and collect data <ul style="list-style-type: none"> • tools (rulers – [English and Metric], thermometers, scales, hand lenses, microscopes, balances, clocks, calculators, anemometers, rain gauges, barometers, hygrometers) • types of data (height, mass, volume, temperature, length, time, distance, volume, perimeter, area) 	Week 1 August 7-11, 2017
Scientific Inquiry	1d	1d. Organize and interpret data in tables and graphs to construct explanations and draw conclusions <ul style="list-style-type: none"> • circle, bar, and line graphs 	Week 2 August 14-18, 2017
Scientific Inquiry	1e	1e. Use drawings, tables, graphs, and written and oral language to describe objects and explain ideas and actions	Week 2 August 14-18, 2017
Physical Science	2a & 2f P.5.5A.1 P.5.5A.2 P.5.5A.3 P.5.5A.4 P.5.5A.5 P.5.5B.1 P.5.5B.2 P.5.5B.3 P.5.5B.4 P.5.5C.1 P.5.5C.2 P.5.5C.3	2a- Determine how the properties of an object affect how it acts and interacts. (DOK 2) 2f- Describe physical properties of matter including mixtures and solutions. (DOK 1) <ul style="list-style-type: none"> • Filtration, sifting, magnetism, evaporation, and flotation • Mass, density, boiling point, and freezing point of matter • Effects of temperature changes on the solubility of substances 	Week 3 August 21-25, 2017

	2b & 2f P.5.5A.1 P.5.5A.2 P.5.5A.3 P.5.5A.4 P.5.5A.5 P.5.5B.1 P.5.5B.2 P.5.5B.3 P.5.5B.4 P.5.5C.1 P.5.5C.2 P.5.5C.3	2b- Differentiate between elements, compounds, and mixtures and between chemical and physical changes. (DOK 2) 2f- Describe physical properties of matter including mixtures and solutions. (DOK 1) • Filtration, sifting, magnetism, evaporation, and flotation • Mass, density, boiling point, and freezing point of matter • Effects of temperature changes on the solubility of substances	Week 4 August 28- September 1, 2017
	2d	2d- Categorize examples of potential energy as gravitational, elastic, or chemical. (DOK 2)	Week 5 September 4-8, 2017
	2e	2e Differentiate between the properties of light as reflection, refraction, and absorption. (DOK 1) *Image reflected by a plane mirror and a curved-surfaced mirror *Light passing through air or water *Optical tools such as prisms, lenses, mirrors, and eyeglasses	Week 6 September 11-15, 2017
	2g	2g Categorize materials as conductors or insulators and discuss their real life applications (building construction, clothing, animal covering)	Week 7 September 18 - 22, 2017
	1b-1c- 1d-1e- 2a-2b-2d – 2e- 2f – 2g	Reviewing Multiple Skills 1b-1c-1d-1e-2a-2b-2d – 2e- 2f – 2g	Week 8 September 25 - 29, 2017
		Comprehensive 1st 9 Weeks Assessment	Week 9 October 2-6, 2017

2nd Nine Weeks

October 10, 2017 – December 20, 2017

Report Card Issued: October 12

Fall Break: October 9, 10

District Professional Development: October 10

Progress Reports Issued: November 9

Thanksgiving Holiday Break: November 20 – 24

Christmas Holiday Break: December 21-January 3, 2018

2nd 9 Weeks Assessments: December 18, 19, 20

Unit	Objective	Mississippi 5 th Grade Science Framework Objectives	Tentative teaching Date(s)
Scientific Inquiry	1a	1a. Form a hypothesis, predict outcomes, and conduct a fair investigation that includes manipulating variables and using experimental controls	Week 10 & Week 11 October 11-13, 2017
Scientific Inquiry	1c	1c. Use precise measurement in conjunction with simple tools and technology to perform tests and collect data <ul style="list-style-type: none"> • tools (rulers – [English and Metric], thermometers, scales, hand lenses, microscopes, balances, clocks, calculators, anemometers, rain gauges, barometers, hygrometers) • types of data (height, mass, volume, temperature, length, time, distance, volume, perimeter, area) 	Week 10 & Week 11 October 11-13, 2017
Scientific Inquiry	1d	1d. Organize and interpret data in tables and graphs to construct explanations and draw conclusions circle, bar, and line graphs	Week 10 & Week 11 October 11-13, 2017
Scientific Inquiry	1e	1e. Use drawings, tables, graphs, and written and oral language to describe objects and explain ideas and actions	Week 10 & Week 11 October 11-13, 2017
Scientific Inquiry	1f	1f. Make and compare different proposals when designing a solution or product	Week 10 & Week 11 October 11-13, 2017
Physical Science	2c P.5.6.1 P.5.6.2 P.5.6.3 P.5.6.4 P.5.6.5 P.5.6.6	2c- Investigate the motion of an object in terms of its position, direction of motion, and speed. (DOK 2) <ul style="list-style-type: none"> • The relative positions and movements of objects using points of reference • Force required to move an object using appropriate devices • Variables that affect speed • Effects of an unbalanced force on an object's motion in terms of speed and direction. 	Week 11 October 16-20, 2017
Life Science	3b L.5.3A.1 L.5.3A.2	3b. Research and classify the organization of living things <ul style="list-style-type: none"> • differences between plant and animal cells • function of the major parts of body systems 	Week 12 October 23-27, 2017

		(nervous, circulatory, respiratory, digestive, skeletal, muscular) and the ways they support each other examples of single-celled or multi-celled organisms	
Life Science	3c	3c. Research and cite evidence of the work of scientists (e.g. Pasteur, Fleming, Salk) – as it contributed to the discovery and prevention of disease.	Week 13 October 30- November 3, 2017
Life Science	3d	3d. Distinguish between asexual and sexual reproduction <ul style="list-style-type: none"> • asexual reproduction in plants and fungi (vegetative propagation, roots, leaves, budding, fruiting bodies in fungi) • asexual cell division (mushroom spores produced/dispersed) • sexual production (eggs, seeds, fruit) 	Week 14 November 6-10, 2017
Life Science	3e L.5.3B.2 L.5.3B.3 L.5.3B.4	3e. Give examples of how consumers and producers (carnivores, herbivores, omnivores and decomposers) are related in food chains and food webs.	Week 15 November 13-17, 2017
Life Science	3a L.5.3B.1	3a a. Compare and contrast the diversity of organisms due to adaptations to show how organisms have evolved as a result of environmental changes. (DOK 2) <ul style="list-style-type: none"> • Diversity based on kingdoms, phyla, and classes (e.g., internal/external structure, body temperature, size, shape) • Adaptations that increase an organism’s chances to survive and reproduce in a particular habitat (e.g., cacti needles/leaves, fur/scales) • Evidence of fossils as indicators of how life and environmental conditions have changed. 	Week 16 November 27- December 1, 2017
Life Science	3a L.5.3B.1	3a	Week 17 December 4-8, 2017
	1a-1f, 2c, 3a, 3b, 3c, 3d, and 3e	Reviewing Multiple Skills: 1a-1f, 2c, 3a, 3b, 3c, 3d, and 3e	Week 18 December 11 - 15, 2017
		Comprehensive 2nd 9 Weeks Assessment	Week 19 December 18-20 , 2017

3rd Nine Weeks
January 4, 2018 – March 9, 2018

Report Cards Issued: January 11

Dr. MLK Holiday: January 15

Progress Reports Issued: February 8

President's Day Holiday: February 19

3rd 9 Weeks Assessments: March 6, 7, 8, & 9

Unit	Objective	Mississippi 5 th Grade Science Framework Objectives	Tentative teaching Date(s)
Scientific Inquiry	1a	1a. Form a hypothesis, predict outcomes, and conduct a fair investigation that includes manipulating variables and using experimental controls	Week 20 & Week 21 January 8-12, 2018 January 15-19, 2018
Scientific Inquiry	1b	1b. Distinguish between observations and inferences	Week 20 & Week 21 January 8-12, 2018 January 15-19, 2018
Scientific Inquiry	1c	1c. Use precise measurement in conjunction with simple tools and technology to perform tests and collect data <ul style="list-style-type: none"> • tools (rulers – [English and Metric], thermometers, scales, hand lenses, microscopes, balances, clocks, calculators, anemometers, rain gauges, barometers, hygrometers) • types of data (height, mass, volume, temperature, length, time, distance, volume, perimeter, area) 	Week 20 & Week 21 January 8-12, 2018 January 15-19, 2018
Scientific Inquiry	1d	1d. Organize and interpret data in tables and graphs to construct explanations and draw conclusions <ul style="list-style-type: none"> • circle, bar, and line graphs 	Week 20 & Week 21 January 8-12, 2018 January 15-19, 2018
Scientific Inquiry	1e	1e. Use drawings, tables, graphs, and written and oral language to describe objects and explain ideas and actions	Week 20 & Week 21 January 8-12, 2018 January 15-19, 2018
Scientific Inquiry	1f	1f. Make and compare different proposals when designing a solution or product	Week 20 & Week 21 January 8-12, 2018 January 15-19, 2018
Scientific Inquiry	1g	1g. Evaluate results of different data (whether trivial or significant)	Week 20 & Week 21 January 8-12, 2018 January 15-19, 2018
Scientific Inquiry	1h	1h. Infer and describe alternate explanations and predictions	Week 20 & Week 21 January 8-12, 2018 January 15-19, 2018
Earth and Space Science	4a	4a. Categorize Earth's materials. (DOK 1) Rocks, minerals, soils, water, and atmospheric gases Layers of the atmosphere, hydrosphere, and lithosphere	Week 22 January 22-26, 2018
Earth and Space	4b	4b. Explain how surface features caused by	Week 23

Science		constructive processes (e.g., depositions, volcanic eruptions, earthquakes) differ from destructive processes (e.g., erosion, weathering, impact of organisms). (DOK 2)	January 29-February 2, 2018
Earth and Space Science	4d, 4g E.5.10.1 E.5.10.2	<p>4d. Describe changes caused by humans on the environment and natural resources and cite evidence from research of ways to conserve natural resources in the United States, including (but not limited to) Mississippi. Examples of Mississippi efforts include the following: (DOK 2)</p> <ul style="list-style-type: none"> • Associated Physics of America, a private company located in Greenwood, Mississippi, develops ways to convert a variety of agricultural products into efficient, environment-friendly and cost-effective energy sources. • The Natural Resource Enterprises (NRE) Program of the Department of Wildlife and Fisheries and the Cooperative Extension Service at MSU educate landowners in the Southeast about sustainable natural resource enterprises and compatible habitat management practices. • The Engineer Research and Development Center of the Vicksburg District of the U.S. Army Corps of Engineers provides quality engineering and other professional products and services to develop and manage the Nation’s water resources, reduce flood damage, and protect the environment. <p>4g. Categorize materials as conductors or insulators and discuss their real life applications (e.g., building construction, clothing, animal covering). (DOK 2)</p>	Week 24 February 5-9, 2018
Earth and Space Science	4e, 4f E.5.8A.1 E.5.8A.2 E.5.8A.3 E.5.8A.4 E.5.8B.1 E.5.8B.2 E.5.8B.3 E.5.8B.4	<p>4e. Differentiate between the properties of light as reflection, refraction, and absorption. (DOK 1)</p> <ul style="list-style-type: none"> • Image reflected by a plane mirror and a curved-surfaced mirror • Light passing through air or water • Optical tools such as prisms, lenses, mirrors, and eyeglasses <p>4f. Describe physical properties of matter (e.g., mass, density, boiling point, freezing point) including mixtures and solutions. (DOK 1)</p> <ul style="list-style-type: none"> • Filtration, sifting, magnetism, evaporation, 	Week 25 February 12-16, 2018

		<p>and flotation</p> <ul style="list-style-type: none"> • Mass, density, boiling point, and freezing point of matter • Effects of temperature changes on the solubility of substances 	
Earth and Space Science	4c	<p>4c. Summarize how weather changes. (DOK 2)</p> <ul style="list-style-type: none"> • Weather changes from day to day and over the seasons • Tools by which weather is observed, recorded, and predicted 	<p>Week 26 February 19-23, 2018</p>
Earth and Space Science	1a-1h, 4a, 4b, 4c, 4d, 4e, 4f, 4g	<p>Review of Multiple Skills: 1a-1h, 4a, 4b, 4c, 4d, 4e, 4f, and 4g</p>	<p>Week 27 February 26-March 2, 2018</p>
		Comprehensive 3rd 9 Weeks Assessment	March 6-9, 2018