

South Conway County School District
5th Grade Science Pacing Guide

Arkansas Curriculum Framework (SLE)	Learning Goal (Objective)	Assessment/Bloom's	Essential Vocabulary *teacher word (For Future Use)	Materials/Resources (For Future Use)
First Quarter				
PS 5.5.1	Identify the relationship of atoms to all matter	Knowledge		
NS 1.5.7	Summarize the characteristics of science	Comprehension		
NS 1.5.9	Define and give examples of hypotheses	Knowledge		
NS 1.5.8	Explain the role of observation in the development of a theory	Comprehension		
LS 2.5.1	Compare the cell theory to the characteristics of a scientific theory	Evaluation		
LS 2.5.2	Examine cells on a microscopic level	Analysis		
LS 2.5.4	Model and identify the parts of animal cells and plant cells: cell wall, cell membrane, nucleus, cytoplasm, and chloroplast	Application		
LS 2.5.3	Describe the similarities of basic cell functions in all organisms	Knowledge		
LS 2.5.5	Compare and contrast plant and animal cells	Evaluation		
LS 2.5.7	Identify the role of chlorophyll in the process of photosynthesis	Knowledge		
LS 2.5.8	Explain and illustrate photosynthesis	Comprehension		
LS 2.5.6	Conduct investigations to separate plant pigments from the cell	Synthesis		
LS 2.5.9	Explain cellular respiration	Comprehension		
LS 2.5.10	Conduct investigations demonstrating the process of cellular respiration	Synthesis		
LS 4.5.1	Distinguish among and model: organisms, populations, communities, ecosystems, and biosphere	Evaluation		
LS 4.5.5	Examine the role of limiting factors on the carrying capacity of an ecosystem: food, space, water, and shelter	Analysis		
LS 4.5.14	Categorize organisms by the function they serve in ecosystems and food webs: predator/prey, parasitism, producer/consumer/decomposer, scavenger, herbivore/carnivore/omnivore	Analysis		
LS 4.5.17	Describe and illustrate various symbiotic relationships: parasitism, mutualism, and commensalism	Comprehension		
LS4.5.15	Conduct field studies identifying and categorizing organisms in a given area of an ecosystem	Synthesis		
LS 4.5.11	Create ecosystems in which plants can exist without animals	Synthesis		
LS 4.5.12	Conduct investigations in which plants are encouraged to thrive	Synthesis		
LS 4.5.13	Construct, compare, and contrast environments in an open and closed aquaria	Evaluation		
LS 4.5.2	Identify the transfer of energy using energy pyramids: terrestrial and aquatic	Knowledge		
LS 4.5.3	Design food webs in specific habitats to show the flow of energy within communities: terrestrial and aquatic	Synthesis		

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LS 4.5.7	Describe and diagram the carbon cycle in ecosystems	Comprehension		
LS 4.5.6	Describe and diagram the nitrogen cycle in ecosystems	Comprehension		
LS 4.5.8	Describe and diagram the carbon dioxide- oxygen cycle in ecosystems	Comprehension		
LS 4.5.9	Conduct investigations demonstrating the role of the carbon dioxide-oxygen cycle in ecosystems	Synthesis		
LS 4.5.10	Analyze the concept of conservation of mass as related to the amount of matter in an ecosystem	Analysis		
LS 4.5.4	Evaluate food webs under conditions of stress: overgrazing, overpopulation ,natural disaster, introduction of nonnative species, and human impact/urban development	Evaluation		
LS 4.5.16	Evaluate positive and negative human effects on ecosystems	Evaluation		
LS 4.5.18	Investigate careers, scientists, and historical breakthroughs related to populations and ecosystems	Analysis		
LS 2.5.11	Investigate careers, scientists, and historical breakthroughs related to cells	Analysis		

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Second Quarter				
ESS 8.5.7	Identify characteristics of sedimentary, igneous, and metamorphic rocks	Knowledge		
ESS 8.5.9	Classify the three basic types of rocks	Analysis		
NS 1.5.1	Make accurate observations	Knowledge		
ESS 8.5.8	Compare and contrast by investigations characteristics of the three basic types of rocks: sedimentary, igneous, and metamorphic	Evaluation		
ESS 8.5.13	Describe and illustrate the rock cycle	Comprehension		
ESS 8.5.11	Investigate the formation of soil	Analysis		
ESS 8.5.12	Conduct investigations on sedimentation	Synthesis		
ESS 8.5.1	Identify some basic elements composing minerals: silicon, oxygen, iron, sodium, chlorine, calcium, carbon, hydrogen, and aluminum	Knowledge		
ESS 8.5.3	Identify characteristics of minerals	Knowledge		
ESS 8.5.4	Conduct investigations on mineral properties: luster, hardness, streak, acid test for calcite, and fluorescence	Synthesis		
ESS 8.5.5	Identify the following minerals: halite(salt), feldspar, sulfur, quartz, diamonds, gypsum, calcite, talc, hematite(iron), precious metals(gold and silver)	Knowledge		
ESS 8.5.6	Identify minerals found in Arkansas: bauxite, diamonds, quartz, and galena	Knowledge		
ESS 8.5.2	Investigate the growth of crystals	Synthesis		
ESS 9.5.1	Explain and give examples of how physical evidence from fossils supports the theory that Earth has changed over time	Comprehension		
ESS 9.5.2	Analyze fossil record evidence about plants and animals that lived long ago	Analysis		
ESS 9.5.3	Infer the nature of ancient environments based on fossil record evidence	Analysis		
ESS 10.5.2	Demonstrate the order of planets and other space objects in our solar system	Application		
ESS 10.5.3	Compare the properties of planets in our solar system: size, shape, density, atmosphere, distance from the sun, orbital path, moons, surface, and composition	Evaluation		
ESS 10.5.1	Compare the physical characteristics of the sun to other stars: size, color, and brightness	Evaluation		
ESS 10.5.4	Distinguish between mass and weight	Comprehension		
ESS 10.5.5	Compare the human body's mass to weight on Earth, the moon, and other planets in our solar system	Evaluation		
ESS 8.5.10	Investigate careers, scientists, and historical breakthroughs related to minerals and rocks	Analysis		
ESS 10.5.6	Investigate careers, scientists, and historical breakthroughs related to planets	Analysis		

Third Quarter

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PS 5.5.6	Explain how heat influences the states of matter of a substance: solid, liquid, gas, and plasma	Comprehension		
PS 5.5.8	Model the motion and position of molecules in solids, liquids, and gases in terms of kinetic energy	Application		
PS 5.5.9	Conduct investigations demonstrating expansion and contraction	Synthesis		
PS 5.5.3	Identify common examples of physical properties: length, mass, area, perimeter, texture, taste, odor, color, elasticity	Knowledge		
PS 5.5.4	State characteristics of physical changes	Knowledge		
PS 5.5.7	Demonstrate the effects of changes in the physical properties of matter	Application		
PS 5.5.2	Conduct scientific investigations on physical properties of objects	Synthesis		
PS 5.5.5	Identify characteristics and common examples of physical changes	Knowledge		
PS 7.5.1	Summarize how light can interact with matter through absorption, refraction, and reflection	Evaluation		
PS 7.5.2	Investigate how light travels and interacts with an object or material	Application		
PS 7.5.3	Conduct investigations demonstrating how an object can be seen	Synthesis		
PS 7.5.4	Design and conduct investigations of transparent, translucent, and opaque as applied to light	Synthesis		
PS 7.5.5	Investigate physical interactions of light and matter and the effect on color perception: refraction, absorption, transmission, and scattering	Application		
PS 6.5.4	Compare and contrast potential energy and kinetic energy as applied to motion	Evaluation		
PS 6.5.5	Classify real world examples as potential energy or kinetic energy as applied to motion	Application		
PS 6.5.6	Conduct investigations using potential energy and kinetic energy	Synthesis		
PS 6.5.1	Classify simple machines	Application		
PS 6.5.2	Conduct investigations using : levers, pulleys, inclined planes, wedges, screws, and wheels and axles	Synthesis		
PS 6.5.3	Relate simple machines to inventions and discoveries	Comprehension		
PS 6.5.7	Investigate careers, scientists, and historical breakthroughs related to simple machines and potential and kinetic energy	Analysis		
PS 5.5.10	Investigate careers, scientists, and historical breakthroughs related to physical properties, physical changes, and states of matter	Analysis		
PS 7.5.6	Investigate careers, scientists, and historical breakthroughs related to light energy	Analysis		

Forth Quarter

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