4th Grade Science Instructional Guide

Grade Level: Fourth Grade Subject: Science School System: Pickens County
School Year: 2011-2012

Time Period (Pacing – when)	State Assessment Correlations	Standards/ Components (Pacing – what	Resources/ Activities (Pacing – how) Curricular Alignment	Date of Common Formative Assessment (Pacing – how well)	Mapping Comments (What works what needs adjustment)
1st Six Weeks	Alabama Science Assessment: Grade Five Content Standard 7 Identify and describe the functions of nucleus, cytoplasm, cell membrane and animal and plant cell graphics.	4.5. 1.a Describe the interdependence of plants 4.5. 1.b. Describe the interdependence of animals. 4.5. B.1. Describing behaviors and body structures that help animals survive in particular habitats. Ex. Behaviors- migration, hibernation, mimicry Body structures- quills, fangs, stingers, webbed feet 4.5. B.2. Describing life cycles of various animals to include incomplete and complete metamorphosis Ex. Damsel fly, mealworms 4.5. B.3. Tracing the flow of energy through a food chain Ex. Producer, first-level consumer, second-level consumer, and third-level consumer 4.5. B.4. Identifying characteristics of organisms, including growth and development, reproduction, acquisition and use of energy, and response to the	Scott Foresman Science Book; Ch.1 & 2; Appropriate Workbook Pgs.; Hands- On Activities; Holt Science Books; Ch. Vocabulary Appropriate ARI Strategies Provide scaffold instruction, activate prior knowledge, use graphic organizers		

		environment.			

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2nd Six Weeks	Alabama Science Assessment: Grade 5 Content Standard 7 & 9 Identify and describe the function of chloroplasts and cell wall. Describe relationships between consumers, and producers; relationships between population, and community within a habitat.	4.6. B.1. Describing the organization of cells into tissues, organs, and organ system 4.6. B.2. Describing the grouping of organisms into populations, communities, and ecosystems 4.6. B.3. Classifying common organisms into kingdoms, including Animalia, Plantae, Protista, Fungi, Archaebacteria, and Eubacteria	Scott Foresman Science Book; Ch. 3 & 4; Appropriate Workbook Pgs.; Hands- On Activities; Holt Science Books; Ch. Vocabulary Appropriate ARI Strategies Provide scaffold instruction, activate prior knowledge, use graphic organizers		

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3rd Six Weeks		4.1. a. Describe how electrical circuits can be used to produce light and heat. 4.1. B. 1. Identifying components of a circuit 4.1. B.2.a. Identifying characteristics of parallel circuits 4.1. B.2.b. Identifying characteristics of series circuits 4.1. B.3.a. Classifying materials as conductors of electricity and heat 4.1. B.3.b. Classifying materials as nonconductors of electricity and heat 4.1. B.3.c. Classifying materials as insulators of electricity and heat 4.1. B.4. Identifying relationships among charge, current, and potential energy 4.1. B.5. Identifying ways to use and conserve electrical energy	Scott Foresman Science Ch.12 & 13; Leveled Readers and Leveled Practice; Directed Inquiry Activities; Workbook Pages: 117-125; Hands- On Activities; Alabama Power Representative; Holt Science Books; Ch. Vocabulary; Appropriate ARI Strategies Provide scaffold instruction, activate prior knowledge, use graphic organizers		

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3rd Six Weeks		4.4. B.1. Identifying momentum as property of moving objects 4.4. B.2. Identifying inertia as property of moving objects 4.4. B.3. Identifying ways to increase or decrease friction	Scott Foresman Science Book; Ch. 15; Appropriate Workbook Pgs.; Hands- On Activities; Holt Science Books; Ch. Vocabulary Appropriate ARI Strategies Provide scaffold instruction, activate prior knowledge, use graphic organizers		

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4th six Weeks		4.2.1. a. Compare different pitches of sound (size, tension, and amount). 4.2. 1. b. Compare vibrations of sound by material 4.2. B.1. Describing the relationship between the structure of the ear and hearing	Scott Foresman Science Ch. 14; Leveled Readers and Leveled Practice; Directed Inquiry Activities; Workbook Pages 129-136 Hands- On Activities; Holt Science Books; Ch. Vocabulary Appropriate ARI Strategies Provide scaffold instruction, activate prior knowledge, use graphic organizers		

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4th Six Weeks	Alabama Science Assessment Content Standard 4 & 5 Describe the forms of energy. Contrast ways in which light rays are bent by concave and convex lenses.	4.3.1. a Recognize how light interacts with transparent materials. Ex. Transparent- most light passes through 4.3.1.b . Recognize how light interacts with translucent materials. Ex. Translucent- some light passes through 4.3.1.c Recognize how light interacts with opaque materials. Ex. Opaque- no light passes through 4.3. B.1. Predicting the reflection of light by various objects. 4.3. B.2. Predicting the absorption of light by various objects.	Scott Foresman Science Ch. 14; Appropriate Workbook Pgs. Hands- On Activities; Holt Science Books; Ch. Vocabulary Appropriate ARI Strategies Provide scaffold instruction, activate prior knowledge, use graphic organizers		

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5th Six Weeks		4.7 Describe geological features of Earth, including bodies of water, beaches, ocean ridges, continental shelves, plateaus, faults, canyons, sand dunes, and ice caps.	Scott Foresman Science Book; Partial coverage in Ch. 6 Lesson 1, & Ch. 9; Appropriate Workbook Pgs.; Hands-On Activities; Holt Science Books; Ch. Vocabulary; Appropriate ARI Strategies Partial Coverage Provide scaffold instruction, activate prior knowledge, use graphic organizers		

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5th Six Weeks		4.8. B.1. Listing highlights of space exploration, including satellites, manned moon missions, the unmanned Mars mission, and an inhabited space station 4.8. B.2. Identifying Alabama's contribution to the space industry	Scott Foresman Science Book; Ch. 19; Appropriate Workbook Pgs.; Hands- On Activities; Holt Science Books; Ch. Vocabulary; Appropriate ARI Strategies Provide scaffold instruction, activate prior knowledge, use graphic organizers		

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6th Six Weeks	Alabama Science Assessment Content Standard 11 & 6 Compare distances from Sun to planets in our solar system. Compare effects of gravitational force on Earth, on the Moon, and within space.	4.9. 1.a. Describe the appearance and movement of Earth. 4.9. 1.b. Describe the appearance and movement of its moon. 4.9. B.1. Identifying the waxing and waning of the moon in the night sky 4.9. B.2. Identifying lunar eclipse 4.9. B.3. Identifying solar eclipse	Scott Foresman Science Book; Ch. 17- Part of 18; Appropriate Workbook Pgs.; Hands- On Activities; Holt Science Books; Ch. Vocabulary; Appropriate ARI Strategies Provide scaffold instruction, activate prior knowledge, use graphic organizers		

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6th Six Weeks	Alabama Science Assessment Content Standard 4, 6 & 11 Describe the forms of energy. Contrast ways in which light rays are bent by concave and convex lenses. Compare distances from Sun to planets in our solar system.	4.10. Describe components of our solar system B.1 Defining comets, asteroids, and meteor	Scott Foresman Science Book; Ch. Partial 18; Appropriate Workbook Pgs.; Hands- On Activities; Holt Science Books; Ch. Vocabulary; Appropriate ARI Strategies Provide scaffold instruction, activate prior knowledge, use graphic organizers		