## Instructional Guide

Grade Level \_<u>Fifth Grade</u>\_

Subject <u>Science</u>

School System Pickens County

School Year <u>2011-2012</u>

Time Period (Pacing – when)	ARMT/AHSGE Correlations	Standards/ Components (Pacing – what)	Resources/ Activities (Pacing – how) Curricular Alignment	Date of Common Formative Assessmen t (Pacing – how well)	Mapping Comments (What works what needs adjustment)
1st Six Weeks	AHGE # 9 Identify cell structures including cell membrane, cell wall, nucleus, vacuole, chloroplast and mitochondrion	<ul> <li>5.7. a. Identify common parts of plant and animal cells, including the nucleus, cytoplasm and cell membrane.</li> <li>5.7. B.1. Comparing unicellular and multi-cellular organisms</li> <li>5.7. B.2. Comparing plant and animal cells</li> </ul>	Scott Foresman, Pg. 372-385 AMSTI Globe Buckle Down Activity Flip Chart Workbooks Experiment Boxes Science AR Books Internet – SF successnet.com		
	AHGE # 5 Identify the levels of organization in the biosphere including cells, tissues, organs, organs system and ecosystems	5.8. a. Identify major body systems and their functions of the circulatory system.	Scott Foresman Pg. 63-69 AMSTI-Ecosystems-Lessons 4,6,and Presenter's Guide SFRS – Unit 1 Frindle		

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1st Six Weeks		5.8.b. Identify major body systems and their functions of the respiratory system.	Scott Foremans Pages 72-73 AMSTI-Ecosystems-Lessons 4,6,and Presenter's Guide SFRS- Unit 1: Frindle ; Fhunder Rose		
		5.8.c. Identify major body systems and their functions of the excretory systems.	Scott Foresman 78-79 AMSTI-Ecosystems-Lessons 4,6,and Presenter's Guide Buckle Down Activity Flip Chart Workbooks Experiment Boxes Science AR Books Internet – SF successnet.com SFRS – Unit 1- Frindle; Thunder Rose		

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1st Six Weeks		5.8.d. Identify major body systems and their functions of the reproductive systems.	Scotts Foreman N/A AMSTI-Ecosystems-Lessons 4,6,and Presenter's Buckle Down Activity Flip Chart Workbooks Experiment Boxes Science AR Books Internet – SF successnet.com SFRS – Unit 1- Frindle; Thunder Rose		
		<ul> <li>5.9.a. Describe the relationship of populations within a habitat to various communities and ecosystems.</li> <li>5.9.B.1. Describing the relationship between food chains and food webs</li> <li>5.9.B.2. Describing symbiotic relationships</li> </ul>	Scott Foreman Pages Chapter 5 (127-153) Leveled Readers and Leveled Practice; Direct Inquiry Activities; Appropriate Workbook pages; Hand on activities. Chapter Vocabulary; Appropriate ARI Strategies. AMSTI-Ecosystems-Lessons 1-16, and Presenter's		

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1st Six Weeks		<ul> <li>5.10.a. Identify spheres of Earth including geosphere.</li> <li>5.10.B.1.Describing technology used to investigate Earth Examples: sonar, radar, seismograph, weather balloons, satellites.</li> <li>5.10.B.2. Earth Describing the rock cycle</li> </ul>	Scott Foreman Chapter 9 (257- 296) Leveled Readers and Leveled Practice; Direct Inquiry Activities; Appropriate Workbook pages; Hand on activities. Chapter Vocabulary; Appropriate ARI Strategies. AMSTI-Solar Energy- Presenter's Guide Investigation 2 Graphic Organizer; Level		
			Reader Text; Adjusted Time ;Copy of class notes Unit 1 – Thunder Rose		

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2nd Six Weeks	AHSGE # 13 Trace the flow of energy through food chains, food webs, and energy pyramids.	<ul> <li>5.9.a. Describe the relationship of populations within a habitat to various communities and ecosystems.</li> <li>5.9.B.1. Describing the relationship between food chains and food webs</li> <li>5.9. B.2. Describing symbiotic relationships</li> </ul>	Scott Foreman Pages Chapter 5 (127-153) AMSTI-Ecosystems-Lessons 1- 16, and Presenter's		
	AHSGE # 14 Demonstrate an understanding of the water cycle.	<ul> <li>5.10.a. Identify spheres of Earth including geosphere.</li> <li>5.10.B.1.Describing technology used to investigate Earth Examples: sonar, radar, seismograph, weather balloons, satellites.</li> <li>5.10.B.2. Earth Describing the rock cycle</li> </ul>	Scott Foreman Chapter 9 (257- 296) AMSTI-Solar Energy-Presenter's Guide Investigation 2		
	AHSGE # 14 Demonstrate an understanding of the water cycle.	<ul> <li>5.10.b. Identify spheres of Earth including atmosphere.</li> <li>5.10. B.1.Describing technology used to investigate Earth Examples: sonar, radar, seismograph, weather balloons, satellites</li> </ul>	Scott Foreman Chapter 8 (225- 255) AMSTI-Solar Energy-Presenter's Guide Investigation 2		

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2nd Six Weeks		5.7. a. Identify common parts of plant and animal cells, including the nucleus, cytoplasm, and cell membrane.	<ul> <li>Scott Foremans Pages 10, 25,39-41 Leveled Readers and Leveled Practice; Direct Inquiry Activities; Appropriate Workbook pages; Hand on activities. Chapter Vocabulary; Appropriate ARI Strategies.</li> <li>AMSTI- Microworlds- Lesson 12-14,11 and Presenter's Guide</li> <li>Unit 2 – Inside Out; Jane Goodalls</li> <li>Graphic Organizer; Level Reader Text; Adjusted Time</li> </ul>		

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		5.8.a.Identify major body systems	Scott Foresman Pg. 63-69		
		and their functions of the	Leveled Readers and Leveled		
		circulatory system.	Practice; Direct Inquiry		
			Activities; Appropriate		
			Workbook pages; Hand on		
			activities. Chapter Vocabulary;		
			Appropriate ARI Strategies.		
			AMSTI-Ecosystems-Lessons		
			4,6,and Presenter's Guide		
			Graphic Organizer; Level		
			Reader Text; Adjusted Time;		

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3rd Six Weeks	AHSGE # 14 Demonstrate an understanding of the water cycle.	<ul> <li>5.10.c. Identify spheres of Earth including hydrosphere.</li> <li>5.10. B.1.Describing technology used to investigate</li> <li>Example; sonar, radar, seismograph, weather balloons, satellites</li> </ul>	Scott Foreman Chapter 7 (199- 221) AMSTI-Solar Energy-Presenter's Guide Investigation 2 Buckle Down Activity Flip Chart Workbooks Experiment Boxes Science AR Books		
		<ul> <li>5.11.1. Compare distances from the sun to planets in our solar system.</li> <li>5.11.B.1 Relating the size of Earth to the size of other planets in our solar system</li> <li>5.11. B.2 Identifying technology used to study planets.</li> <li>Examples: Hubble telescope, space probes, Mars Exploration Rover</li> </ul>	Scott Foreman Pages 511-517, 548-551,588-591 AMSTI-Solar Energy Investigation 1 Science Stories The Sun Presenter's Guide		
		<ul> <li>5.6. a. Compare effects of gravitational force on Earth.</li> <li>5.6.B.1. Identifying contributions of Newton to the study of gravity.</li> <li>5.6.B.2. Describing how a spring scale is used to measure weight</li> <li>5.6.B.3. Explaining how air resistance affects falling objects</li> </ul>	Scott Foresman Pages- 344, 411, 418-425,560,561		

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3rd Six Weeks		<ul> <li>5.6. b. Compare effects of gravitational force on the moon.</li> <li>5.6. c. Compare effects of gravitational force within space.</li> <li>5.6.B.1. Identifying contributions of Newton to the study of gravity.</li> <li>5.6.B.3. Explaining how air resistance affects falling objects</li> </ul>	Scott Foresman Pg. 86-87, 410- 411,560-561 Buckle Down Activity Flip Chart Workbooks Experiment Boxes Science AR Books		

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4th Six Weeks		<ul> <li>5.1.a. Identify evidence of chemical changes through color, gas formation, solid formation, and temperature change.</li> <li>Example: Combining vinegar and baking soda to produce a gas.</li> <li>5.2.a Define mass, volume, density.</li> <li>5.2.B.1. Identifying the atom as the basic building block of matter</li> <li>5.2.B.3. • Relating density to the sinking or floating of an object in a liquid.</li> <li>5.2.B.2. Relating temperature changes to particle motion.</li> <li>Example: movement of colored dye in hot and cold water</li> </ul>	Scott Foresman, Pg. 372-385 AMSTI Globe Buckle Down Activity Flip Chart Workbooks Experiment Boxes Science AR Books Scott Foresman Pages. 345 AMSTI-Variables-Investigation 2 Scott Foresman Pages 346-347 AMSTI Variables-Investigation 2		
		5.3. Use everyday indicators to identify common acids and bases. Examples: using grape juice to determine that vinegar is an acid, using juice from boiled red cabbage to determine that baking soda is a base	Scott Foresman Pages 384-385 AMSTI Ecosystems-Lesson 8 and Presenter's Guide		

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5th Six Weeks		<ul><li>5.4.a. Describe forms of energy.</li><li>5.4. B.1. Identifying types of potential and kinetic energy.</li><li>Examples: potential-water behind a dam, battery; kinetic-water moving across turbine blades.</li></ul>	Scott Foresman Pages 447-451 AMSTI Heat and Light Solar Energy Investigation 1-4 Buckle Down Activity Flip Chart Workbooks Experiment Boxes Science AR Books		
		<ul><li>5.4.b. Describe forms of chemical energy.</li><li>5.4.c. Describe forms of heat energy.</li><li>5.4. B.3. Identifying the transfer of energy by conduction, convection, and radiation</li></ul>	Scott Foresman Pages 452 AMSTI Heat and Light Solar Energy Investigation 1-4 Scott Foresman Pages 462-463 464-465 AMSTI Heat and Light Solar Energy Investigations 1-4		
		<ul> <li>5.4.d. Describe forms of light energy.</li> <li>5.4.B.3. Identifying the transfer of energy by conduction, convection, and radiation.</li> <li>5.4.e. Describe forms of mechanical energy.</li> </ul>	Scott Foresman Pages458-461 AMSTI Heat and Light Solar Energy- Investigations 1-4 Scott Foresman Pages 447 AMSTI Heat and Light Solar Energy-Investigations 1-4		

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5th Six Weeks		5.5.b. Contrast ways in which light rays are bent by convex lenses.	Scott Foresman Pg.461 AMSTI Microworlds-Lessons 3-4 Presenter's Guide Teacher Supplement Material with internet and other resources		
		5.5.B.1. Describing how a prism forms a visible spectrum.	Scott Foresman, Page 460 AMSTI- Microworlds-Lessons 3- 4		
		5.5.B.2. Explaining why different objects have different colors.	Scott Foresman Page. 461AMSTI-Microworlds-Lessons 3-4 extension activity includingmirrors in Presenter's GuideBuckle Down Activity Flip ChartWorkbooks Experiment BoxesScience AR Books		

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6th Six Weeks		<ul> <li>5.4.a. Describe forms of energy, including chemical, heat, light, and mechanical.</li> <li>5.4. B.1. Identifying types of potential and kinetic energy.</li> <li>Examples: potential-water behind a dam, battery; kinetic-water moving across turbine blades.</li> <li>5.4.2. Describing alternatives to the use of fossil fuels.</li> <li>5.4.3. Identifying the transfer of energy by conduction, convection, and radiation.</li> </ul>	Scott Foresman Pages 447-451 AMSTI Heat and Light Solar Energy Investigation 1-4 Scott Foresman Pages 462-463 464-465 AMSTI Heat and Light Solar Energy Investigations 1-4 Buckle Down Activity Flip Chart Workbooks Experiment Boxes Science AR Books		
	AHSGE # 13 Trace the flow of energy through food chains, food webs, and energy pyramids.	<ul> <li>5.9.a. Describe the relationship of populations within a habitat to various communities and ecosystems.</li> <li>5.9. B.1. Describing the relationship between food chains and food webs</li> <li>5.9. B.2. Describing symbiotic relationships</li> </ul>	Scott Foreman Pages Chapter 5 (127-153) AMSTI-Ecosystems-Lessons 1- 16, and Presenter's		