

# Lee County Schools 4<sup>th</sup> Grade Science Pacing Guide

1<sup>st</sup> Nine Weeks (August – October)

Alabama COS Standards	Week	Topics/ Themes	Vocabulary	Textbook/ Resources	AMSTI Modules	NAEP Correlations	Technology Based Lessons & Links
<b>Describe how electrical circuits can be used to produce light, heat, sound, and magnetic fields.</b> <ul style="list-style-type: none"> <li>Identifying ways to use and conserve electrical energy</li> <li>Identifying characteristics of parallel and series circuits</li> <li>Classifying materials as conductors, nonconductors, and insulators of electricity and heat</li> <li>Identifying relationships among charge, current, and potential energy</li> <li>Identifying components of a circuit</li> </ul>	Weeks 1 - 7	Physical Science	static electricity, current electricity, series circuit, parallel circuit, conductor, insulator, magnet, magnetic pole, magnetic field, electromagnet, generator, electric motor, potential energy, kinetic energy, hydroelectric power, geothermal energy, solar energy	HS-Unit F Ch 14.2  HS-Unit F Ch 14.4  HS-Unit F Ch 14.1  HS-Unit F Ch 14.1  HS-Unit F Ch 14.3  HS-Unit F Ch 14.1	AMSTI-EC Lessons 8,10,13,14,15,16,17  AMSTI-EC Lessons 10,11,112,13,14,15,16,17  AMSTI-EC Lessons 4,6,7,8,9,13,14,15,16,17  AMSTI-EC Lessons 2,3,4,5,6,8,11,12,13,14,15,16,17  AMSTI-EC Lessons 2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17		<a href="http://www.amsti.org/">http://www.amsti.org/</a>  <a href="http://www.harcourtschool.com/">http://www.harcourtschool.com/</a>  <a href="http://alex.state.al.us/index.php">http://alex.state.al.us/index.php</a>  <a href="http://www.thinkfinity.org/">http://www.thinkfinity.org/</a>

<b>Describe the appearance and movement of Earth and its moon.</b> <ul style="list-style-type: none"> <li>Identifying the waxing and waning of the moon in the night sky</li> <li>Identifying lunar and solar eclipses</li> </ul>	Week 8	Earth & Space Science	axis, orbit, moon, phases	HS-Unit D Ch 9.1 HS-Unit D Ch 9.1 HS-Unit D Ch 9.1			<a href="http://www.amsti.org/">http://www.amsti.org/</a> <a href="http://www.harcourtschool.com/">http://www.harcourtschool.com/</a> <a href="http://alex.state.al.us/index.php">http://alex.state.al.us/index.php</a> <a href="http://www.thinkfinity.org/">http://www.thinkfinity.org/</a>
<b>Describe components of our solar system.</b> <ul style="list-style-type: none"> <li>Defining comets, asteroids, and meteors</li> </ul>	Week 9	Earth & Space Science	solar system, planet, comet, star, sun, constellation, galaxy, universe	HS-Unit D Ch 9.2, 9.3 HS-Unit D Ch 9.2			<a href="http://www.amsti.org/">http://www.amsti.org/</a> <a href="http://www.harcourtschool.com/">http://www.harcourtschool.com/</a> <a href="http://alex.state.al.us/index.php">http://alex.state.al.us/index.php</a> <a href="http://www.thinkfinity.org/">http://www.thinkfinity.org/</a>

# Lee County Schools 4<sup>th</sup> Grade Science Pacing Guide

2nd Nine Weeks (October - December)

Alabama COS Standards	Week	Topics/ Themes	Vocabulary	Textbook/ Resources	AMSTI Modules	NAEP Correlations	Technology Based Lessons & Links
<b>Identify technological advances and other benefits of space exploration.</b> <ul style="list-style-type: none"> <li>Listing highlights of space exploration, including satellites, manned moon missions, the unmanned Mars mission, and an inhabited space station</li> <li>Identifying Alabama's contribution to the space industry</li> </ul>	Weeks 1 - 4	Earth & Space Science	Global Positioning Satellite (GPS)	HS-leveled readers  Alabama History Unit 5 Chapter 10	AMSTI-GLOBE  AMSTI-MD Lessons 1,2,3,4,5,6,7,8,9,1 0,11,12,13,14,15,1 6,17		<a href="http://www.amsti.org/">http://www.amsti.org/</a> <a href="http://www.harcourtschool.com/">http://www.harcourtschool.com/</a> <a href="http://alex.state.al.us/index.php">http://alex.state.al.us/index.php</a> <a href="http://www.thinkfinity.org/">http://www.thinkfinity.org/</a>

<b>Describe effects of friction on moving objects.</b> <ul style="list-style-type: none"> <li>Identifying momentum and inertia as properties of moving objects</li> <li>Identifying ways to increase or decrease friction</li> </ul>	Weeks 5 - 9	Physical Science	position, motion, speed, velocity, acceleration, force, inertia, gravity, gravitation, weight, friction	HS-Unit F Ch 15.1, 15.2  HS-Unit F Ch 15.3  HS-Unit F Ch 15.3			<a href="http://www.amsti.org/">http://www.amsti.org/</a>  <a href="http://www.harcourtschool.com/">http://www.harcourtschool.com/</a>  <a href="http://alex.state.al.us/index.php">http://alex.state.al.us/index.php</a>  <a href="http://www.thinkfinity.org/">http://www.thinkfinity.org/</a>
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# Lee County Schools 4<sup>th</sup> Grade Science Pacing Guide

3rd Nine Weeks (January - March)

Alabama COS Standards	Week	Topics/ Themes	Vocabulary	Textbook/ Resources	AMSTI Modules	NAEP Correlations	Technology Based Lessons & Links
<b>Describe geological features of Earth, including bodies of water, beaches, ocean ridges, continental shelves, plateaus, faults, canyons, sand dunes, and ice caps.</b>	Week 1	Earth & Space Science	landform, mountain, topography	HS-Unit C Ch 7.1			<a href="http://www.amsti.org/">http://www.amsti.org/</a> <a href="http://www.harcourtschool.com/">http://www.harcourtschool.com/</a> <a href="http://alex.state.al.us/index.php">http://alex.state.al.us/index.php</a> <a href="http://www.thinkfinity.org/">http://www.thinkfinity.org/</a>

<p><b>Describe the interdependence of plants and animals.</b></p> <ul style="list-style-type: none"> <li>Describing behaviors and body structures that help animals survive in particular habitats</li> <li>Describing life cycles of various animals to include incomplete and complete metamorphosis</li> <li>Tracing the flow of energy through a food chain</li> <li>Identifying characteristics of organisms, including growth and development, reproduction, acquisition and use of energy, and response to environment</li> </ul>	<p>Weeks 2 - 5</p>	<p>Life Science</p>	<p>basic needs, adaptation, instinct, hibernation, migration, learned behavior, direct development, metamorphosis, producer, consumer, herbivore, carnivore, omnivore, decomposer, habitat, niche, food chain, prey, predator, food web, energy pyramid, organism, microscopic, bacteria, protist, vascular, nonvascular, fungi, vertebrate, invertebrate, trait, heredity, gene, life cycle</p>	<p>HS-Unit A Ch 3.1, 3.2</p> <p>HS-Unit A Ch 2.3</p> <p>HS-Unit B Ch 5.1, 5.2</p> <p>HS-Unit A Ch 1.1, 1.2, 1.3 HS-Unit A Ch 2.1, 2.2</p>	<p>AMSTI-AS Lessons 1,2,3,4,5,6,7,8,9,10,12,13,14,15,16,17</p> <p>AMSTI-AS Lessons 4,6,7,9,12,16,17</p> <p>AMSTI-all AS Lessons</p> <p>AMSTI-AS Lessons 4,5,6,9,10,11,12,16,17</p>		<p><a href="http://www.amsti.org/">http://www.amsti.org/</a></p> <p><a href="http://www.harcourtschool.com/">http://www.harcourtschool.com/</a></p> <p><a href="http://alex.state.al.us/index.php">http://alex.state.al.us/index.php</a></p> <p><a href="http://www.thinkfinity.org/">http://www.thinkfinity.org/</a></p>
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<b>Classify animals as vertebrates or invertebrates and as endotherms or ectotherms.</b> <ul style="list-style-type: none"> <li>Describing the organization of cells into tissues, organs, and organ systems</li> <li>Describing the grouping of organisms into populations, communities, and ecosystems</li> <li>Classifying common organisms into kingdoms, including Animalia, Plantae, Protista, Fungi, Archaeobacteria, and Eubacteria.</li> </ul>	Weeks 6 & 9	Life Science	vertebrate, invertebrate, environment, ecosystem, population, community, biotic, abiotic, diversity, organism, microscopic, bacteria, protist	HS-Unit A Ch 1.3 HS-Unit A Ch 1.3 HS-Unit B Ch 4.1, 4.2  HS-Unit A Ch 1.1	AMSTI-AS Lessons 3,5,8  AMSTI-AS Lessons 4,6,9		<a href="http://www.amsti.org/">http://www.amsti.org/</a> <a href="http://www.harcourtschool.com/">http://www.harcourtschool.com/</a> <a href="http://alex.state.al.us/index.php">http://alex.state.al.us/index.php</a> <a href="http://www.thinkfinity.org/">http://www.thinkfinity.org/</a>
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# Lee County Schools 4<sup>th</sup> Grade Science Pacing Guide

## 4th Nine Weeks (March - May)

Alabama COS Standards	Week	Topics/ Themes	Vocabulary	Textbook/ Resources	AMSTI Modules	NAEP Correlations	Technology Based Lessons & Links
<b>Compare different pitches of sound produced by changing the size, tension, amount, or type of vibrant material.</b> <ul style="list-style-type: none"> <li>Describing the relationship between the structure of the ear and hearing</li> </ul>	Weeks 1 - 6	Physical Science	reflection, vibration, pitch, intensity, wavelength, frequency, amplitude, absorption, transmission, light, refraction	HS-Unit E Ch 12.1, 12.2, 12.3  HS-Unit E Ch 12.3  HS-Unit E Ch 13.1  HS-Unit E Ch 13.1	AMSTI-PS Unit 1 Lessons 1,2,3 AMSTI-PS Unit 2 Lessons 1,2,3 AMSTI-PS Unit 3 Lessons 1,2  AMSTI-PS Unit 3 Lesson 1  AMSTI-GLOBE		<a href="http://www.amsti.org/">http://www.amsti.org/</a>  <a href="http://www.harcourtschool.com/">http://www.harcourtschool.com/</a>  <a href="http://alex.state.al.us/index.php">http://alex.state.al.us/index.php</a>  <a href="http://www.thinkfinity.org/">http://www.thinkfinity.org/</a>
<b>Recognize how light interacts with transparent, translucent, and opaque materials.</b> <ul style="list-style-type: none"> <li>Predicting the reflection or absorption of light by various objects</li> </ul>	Weeks 7 - 9	Physical Science	light, reflection, refraction	HS-Unit F Ch 13.1, 13			<a href="http://www.amsti.org/">http://www.amsti.org/</a>  <a href="http://www.harcourtschool.com/">http://www.harcourtschool.com/</a>  <a href="http://alex.state.al.us/index.php">http://alex.state.al.us/index.php</a>  <a href="http://www.thinkfinity.org/">http://www.thinkfinity.org/</a>