

Science Instructional Guide for Grade 4

1 st Nine Weeks	2 nd Nine Weeks	3 rd Nine Weeks	4 th Nine Weeks
<p>Scott Foresman Introduction to Scientific Thinking #1 pp. xx-xxxii</p> <p>Scott Foresman Unit B Earth Science #2 <u>Chapter 6</u> Directed Inquiry Lesson 1 Lesson 2 <i>Omit Lesson 3</i> <i>Omit Lesson 4</i> <i>Omit Guided Inquiry</i></p> <p>#3 <u>Chapter 7</u> Directed Inquiry Lesson 1 Lesson 2 Guided Inquiry Math in Science</p> <p><i><u>Omit Chapter 8</u></i></p> <p>#4 <u>Chapter 9</u> Directed Inquiry Lesson 1 Lesson 2 Lesson 3 Guided Inquiry</p> <p>#5 <u>Chapter 10</u> <i>Omit Directed Inquiry</i> Lesson 1 <i>Omit Lesson 2</i> <i>Omit Guided Inquiry</i> Math in Science Full Inquiry</p> <p>Unit C Physical Science #6 <u>Chapter 11</u> Directed Inquiry Lesson 1 Lesson 2 Lesson 3 Lesson 4 Guided Inquiry Math in Science</p>	<p>Scott Foresman Unit C Physical Science #7 <u>Chapter 12</u> <i>Omit Directed Inquiry</i> Lesson 1 Lesson 2 Guided Inquiry Math in Science</p> <p>#8 <u>Chapter 13</u> Directed Inquiry Lesson 1 Lesson 2 Lesson 3 Lesson 4 Lesson 5 Guided Inquiry</p> <p>#9 <u>Chapter 14</u> Directed Inquiry Lesson 1 Lesson 2 <i>Omit Lesson 3</i> Lesson 4 Guided Inquiry</p>	<p>Scott Foresman Unit C Physical Science #10 <u>Chapter 15</u> <i>Omit Directed Inquiry</i> Lesson 1 Lesson 2 <i>Omit Lesson 3</i> Guided Inquiry</p> <p><i><u>Omit Chapter 16</u></i></p> <p>Scott Foresman Unit D Space and Technology #11 <u>Chapter 17</u> <i>Omit Directed Inquiry</i> Lesson 1 Lesson 2 Guided Inquiry Math in Science</p> <p>#12 <u>Chapter 18</u> Directed Inquiry Lesson 1 Lesson 2 Lesson 3 Lesson 4 Math in Science <i>Omit Guided Inquiry</i> Full Inquiry</p> <p><i><u>Omit Chapter 19</u></i></p>	<p>Scott Foresman Unit A Life Science #13 <u>Chapter 1</u> Directed Inquiry Lesson 1 Lesson 2 <i>Omit Lesson 3</i> Lesson 4 Lesson 5 <i>Omit Guided Inquiry</i></p> <p>#14 <u>Chapter 2</u> Directed Inquiry Lesson 1 <i>Omit Lesson 2</i> <i>Omit Lesson 3</i> <i>Omit Lesson 4</i> Guided Inquiry Math in Science</p> <p>#15 <u>Chapter 3</u> Directed Inquiry Lesson 1 Lesson 2 Lesson 3 Guided Inquiry Math in Science</p> <p>#16 <u>Chapter 4</u> Directed Inquiry Lesson 1 Lesson 2 Lesson 3 Lesson 4 Guided Inquiry</p> <p>#17 <u>Chapter 5</u> Directed Inquiry Lesson 1 Lesson 2 Lesson 3 <i>Omit Lesson 4</i> <i>Omit Guided Inquiry</i> Full Inquiry</p>

FOURTH GRADE #7

Physical Science

Scott Foresman Chapter 12: Heat

BENCHMARKS AND <i>ITEM CLARIFICATION</i>	AA or CS	Test Item Code
The student...		
SC.A.1.2.2 knows that common materials (e.g., water) can be changed from one state to another by heating and cooling. <i>Combines the weight or mass of components to get the total weight/mass of the combined object.</i>	CS	MC
SC.B.1.2.2 recognizes various forms of energy (e.g., heat, light, and electricity). (Also assesses B.1.2.3, B.1.2.4, B.1.2.5, and B.1.2.6) <i>Identifies types of energy by their source and properties.</i>	AA	MC
SC.B.1.2.3 knows that most things that emit light also emit heat. (Assessed as B.1.2.2)	AA	MC
SC.B.1.2.4 knows the many ways in which energy can be transformed from one type to another. (Assessed as B.1.2.2)	AA	MC
SC.B.1.2.5 knows that various forms of energy (e.g., mechanical, chemical, electrical, magnetic, nuclear, and radiant) can be measured in ways that make it possible to determine the amount of energy that is transformed. (Assessed as B.1.2.2)	AA	MC
SC.B.1.2.6 knows ways that heat can move from one object to another. (Assessed as B.1.2.2)	AA	MC
Benchmark Codes: AA = Annually Assessed Benchmarks; CS = Content-Sampled Benchmarks Test Item Codes: MC = Multiple Choice; SR = Short Response; ER = Extended Response		

SCOTT FORESMAN SCIENCE

Scott Foresman Textbook	Lesson 1	Why does matter have energy? pp. 351-353	SC.A.1.2.2 SC.B.1.2.5
	Lesson 2	How does heat move? pp. 354-359	SC.B.1.2.3 SC.B.1.2.4 SC.B.1.2.6
	Guided Inquiry	How are thermal energy and temperature different? pp. 360-361	SC.B.1.2.2 SC.B.1.2.5
	Math in Science	Using Temperature Scales pp. 362-363	SC.B.1.2.5
Scott Foresman Leveled Readers	<i>Heat</i> (Below-Level) <i>Energy from Heat</i> (On-Level) <i>How Hot?</i> (Advanced)		
Scott Foresman Assessment	Chapter Review; ExamView Test (build your own test for lessons 1 and 2 in chapter 12); FCAT Science Test Prep pp. 79-84; Assessment Book pp. 73-76; Workbook pp. 112-113		
Vocabulary Bold = FCAT Underscore = Marzano	heat		

OTHER RESOURCES

CIA www.cs.ocps.net	<u>Strand B - Energy</u> : The Heat Is On; What Makes the Best Insulator? Get a Rise out of Heat; A Current Affair; Hot Rods
AIMS www.aimsedu.org	<i>Popping with Power</i> : Cool Conductors; Polar Brrrrs
Literature	
Other	Science Court: <i>Particles in Motion</i> , Tom Snyder Productions Page Keeley, <i>Uncovering Student Ideas in Science, Vol. 2</i> : What's in the Bubbles?

NOTES

FOURTH GRADE #8				
Physical Science				
Scott Foresman Chapter 13: Electricity and Magnetism				
BENCHMARKS AND ITEM CLARIFICATION			AA or CS	Test Item Code
The student...				
SC.B.1.2.2 recognizes various forms of energy (e.g., heat, light, and electricity). (Also assesses B.1.2.3, B.1.2.4, B.1.2.5, and B.1.2.6) <i>Identifies types of energy by their source and properties.</i>			AA	MC
SC.B.1.2.4 knows the many ways in which energy can be transformed from one type to another. (Assessed as B.1.2.2)			AA	MC
Benchmark Codes: AA = Annually Assessed Benchmarks; CS = Content-Sampled Benchmarks Test Item Codes: MC = Multiple Choice; SR = Short Response; ER = Extended Response				
SCOTT FORESMAN SCIENCE				
Scott Foresman Textbook	Directed Inquiry	How can static electricity affect objects? pp. 372		SC.B.1.2.2
	Lesson 1	How does matter become charged? pp. 375-377		SC.B.1.2.2
				SC.B.1.2.4
	Lesson 2	How do electric charges flow? pp. 378-379		SC.B.1.2.4
	Lesson 3	What are magnetic fields? pp. 382-385		SC.B.1.2.4
	Lesson 4	How is electricity transformed to magnetism? pp. 386-389		SC.B.1.2.4
	Lesson 5	How is magnetism transformed to electricity? pp. 390-393		SC.B.1.2.2
	Guided Inquiry	What is an electromagnet? pp. 394-395		SC.B.1.2.4
				SC.B.1.2.2
Scott Foresman Leveled Readers	<i>Electricity and Magnetism</i> (Below-Level) <i>Electric and Magnetic Power</i> (On-Level) <i>Poles Apart</i> (Advanced)			
Scott Foresman Assessment	Chapter Review; ExamView Test (build your own test for lessons 1-5 in chapter 13); FCAT Science Test Prep pp. 85-90; Assessment Book pp. 77-80; Workbook pp. 120-124			
Vocabulary Bold = FCAT Underscore = Marzano	<u>magnetic</u>			
OTHER RESOURCES				
CIA www.cs.ocps.net	Strand B - Electricity and Magnetism: Don't Rub Me the Wrong Way; I Finally See the Light; Let It Flow, Let It Flow, Let It Flow; Insulator or Conductor? What's My Line?			
AIMS www.aimsedu.org	Vol. 15, No.10: Electromagnetic Explorations; <i>Popping With Power</i> : Metal Detector; Vol. 13, No. 6: Double-and-Triple Decker Magnet Sandwiches; <i>Electrical Connections</i> : The Electromagnet Connection; Vol. 9, No. 4: Bridging the Gap			
Literature				
Other	Carolina Biological Program, <i>Science, Technology and Children</i> : Electric Circuits Science Court: <i>Electric Circuits</i> , Tom Snyder Productions			
NOTES				

Students are not required to understand series and parallel circuits (Lesson 2 pages 380-381).

FOURTH GRADE #9

Physical Science

Scott Foresman Chapter 14: Sound and Light

BENCHMARKS AND ITEM CLARIFICATION		AA or CS	Test Item Code
The student...			
SC.B.1.2.2 recognizes various forms of energy (e.g., heat, light, and electricity). (Also assesses B.1.2.3, B.1.2.4, B.1.2.5, and B.1.2.6) <i>Identifies types of energy by their source and properties.</i>		AA	MC
SC.C.1.2.2 knows that waves travel at different speeds through different materials. <i>Identifies ways in which simple machines use forces other than human input to operate.</i>		CS	MC
Benchmark Codes: AA = Annually Assessed Benchmarks ; CS = Content-Sampled Benchmarks Test Item Codes: MC = Multiple Choice; SR = Short Response; ER = Extended Response			
SCOTT FORESMAN SCIENCE			
Scott Foresman Textbook	Directed Inquiry Lesson 1	What makes sound change? p. 404 What is sound energy? pp. 407-411	SC.B.1.2.2 SC.B.1.2.2 SC.C.1.2.2
	Lesson 2 Lesson 4	How is sound made? pp. 412-415 How do light and matter interact? pp. 420-425	SC.B.1.2.2 SC.B.1.2.2 SC.C.1.2.2
	Guided Inquiry	How is light reflected? pp. 426-427	SC.B.1.2.2
Scott Foresman Leveled Readers	<i>Sound and Light</i> (Below-Level) <i>Light and Sound Waves</i> (On-Level) <i>Movie Science</i> (Advanced)		
Scott Foresman Assessment	Chapter Review; ExamView Test (build your own test for lessons 1, 2 and 4 in chapter 14); FCAT Science Test Prep pp. 91-96; Assessment Book pp. 81-84; Workbook pp. 132, 133, 135 (Note: Omit all questions relating to lesson 3.)		
Vocabulary Bold = FCAT Underscore = Marzano	<u>reflection</u>, <u>refraction</u>		
OTHER RESOURCES			
CIA www.cs.ocps.net	Strand B - Energy: Spotlight on Light; Bouncing Beams; Light Benders		
AIMS www.aimsedu.org	Primarily Physics: Sound Is Vibration; Pieces and Patterns: Mirrors That Multiple		
Literature	<i>Sound (Energy Works! Series)</i> , Karpenlenia; <i>The Remarkable Farkle McBride</i> , Lithgow		
Other	Science Court: <i>Sound</i> , Tom Snyder Productions Page Keeley, <i>Uncovering Student Ideas in Science, Vol. 1: Can It Reflect Light?</i> Ansberry and Morgan, <i>Picture-Perfect Science Lessons: Sounds of Silence</i>		
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