

Sumter County Schools

4th Grade Science Pacing Guide

Detailed Standards	Prerequisite Skill(s)	Priority Skill (Optional)	Time Frame	Assessment	Resources (Optional)	Comments/ Focus Skills
<p>Light S4P1. Obtain, evaluate, and communicate information about the nature of light and how light interacts with objects. a. Plan and carry out investigations to observe and record how light interacts with various materials to classify them as opaque, transparent, or translucent. b. Plan and carry out investigations to describe the path light travels from a light source to a mirror and how it is reflected by the mirror using different angles. c. Plan and carry out an investigation utilizing everyday materials to explore examples of when light is refracted.</p> <p>Sound S4P2. Obtain, evaluate, and communicate information about how sound is produced and changed and how sound and/or light can be used to communicate. a. Plan and carry out an investigation utilizing everyday objects to</p>	<p>Light S1P1. Obtain, evaluate, and communicate information to investigate light and sound. a. Use observations to construct an explanation of how light is required to make objects visible. b. Ask questions to identify and compare sources of light. c. Plan and carry out an investigation of shadows by placing objects at various points from a source of light.</p> <p>Sound S1P1 Obtain, evaluate, and communicate information to investigate light and sound. d. Construct an explanation supported by evidence that vibrating materials can make sound and that</p>		<p>Light S4P1a,b,c January 10 -- January 19, 2022</p> <p>Sound S4P2a,b January 20 -- January 31, 2022</p> <p>Light and Sound Summative Review S4P1a,b,c, S4P2a,b February 1 -- February 4, 2022</p> <p>Force and Motion S4P3a,b,c February 7 -- February 25, 2022</p> <p>Force and Motion Summative Review S4P3a,b,c February 28 -- March 4, 2022</p>	<p>Formative:</p> <ol style="list-style-type: none"> 1. Light Reading Comprehension 2. Light Quiz 3. Sound Facts Internet Hunt 4. Sound Reading Comprehension 5. Simple Machines Drag and Drop 6. Simple Machines Reading Comprehension <p>Summative:</p> <ol style="list-style-type: none"> 1. Light and Sound Summative 2. Force and Motion/Simple Machines Summative 3. Instrument/Sound Project 4. Simple Machines Project 	<p>Google SlideShows</p> <ul style="list-style-type: none"> Light DIGITAL ... Team Copy of L... Sound Energy ... Copy of Simple ... Copy of Simple ... <p>Simple Machines Interactive Website</p> <ul style="list-style-type: none"> Copy of Simple ... <p>MyOn Books: See list in folder</p> <p>Weekly Studies: Week 6 – Light and Sound Week 8 – A World in Motion Week 9 – Force, Matter, and Motion</p> <p>Videos:</p> <ul style="list-style-type: none"> Light The Dr. ... Light and Shad... Brainpop Jr: Light What is Sound? What is Sound?... Sound for Kids ... Sound Experim... Sound BrainPO... Force and Moti... Bill Nye the Sci... Simple Machine... What are Simpl... Six Simple Mac... Solving Proble... 	<p>Reading ELAGSE4L6 Use grade-appropriate general academic vocabulary, including words that indicate precise actions, emotions, and states of being (e.g., whined, loneliness, peacefulness) as well as grade-appropriate content-area vocabulary (e.g., wildlife, adapt, habitat) correctly in context</p> <p>ELAGSE4RI3 Explain cause-and-effect relationships (i.e., explain what happened and why) in a historical, scientific, or technical text by comprehending specific information in the text as well as by identifying individual cue words</p> <p>ELAGSE4RI9 Integrate information from two nonfiction texts on the same topic into a broader understanding in order to write or speak knowledgeably about the topic</p> <p>ELAGSE4RI10 Describe characteristics of different informational texts including biographies, history books, science books, and how-to texts.</p>

<p>produce sound and predict the effects of changing the strength or speed of vibrations. b. Design and construct a device to communicate across a distance using light and/or sound.</p> <p><u>Force and Motion</u> S4P3. Obtain, evaluate, and communicate information about the relationship between balanced and unbalanced forces. a. Plan and carry out an investigation on the effects of balanced and unbalanced forces on an object and communicate the results. b. Construct an argument to support the claim that gravitational force affects the motion of an object. c. Ask questions to identify and explain the uses of simple machines (lever, pulley, wedge, inclined plane, wheel and axle, and screw) and how forces are changed when simple machines are used to complete tasks.</p>	<p>sound can make materials vibrate. e. Design a signal that can serve as an emergency alert using light and/or sound to communicate over a distance.</p> <p><u>Force and Motion</u> S2P2. Obtain, evaluate, and communicate information to explain the effect of a force (a push or a pull) in the movement of an object (changes in speed and direction). a. Plan and carry out an investigation to demonstrate how pushing and pulling on an object affects the motion of the object. b. Design a device to change the speed or direction of an object. c. Record and analyze data to decide if a design solution works as intended to change the speed or direction of an object with a force (a push or a pull).</p>				<ul style="list-style-type: none"> • Magic School Bus Rides Again: The Good, Bad, and the Gnocchi (Netflix) • StoryBots: How Do Ears Hear? (Netflix) <p><u>Writing Topics:</u> See list in folder</p>	<p><u>Math</u> MGSE4.NBT.2 Read and write multi-digit whole numbers using base-ten numerals, number names, and expanded form. Compare two multi-digit numbers based on meanings of the digits in each place, using >, =, and < symbols to record the results of comparisons.</p>
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SUMTER COUNTY INTERMEDIATE SCHOOL

Dr. April Smith, Principal

Mr. Mohan Gugulothu, Assistant Principal
Mr. Rodney Shelton, Assistant Principal

Mrs. Tawana Bettis, Counselor
Ms. Hayley Champion, Counselor

Fourth Grade Science Expectations

	<u>Light</u>	<u>Sound</u>	<u>Force and Motion</u>
Third Nine Weeks	<p>S4P1. Obtain, evaluate, and communicate information about the nature of light and how light interacts with objects.</p> <p>a. Plan and carry out investigations to observe and record how light interacts with various materials to classify them as opaque, transparent, or translucent.</p> <p>b. Plan and carry out investigations to describe the path light travels from a light source to a mirror and how it is reflected by the mirror using different angles.</p> <p>c. Plan and carry out an investigation utilizing everyday materials to explore examples of when light is refracted.</p>	<p>S4P2. Obtain, evaluate, and communicate information about how sound is produced and changed and how sound and/or light can be used to communicate.</p> <p>a. Plan and carry out an investigation utilizing everyday objects to produce sound and predict the effects of changing the strength or speed of vibrations.</p> <p>b. Design and construct a device to communicate across a distance using light and/or sound.</p>	<p>S4P3. Obtain, evaluate, and communicate information about the relationship between balanced and unbalanced forces.</p> <p>a. Plan and carry out an investigation on the effects of balanced and unbalanced forces on an object and communicate the results.</p> <p>b. Construct an argument to support the claim that gravitational force affects the motion of an object.</p> <p>c. Ask questions to identify and explain the uses of simple machines (lever, pulley, wedge, inclined plane, wheel and axle, and screw) and how forces are changed when simple machines are used to complete tasks.</p>

Math Focus Skills: MGSE4.NBT.2 (Read and write whole numbers)

Reading Focus Skills: ELAGSE4RI2 (Main Idea), ELAGSE4RI9 (Integrate information from text)



Sumter County Intermediate School

“**M**otivated, **V**isionary, **P**roblem-**S**olvers”

SCIS 4 th Grade Science Curriculum Map											
1 st 9 weeks STARS, PLANETS and MOONS			2 nd 9 weeks WATER CYCLE and WEATHER FORECAST			3 rd 9 weeks Light, Sound, and Force/Motion			4 th 9 weeks		
<u>Science Standards</u>	<u>Math Focus Standards</u>	<u>Reading Focus Standards</u>	<u>Science Standards</u>	<u>Math Focus Standards</u>	<u>Reading Focus Standards</u>	<u>Science Standards</u>	<u>Math Focus Standards</u>	<u>Reading Focus Standards</u>	<u>Science Standard</u>	<u>Math Focus Standards</u>	<u>Reading Focus Standards</u>
S4E1a,b,c,d S4E2a,b,c S4P1c	MGSE4.N BT.3 (Rounding) MGSE4.NB T.4 (Addition & Subtraction)	ELAGSE4 RI2 (Main Idea) ELAGSE4 RI3 (Cause & Effect) ELAGSE4 RI9 (Integrate information from text)	S4E3a,b S4E4a,b,c,d	MGSE4.NB T.4 (Addition & Subtraction) MGSE4.N BT.2 (Place Value)	ELAGSE4 RI2 (Main Idea) ELAGSE4 RI3 (Cause & Effect) ELAGSE4 RI9 (Integrate information from text)	S4P1a,b,c S4P2a,b S4P3a,b,c	MGSE4.O A.5 (Patterns) MGSE3.G .1 (Geometry and Shapes)	ELAGSE4 RI2 (Main Idea) ELAGSE4 RI9 (Integrate information from text)			

Grading Inventory Document

4th Grade Science


3rd Nine weeks

School: SCIS

Teacher:

Grade Level(s): 4th

Course(s)/Subject(s): Science

Name of Graded Item	Type of Graded Item (assignment, task, quiz, test, project, other, etc.)	Standards Covered by Item	Focus Skills Covered by Item	How Graded Items was Completed (individual, partner, group)	Mode of completion (synchronous, asynchronous)	Number and percentage of students who passed the item
Light Reading Comprehension Light Reading Comprehension	Assignment	S4P1a, S4P1b, S4P1c	ELAGSE4RI9 ELAGSE4RI1 MGSE4.NBT.2	Individual	Synchronous	
Light Quiz Light Quiz	Quiz	S4P1a, S4P1b, S4P1c	ELAGSE4RI9 ELAGSE4RI1 MGSE4.NBT.2	Individual	Synchronous	
Sound Facts Internet Hunt  Sound Facts	Assignment	S4P2a S4P2b	ELAGSE4RI9 ELAGSE4RI1 MGSE4.NBT.2	individual	Synchronous	
Sound Reading Comprehension Sound Reading Comprehension	Assignment	S4P2a S4P2b	ELAGSE4RI9 ELAGSE4RI1 MGSE4.NBT.2	Individual	Synchronous	

Simple Machines Drag and Drop  Simple Mac...	Quiz	S4P3a, S4P3b, S4P3c	ELAGSE4RI9 ELAGSE4RI1 MGSE4.NBT.2	Individual	Synchronous	
Simple Machines Reading Comprehension Simple Machine Reading Comprehension	Assignment	S4P3a, S4P3b, S4P3c	ELAGSE4RI9 ELAGSE4RI1 MGSE4.NBT.2	Individual	Synchronous	
Light and Sound Summative	Test	S4P1a, S4P1b, S4P1c S4P2a S4P2b	ELAGSE4RI9 ELAGSE4RI1 MGSE4.NBT.2	Individual	Synchronous	
Instrument/ Sound Project  Instrument/...	Project	S4P2a S4P2b	ELAGSE4RI9 ELAGSE4RI1 MGSE4.NBT.2	Individual	Synchronous	
Simple Machines Summative Simple Machine Summative	Test	S4P3a, S4P3b, S4P3c	ELAGSE4RI9 ELAGSE4RI1 MGSE4.NBT.2	Individual	Synchronous	
Simple Machines Project Give It a Lift with a Lever Science Project	Project	S4P3a, S4P3b, S4P3c	ELAGSE4RI9 ELAGSE4RI1 MGSE4.NBT.2	Individual	Synchronous	

Questions:

1. What was the most frequently graded item type?
2. Does the most frequently graded item include any Focus Skills? If so, how many?
3. Does the most frequently graded item include any Focus Skills not covered in the current Nine Weeks Expectations or Curriculum Maps? If so, how many?

Books for Science 3rd 9 weeks

- Why Living Things Need Light - Daniel Nunn
- Light - Abbie Dunne
- Great Scientific Theories Light - Louise and Richard Spilsburg
- Sources of Light - Louise and Richard Spilsburg
- Reflecting Light - Louise and Richard Spilsburg
- From Sunlight to Blockbuster Movie: An Energy Journey Through the World of Light - Andrew Solway
- Light and Dark - Louise and Richard Spilsburg
- Light: Shadows, Mirrors and Rainbows - Natalie M. Rosinsky
- The Illuminating World of Light with Max Axiom, Super Scientist - Emily Sohn
- Vampires and Light - Jody Jensen
- All About Light - Angela Royston
- Lookin' for Light: Science Adventures with Manny the Origami Moth - Eric Braun
- What is Light? - Mark Weakland
- Light Waves - Julia Garstecki
- The Simple Science of Light - Emily James
- Shadows - Louise and Richard Spilsburg
- From Crashing Waves to Music Download: An Energy Journey Through the World of Sound - Andrew Solway
- Mummies and Sound - Anthony Wacholtz
- Adventures in Sound with Max Axiom, Super Scientist - Emily Sohn
- Sound: Loud, Soft, High, and Low - Natalie M. Losinsky
- What's That Sound - Cinderella? - Thomas Kingsley Troupe
- What is Sound? - Jody S. Rake
- Sounds Like Trouble - Stacia Deutsch
- Simply Sound: Science Adventures with Jasper and Origami Bat - Eric Braun
- All About Sound - Angela Royston
- The Simple Science of Sound - Emily James
- Sound Waves - Michael Dahl
- Sound - Abbie Dunne

- Experiments with Forces - Isabel Thomas
- Scooby-Doo! A Science of Forces and Motion Mystery: The Rogue Robot - Megan Cooley Peterson
- Win That Sprint! Forces in Sport - Angela Royston
- Ride That Rollercoaster!: Forces at the Amusement Park - Louise and Richard Spilsbury
- Race that Bike!: Forces in Vehicles
- The Gripping Truth about the Forces and Motion - Agnieszka Biskup
- Super Cool Forces and Motion Activities with Max Axiom - Agnieszka Biskup
- Zombies and Forces and Motion - Mark Weakland
- A Crash Course in Forces and Motion with Max Axiom, Super Scientist - Emily Sohn
- Fly to Mars!: Forces in Space - Louise and Richard Spilsbury
- Thud!: Wile E. Coyote Experiments with Forces of Motion - Mark Weakland
- Do-4U the Robot Experiences Forces and Motion - Mark Weakland
- Move: On Up That Beanstalk, Jack!: The Fairytale Physics of Forces and Motion - Thomas Kingsley Troupe
- What is Force? - Jody S. Rahl
- All About Forces - Angela Royston
- Are Bowling Balls Bullies?: Learning About Forces and Motion with the Garbage Gang - Thomas Kingsley Troupe
- Motion: Push and Pull, Fast and Slow - Darlene R. Stile
- Wile E. Coyote Experiments with Simple Machines - Mark Weakland
- Lance Dragon Defends His Castle with Simple Machines - Eric Braun
- Keep It Simple rapunzel! The Fairy Tale Physics of Simple Machines - Thomas Kingsley Troupe
- Zoom It: Invent New Machines that Move - Tammy Enz
- Science Tools: Using Machines and Instruments - Chris Eboch
- The Science Behind Batman's Fly Machines - Tammy Enz
- The Simple Science of Motion - Emily James