

CURRICULUM MAP

Subject: SCIENCE

Grade: 4TH

Quarter: 4th

Teacher(s): 4th Grade

Month _____	WEEK 1-2 _____	WEEK 3-4 _____	WEEK 5-6 _____	WEEK 7-8 _____	CCLA ELA STANDARDS: _____
<p>Concept (CCSS Standards)</p> <p><i>Italic Information: Recursive standard – repeated in at least one other quarter</i></p> <p>BOLD information: Standards that should be emphasized</p>	<p>Standard 4: Earth and Space Science</p> <p>4.4.8 Describe the seasonal changes that occur as a result of the Earth’s orbit around the Sun. EXAMPLE(S) wet and dry.</p> <p>Objectives:</p> <ul style="list-style-type: none"> -Use observation to infer weather condition -Analyze a graph of atmospheric conditions - a prediction based on observations of changes in the earth/moon system -Identify the results of a motion of Earth -Apply an understanding of the processes involved 	<p>Standard 4: Earth and Space Science</p> <p>4.4.4 Investigate and explain that air is a substance that surrounds us that takes up space and whose movements we feel as wind.</p> <p>Objectives:</p> <ul style="list-style-type: none"> -Use observations to infer weather conditions -Identify the results of motion of Earth - Predict the results of heat transfer in objects 	<p>Standard 4: Earth and Space Science</p> <p>4.4.7 Describe, compare, and contrast objects in the universe. EXAMPLE(S): solar systems, galaxies, stars</p> <p>Objectives:</p> <ul style="list-style-type: none"> -Use a model to apply an understanding of planet motion - characteristics -make an inference from a data of a star 	<p>Standard 4: Earth and Space Science</p> <p>4.5.2 Explain why some products and materials are easier to recycle than others.</p> <p>Objectives:</p> <ul style="list-style-type: none"> -Use observations to infer weather conditions -Identify the results of motion of Earth -Predict the results of heat transfer in objects 	<p>CCSS ELA Standards:</p> <p>4.RI.4 Determine the meaning of general academic and domain-^[SEP]words or phrases in a text relevant to a grade 4 topic or subject area. ^[SEP]</p> <p>4.RI.5 Describe the overall structure (e.g., chronology, comparison, ^[SEP]cepts, or ^[SEP]information in a text or part of a text. ^[SEP]</p> <p>4.W.7 Conduct short research projects that build knowledge through investigation of different aspects of a topic.</p> <p>4.W.10 Write routinely over extended time frames (time for research, audiences.</p>

<p>Vocabulary</p> <p>BIG IDEA:</p>	<p>Key Vocabulary:</p> <p>question, hypothesis, data, collect, analyze, conclusion, prediction, investigation, experiment, support, observation, inference, inquiry, solar system, patterns, relationships, planets, sun, comets, meteors, asteroids, compare, contrast</p> <p>Big Idea 1, Quarter 4</p> <p>Students will investigate and connect the relationships between the rotation of the earth around the sun, the solar system, and the changes of seasons.</p>	<p>Key Vocabulary:</p> <p>Question, hypothesis, data, collect, analyze, conclusion, prediction, investigation, experiment, support, observation, inference, inquiry, technology, impact</p> <p>Big Idea 1, Quarter 4</p> <p>Students will explain natural processes and events that shaped and continue to shape the earth.</p>	<p>Key Vocabulary:</p> <p>Question, hypothesis, data, collect, analyze, conclusion, prediction, investigation, experiment, support, observation, inference, inquiry, technology, impact</p> <p>Big Idea 1, Quarter 4</p> <p>Students will investigate and connect the relationships between the rotation of the earth around the sun, the solar system, and the changes of seasons.</p>	<p>Key Vocabulary:</p> <p>Question, hypothesis, data, collect, analyze, conclusion, prediction, investigation, experiment, support, observation, inference, inquiry, technology, impact</p> <p>Big Idea 1, Quarter 4</p> <p>Students will explain natural processes and events that shaped and continue to shape the earth.</p>	<p>New Prioritized Standards</p> <p>4.5.2</p> <p>4.4.4</p> <p>4.4.8 NON NEGOTIABLE</p> <p>4.5.1</p> <p>4.4.7</p>
<p>Assessment</p> <p>Resources:</p>	<p>Resources & Links to Technology</p> <p>Harcourt Grade 4, pp. x–xxiv</p> <p>Harcourt Grade 4 pp. x–xxiv and pp. D60–D93 ^[L]_[SEP]</p> <p>Experimental Design</p> <p>^[L]_[SEP] http://www.science-class.net/archive/science-class/Lessons/NOS/Ex1 design graphic organizer.pdf</p> <p>Nature of Science Game ^[L]_[SEP]</p> <p>https://reviewgamezone.com/site/subjects/nature-of-science-games.php</p>	<p>Resources & Links to Technology</p> <p>Harcourt Grade 4, pp. x–xxiv</p> <p>Harcourt Grade 4, pp. x–xxiv ^[L]_[SEP]</p> <p>Nature of Science Game ^[L]_[SEP]</p> <p>https://reviewgamezone.com/site/subjects/nature-of-science-games.php</p> <p>Bill Nye Episodes (Go) ^[L]_[SEP]</p> <p>http://billnye.com/for-kids-teachers/episode-guides/</p>	<p>Resources & Links to Technology</p> <p>Harcourt Grade 4 pp. x–xxiv and pp. D60–D93 ^[L]_[SEP]</p> <p>Experimental Design ^[L]_[SEP]</p> <p>Nature of Science Game ^[L]_[SEP]</p> <p>http://www.mysciencesite.com/motion_graphs.pdf</p> <p>https://phet.colorado.edu/en/simulation/moving-man</p>	<p>Resources & Links to Technology</p> <p>Harcourt Grade 4, pp. x–xxiv</p> <p>Harcourt Grade 4, pp. x–xxiv ^[L]_[SEP]</p> <p>Nature of Science Game ^[L]_[SEP]</p> <p>https://reviewgamezone.com/site/subjects/nature-of-science-games.php</p> <p>Bill Nye Episodes (Go) ^[L]_[SEP]</p> <p>http://billnye.com/for-kids-teachers/episode-guides/</p>	

<p>ESSENTIAL QUESTIONS</p>	<p>Essential Question(s):</p> <p>How are the objects in our universe the same and how are they different?</p> <p>How does the relationship between Earth and the sun affect our seasons?</p> <p>What constitutes a year on the various planets?</p> <p>Why are they different?</p> <p>What predictable observable pattern occurs as a result of the interaction between the earth, sun, and moon?</p>	<p>Essential Question(s):</p> <p>How do the location and landforms of Guam affect the weather and seasons?</p> <p>How is this different than other areas on the earth?</p> <p>In what ways is the Earth always changing? How do we know?</p> <p>How can atmospheric patterns be used to make predictions about the weather?</p>	<p>Essential Question(s):</p> <p>How are the objects in our universe the same and how are they different?</p> <p>How does the relationship between Earth and the sun affect our seasons?</p> <p>What constitutes a year on the various planets?</p> <p>Why are they different? What predictable observable pattern occurs as a result of the interaction between the earth, sun, and moon?</p>	<p>Essential Question(s):</p> <p>How do the various levels of technological development affect different cultures? How does technology impact our lives? How will technology change our future lives?</p>	
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Month _____	WEEK 9 _____	FINALS _____	SUPPORT STANDARDS _____	Instructional Strategies (District) _____	Instructional Strategies (District) _____
<p>Concept (CCSS Standards)</p>	<p>Standard 5: Science and Technology</p> <p>4.5.1 Describe how the use of technology has changed the way</p>	<p><i>Make up week</i></p> <p>4.5.1 Describe how the use of technology has changed the way</p> <p>Students will be conducting scientific investigations, either by reading and following directions or by creating their own investigations. Students will use This unit will have the students incorporate the Scientific Method into their learning for better understanding. The Scientific Method will continue to be used throughout the year. Students will . . .</p> <p>be able to create questions, develop a hypothesis, conduct an experiment, collect and analyze data, and come up with a conclusion supported by the data. [L] [SEP]</p> <p>learn that it is okay for their hypothesis not to be supported by the data. Oftentimes more is learned from not having a correct hypothesis. [L] [SEP]</p> <p>Investigate how technology has changed and will continue to change. [L] [SEP]</p> <p>discover how the technology has an impact on their lives, even if they are not using the technology. [L] [SEP]</p>	<p>CCSS ELA Support Standards</p> <p>Because students have been using their skills of reading and writing with nonfiction, they have enhanced their ability to read and write like scientists. They take what they glean from their readings and use it their writing skills to convey their understandings of the concepts.</p> <p>Students will continue to use the writing process to ensure that their writing is understandable and uses the correct grammar, spelling, punctuation, and conventions.</p>	<p>Instructional Strategies (EL, SIOP, SPED, Marzano)</p> <p>When students answer questions, you should elaborate on their answers to get them to focus and/or think at a higher level. When they write or draw in their journals or use any other method that demonstrates their understanding, it is important to give students remarks about their thinking and understanding of the concepts. Make comments to explicitly explain concepts and/or ask more questions for clarification, encourage higher- level thinking, and help students understand any misconceptions they may have obtained (Marzano: Providing Feedback.)</p> <p>This is a time to obtain information from students about their thinking and understanding. Cues and questions are meant as a way to gain this knowledge and help direct students (Marzano: Cues, questions, and graphic organizers)</p> <p>Students can use pictures of the various technologies and create a timeline showing how technology has changed over the years and built upon each other (Marzano: Nonlinguistic representations)</p> <p>Students will determine how technologies are the same and different. They will be able to show that many technologies had a relationship with previous technology; i.e. without an old technology, the new technology would not have come about so quickly or at all (Marzano: identifying similarities and differences)</p>	

Big Idea:	Students will compare and contrast how the use of technology has changed human behavior over time.				
Vocabulary:	question, hypothesis, data, collect, analyze, conclusion, prediction, investigation, experiment, support, observation, inference, inquiry, technology, impact				
Assessment /Resources	Resources & Links to Technology Harcourt Grade 4, pp. x–xxiv Inventions http://www.teachingideas.co.uk/dt/inventions History of Lighting http://americanhistory.si.edu/lighting/index.htm				

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