



SUMTER COUNTY INTERMEDIATE SCHOOL

Dr. April Smith, Principal

Mr. Jeffery Boges, Assistant Principal
Mr. Mohan Gugulothu, Assistant Principal

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

2020-2021 1st Nine Weeks Expectations 4th Grade Science

Unit 1 Stars & Planets

Students should be able to...

Obtain, evaluate, and communicate information to compare and contrast the physical attributes of stars and planets.

- Ask questions to compare and contrast technological advances that have changed the amount and type of information on distant objects in the sky.
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- Construct an argument on why some stars (including the Earth's sun) appear to be larger or brighter than others.
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- Construct an explanation of the differences between stars and planets.
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- Evaluate strengths and limitations of models of our solar system in describing relative size, order, appearance and composition of planets and the sun. (Clarification statement: Composition of planets is limited to rocky vs. gaseous.)

Unit 2 Moons

Obtain, evaluate, and communicate information to model the effects of the position and motion of the Earth and the moon in relation to the sun as observed from the Earth.

- Develop a model to support an explanation of why the length of day and night change throughout the year.
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- Develop a model based on observations to describe the repeating pattern of the phases of the moon (new, crescent, quarter, gibbous, and full).
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- Construct an explanation of how the Earth's orbit, with its consistent tilt, affects seasonal changes.

Math Focus Skills: MGSE4.NBT.3 (Rounding), MGSE4.NBT.4 (Adding & Subtraction)

Reading Focus Skills: ELAGSE4RI2 (Main Idea), ELAGSE4RI3 (Cause & Effect), ELAGSE4RI9 (Integrate Information from Text)



Fourth Grade Curriculum Map

These are bundles of core ideas from the Georgia Standards of Excellence for Fourth Grade related to an anchoring phenomenon. This document is part of a framework that includes lessons and resources.

Instructional Segment:	Weather and Moon Phases	Stars, Planets, and Moon	Forecasting the Weather	Role of Organisms and Flow of Energy	Light and Sound	Force and Motion
Estimated Time	4 week intro and then All Year	7 weeks	7 weeks	7 weeks	4 weeks	7 weeks
Crosscutting Concepts	<ul style="list-style-type: none"> Patterns Cause and Effect Systems and System Models 	<ul style="list-style-type: none"> Patterns Systems and System Models Scale, Proportion, and Quantity 	<ul style="list-style-type: none"> Patterns Energy and Matter System and System Models 	<ul style="list-style-type: none"> Energy and Matter Structure and Function 	<ul style="list-style-type: none"> Energy and Matter 	<ul style="list-style-type: none"> Energy and Matter Cause and Effect
Anchoring Phenomenon	<ul style="list-style-type: none"> What is the International Space Station? International Space Station 	<ul style="list-style-type: none"> Where is the edge of the Solar System? SpaceX CRS-12 Launches to the ISS 	<ul style="list-style-type: none"> What is Weather like in Space? NOAA's GOES-16 Satellite Sends 1st Images from Space 	<ul style="list-style-type: none"> Eating on the Space Station Dessert in Space 	<ul style="list-style-type: none"> Gazing at Earth's Light Show Light Language – look at picture of a reflection in water 	<ul style="list-style-type: none"> Small Rubie Goldberg Machines Dream of a world without machines - activity
Core Ideas	<ul style="list-style-type: none"> Cloud formation Weather Instruments Moon phases 	<ul style="list-style-type: none"> Technological advances for space Stars Planets Moon Phases Earth's orbit and tilt Light refraction 	<ul style="list-style-type: none"> States of water Water cycle Weather instruments Weather maps Cloud types Weather and climate 	<ul style="list-style-type: none"> Ecosystems Food chains/ webs Changes impacting ecosystems Scarcity, extinction, overabundance 	<ul style="list-style-type: none"> Opaque, transparent, translucent Reflection Refraction Strength and speed of sound vibration Communication device 	<ul style="list-style-type: none"> Balanced and unbalanced forces Gravitational force Simple machines
Science and Engineering Practices	<ul style="list-style-type: none"> Asking questions Analyzing and interpreting data Constructing explanations Obtaining, evaluating, and communicating models 	<ul style="list-style-type: none"> Asking questions and using models Developing explanations Engaging in argument from evidence Obtaining, evaluating, and communicating 	<ul style="list-style-type: none"> Ask questions Analyzing and interpreting data Constructing explanations Obtaining, evaluating, and communicating models Developing and using models Planning and carrying out investigations 	<ul style="list-style-type: none"> Asking questions and defining problems Developing and using models Constructing explanations and designing solutions Obtaining, evaluating, and communicating 	<ul style="list-style-type: none"> Asking questions Developing and using models Planning and carrying out investigations Designing solutions Obtaining, evaluating, and communicating 	<ul style="list-style-type: none"> Asking questions and defining problems Constructing an argument from evidence Developing and using models Analyzing and interpreting data Obtaining, evaluating, and communicating
GSE	S4E2b; S4E4a, c	S4E1a, b, c, d; S4E2a, b, c; S4P1c	S4E3a, b; S4E4a, b, c, d	S4L1a, b, c, d	S4P1a, b, c; S4P2a, b	S4P3a, b, c

4th Grade Science Pacing Guide Calendar
August 2020

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31					

Day 1
 Unit 1-Pretest
 Stars, Planets, and
 Moons

4th Grade Science Pacing Guide Calendar
September 2020

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
		1 Day 2 -- Planets	2	3	4 Day 3 -- Planets Activity	5
6	7 LABOR DAY	8 Day 4 -- Planets (Quiz 1)	9	10	11 Day 5 -- Planets Activity	12
13	14 Day 6 -- Planet Review	15 Day 7 -- Planet (Quiz 2)	16	17	18 Day 8 -- Assignment Catch-up (Planets)	19
20	21 Day 9 -- Stars (Types)	22 Day 9 - Stars (types)	23	24	25 Day 10 -- Stars types activity	26
27	28 Day 11 -- Size of Stars	29 Day 12 - Classification of Stars	30			

4th Grade Science Pacing Guide Calendar
October 2020

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
					1 Day 13 -- Stars (Quiz 3)	3
4	5 Day 14 -- Moon Phases	6 Day 15 -- Moon Phases	7	8	9 Day 16 -- Moon Phases (quiz 4)	10
11	12 Day 17 -- Moon Phases Review	13 Day 18 -- Moon Phases (Quiz 5)	14	15	16 Day 19 -- Assignment Catch-up	17
18	19 Day 20 -- Unit 1 Posttest	20	21	22	23	24
25	26	27	28	29	30	31