

GSE Science 4th Grade Curriculum Map 2020-2021

These are bundles of core ideas from the Georgia Standards of Excellence for Fourth Grade related to an anchoring phenomenon.

Instructional Segment:	Water Cycle and Forecasting the Weather	Stars and Planets	Earth and the Moon	Role of Organisms and Flow of Energy	Sound	Light	Forces and Motion
Estimated Time	9 weeks	5 weeks	4 weeks	4 weeks	5 weeks	4 weeks	5 weeks
Crosscutting Concepts	<ul style="list-style-type: none"> ● Patterns ● Energy and Matter 	<ul style="list-style-type: none"> ● Patterns ● Systems and System Models ● Scale, Proportion, and Quantity 	<ul style="list-style-type: none"> ● Patterns ● Cause and Effect ● Scale, Proportion, and Quantity ● Systems 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 	<ul style="list-style-type: none"> ● Energy and Matter ● Cause and Effect
Anchoring Phenomenon	<ul style="list-style-type: none"> ● <u>What is Weather like in Space?</u> ● <u>NOAA's GOES-16 Satellite Sends 1st Images from Space</u> 	<ul style="list-style-type: none"> ● <u>Where is the edge of the Solar System?</u> ● <u>Space X CRS-12 Launches to the ISS</u> 	<ul style="list-style-type: none"> ● <u>Seeing the Moon During the Day.</u> ● <u>Total Solar Eclipse</u> 	<ul style="list-style-type: none"> ● <u>Living on the Space Station</u> ● <u>Dessert in Space</u> 	<ul style="list-style-type: none"> ● <u>Singer shatters glass with his voice.</u> ● <u>Breaking Glass with Sound</u> ● <u>Visualizing vibrations using guitar strings</u> 	<ul style="list-style-type: none"> ● <u>Gazing at Earth's Light Show</u> ● <u>Light Language – look at picture of a reflection in water</u> 	<ul style="list-style-type: none"> ● <u>Small Rube Goldberg Machines</u> ● <u>Dream of a world without machines - activity</u>
Core Ideas	<ul style="list-style-type: none"> ● States of water ● Water cycle ● Weather instruments ● Weather maps ● Cloud types and formations ● Weather and climate 	<ul style="list-style-type: none"> ● Technological advances for space ● Stars ● Planets 	<ul style="list-style-type: none"> ● Moon phases ● Earth's orbit and tilt ● Light refraction 	<ul style="list-style-type: none"> ● Ecosystems ● Food chains/ webs ● Changes impacting ecosystems ● Scarcity, extinction, overabundance 	<ul style="list-style-type: none"> ● Strength and speed of sound vibration ● Communication device 	<ul style="list-style-type: none"> ● Opaque, transparent, translucent ● Reflection ● Refraction 	<ul style="list-style-type: none"> ● Balanced and unbalanced forces ● Gravitational force ● Simple machines
Science and Engineering Practices	<ul style="list-style-type: none"> ● Ask questions ● Analyzing and interpreting data ● Constructing explanations 	<ul style="list-style-type: none"> ● Asking questions ● Developing and using models ● Constructing explanations 	<ul style="list-style-type: none"> ● Asking questions ● Developing and using models ● Constructing explanations 	<ul style="list-style-type: none"> ● Asking questions and defining problems ● Developing and using models ● Constructing 	<ul style="list-style-type: none"> ● Asking questions ● Developing and using models ● Planning and carrying out investigations 	<ul style="list-style-type: none"> ● Asking questions ● Developing and using models ● Planning and carrying out investigations 	<ul style="list-style-type: none"> ● Asking questions and defining problems ● Constructing an argument from evidence

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	<ul style="list-style-type: none"> ● Obtaining, evaluating, and communicating ● Developing and using models ● Planning and carrying out investigations 	<ul style="list-style-type: none"> ● Engaging in argument from evidence ● Obtaining, evaluating, and communicating 	<ul style="list-style-type: none"> ● Engaging in argument from evidence ● Obtaining, evaluating, and communicating 	<ul style="list-style-type: none"> ● explanations and designing solutions ● Obtaining, evaluating, and communicating 	<ul style="list-style-type: none"> ● Designing solutions ● Obtaining, evaluating, and communicating 	<ul style="list-style-type: none"> ● Designing solutions ● Obtaining, evaluating, and communicating 	<ul style="list-style-type: none"> ● Developing and using models ● Analyzing and interpreting data ● Obtaining, evaluating, and communication
GSE	S4E3a,b; S4E4a, b, c, d	S4E1a, b, c, d	S4E2a, b, c	S4L1a, b, c, d	S4P2a, b	S4P1a, b, c	S4P3a, b, c