GSE Science 4th Grade Curriculum Map 2022-2023

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	• Patterns • Energy and Matter	• Patterns • Systems and System Models • Scale, Proportion, and Quantity	• Patterns • Cause and Effect • Scale, Proportion, and Quantity • Systems and System Models	• Energy and Matter • Structure and Function	● Energy and Matter	● Energy and Matter	● Energy and Matter ● Cause and Effect
Anchoring Phenomenon	• What is Weather like in Space? • NOAA's GOES-16 Satellite Sends 1st Images from Space	• Where is the edge of the Solar System? • Space X CRS-12 Launches to the ISS	• Seeing the Moon During the Day • Total Solar Eclipse	• Eating on the Space Station • Dessert in Space	• Singer shatters glass with his voice. • Breaking Glass with Sound • Visualizing vibrations using guitar strings	• Gazing at Earth's Light Show • Light Language – look at picture of a reflection in water	• Small Rube Goldberg Machines • Dream of a world without machines - activity
Core Ideas	• States of water • Water cycle • Weather instruments • Weather maps • Cloud types and formations • Weather and climate	• Technological advances for space • Stars • Planets	• Moon phases • Earth's orbit and tilt • Light refraction	• Ecosystems • Food chains/ webs • Changes impacting ecosystems • Scarcity, extinction, overabundance	• Strength and speed of sound vibration • Communication device	• Opaque, transparent, translucent • Reflection • Refraction	• Balanced and unbalanced forces • Gravitational force • Simple machines

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Science and Engineering Practices	● Ask questions ● Analyzing and interpreting data ● Constructing explanations ● Obtaining, evaluating, and communicating ● Developing and using models ● Planning and carrying out investigations	▪ Asking questions ▪ Developing and using models ▪ Constructing explanations ▪ Engaging in argument from evidence ▪ Obtaining, evaluating, and communicating	▪ Asking questions ▪ Developing and using models ▪ Constructing explanations ▪ Engaging in argument from evidence Obtaining, evaluating, and communicating	● Asking questions and defining problems ● Developing and using models ● Constructing explanations and designing solutions ● Obtaining, evaluating, and communicating	● Asking questions ● Developing and using models ● Planning and carrying out investigations ● Designing solutions ● Obtaining, evaluating, and communicating	● Asking questions ● Developing and using models ● Planning and carrying out investigations ● Designing solutions ▪ Obtaining, evaluating, and communicating	● Asking questions and defining problems ● Constructing an argument from evidence ● Developing and using models ● Analyzing and interpreting data ● Obtaining, evaluating, and communication
GSE	**S4E3**a,b; **S4E4**a, b, c, d	**S4E1**a, b, c, d	**S4E2**a, b, c	**S4L1**a, b, c, d	**S4P2**a, b	**S4P1**a, b, c	**S4P3**a, b, c