Cherokee County School District

GSE Science 4th Grade Pacing Guide

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	• Patterns • Cause and Effect • Systems and System Models	• Patterns • Systems and System Models • Scale, Proportion, and Quantity	• Patterns • Energy and Matter • System and System Models	• Energy and Matter • Structure and Function	• Energy and Matter	• Energy and Matter • Cause and Effect
Anchoring Phenomenon	• What is the International Space Station? • International Space Station	• Where is the edge of the Solar System? • SpaceX CRS-12 Launches to the ISS	• What is Weather like in Space? • NOAA's GOES-16 Satellite Sends 1st Images from Space	• Eating on the Space Station • Dessert in Space	• 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	• Cloud formation • Weather Instruments • Moon phases	• Technological advances for space • Stars • Planets • Moon Phases • Earth's orbit and tilt • Light refraction	• States of water • Water cycle • Weather instruments • Weather maps • Cloud types • Weather and climate	• Ecosystems • Food chains/ webs • Changes impacting ecosystems • Scarcity, extinction, overabundance	• Opaque, transparent, translucent • Reflection • Refraction • Strength and speed of sound vibration • Communication device	• Balanced and unbalanced forces • Gravitational force • Simple machines
Science and Engineering Practices	• Asking questions • Analyzing and interpreting data • Constructing explanations • Obtaining, evaluating, and communicating • Developing and using models	• Asking questions • Developing and using models • Constructing explanations • Engaging in argument from evidence • Obtaining, evaluating, and communicating	• Ask questions • Analyzing and interpreting data • Constructing explanations • Obtaining, evaluating, and communicating • Developing and using models • Planning and carrying out investigations	• 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 and defining problems • Constructing an argument from evidence • Developing and using models • Analyzing and interpreting data • Obtaining, evaluating, and communication
GSE	**S4E2**b; **S4E4**a, c	**S4E1**a, b, c, d; **S4E2**a, b, c; S**4P1**c	**S4E3**a, b; **S4E4**a, b, c, d	**S4L1**a, b, c, d	**S4P1**a, b, c; **S4P2**a, b	**S4P3**a, b, c