

GSE High School Physical Science Pacing Guide

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

This document is part of a framework that includes lessons and resources.

Instructional Segment	Introduction	Properties of Matter	Reactions	Energy	Force and Motion	Waves	Energy Capstone
Estimated Time	1 week	7 weeks	8 weeks	8 weeks	6 weeks	4 weeks	2 weeks
Crosscutting Concepts	All	<ul style="list-style-type: none"> Structure and function Patterns Scale, proportion and change Energy and matter 	<ul style="list-style-type: none"> Energy and matter Stability and change Energy and matter 	<ul style="list-style-type: none"> Energy and matter Systems and system models Stability and change Energy and matter 	<ul style="list-style-type: none"> Cause and effect Systems and system models Stability and change Energy and matter 	<ul style="list-style-type: none"> Patterns Energy and matter 	<ul style="list-style-type: none"> Systems and system models Cause and effect Energy and matter
Anchoring Phenomenon	Year-long phenomena: Operation of a car or rocket.						
	Operation of a car or rocket	Elements and compounds to make a car or rocket operate https://goo.gl/LODHSo	Changes in altitude affect gases, resulting in surprising effects https://goo.gl/mbgKv8	Turning on your classroom lights requires many transformations of energy https://goo.gl/9IIwL0	Car stop - seatbelts and airbags https://goo.gl/aiFnyY	Doppler Effect https://goo.gl/Gv6Mw7	Model and explain the operation of a car or rocket
Core Ideas	All	<ul style="list-style-type: none"> Structure of atoms and elements Trends in the Periodic Table Compounds: properties, bonds and naming 	<ul style="list-style-type: none"> Atomic and molecular motion Conservation of matter Solutions Acids and bases 	<ul style="list-style-type: none"> Heat energy Electricity and magnetism Nuclear energy Fission and fusion Radioactive decay Energy transformations 	<ul style="list-style-type: none"> Forces and motion Newton's laws Simple machines Gravitational force Energy 	<ul style="list-style-type: none"> Electromagnetic and mechanical waves Reflection, refraction, interference, and diffraction Doppler effect Energy 	All
Science and Engineering Practices	Obtaining, evaluating, and communicating information						
	<ul style="list-style-type: none"> Plan and carry out investigations Ask questions Develop and use models 	<ul style="list-style-type: none"> Develop and use models Analyze and interpret data Construct explanations 	<ul style="list-style-type: none"> Plan and carry out investigations Develop and use models Ask questions and design problems Analyze and interpret data Construct explanations 	<ul style="list-style-type: none"> Develop and use models Use mathematical and computational thinking Engage in argument from evidence Construct explanations Analyze and interpret data Plan and carry out investigations 	<ul style="list-style-type: none"> Plan and carry out investigations Construct explanations Analyze and interpret data Use mathematical and computational thinking 	<ul style="list-style-type: none"> Analyze and interpret data Ask questions Develop and use models Construct explanations 	All
GSE	All	SPS1a,b,c; SPS2a,b,c; SPS7a	SPS5a,b; SPS3a,b; SPS6a,b,c,d,e; SPS7a	SPS4a,b,c; SPS10a,b,c; SPS7a,b,c,d	SPS7a; SPS8a,b,c,d	SPS7a; SPS9a,b,c,d,e	All