

SCOPE AND SEQUENCE FOR MIDDLE SCHOOL SCIENCE

BrainPOP Science is a phenomenon-driven middle school science product that provides robust investigations, units, embedded assessments, and actionable diagnostics for 6-8th grade across Physical, Life, and Earth & Space Science.

INSTRUCTIONAL COVERAGE

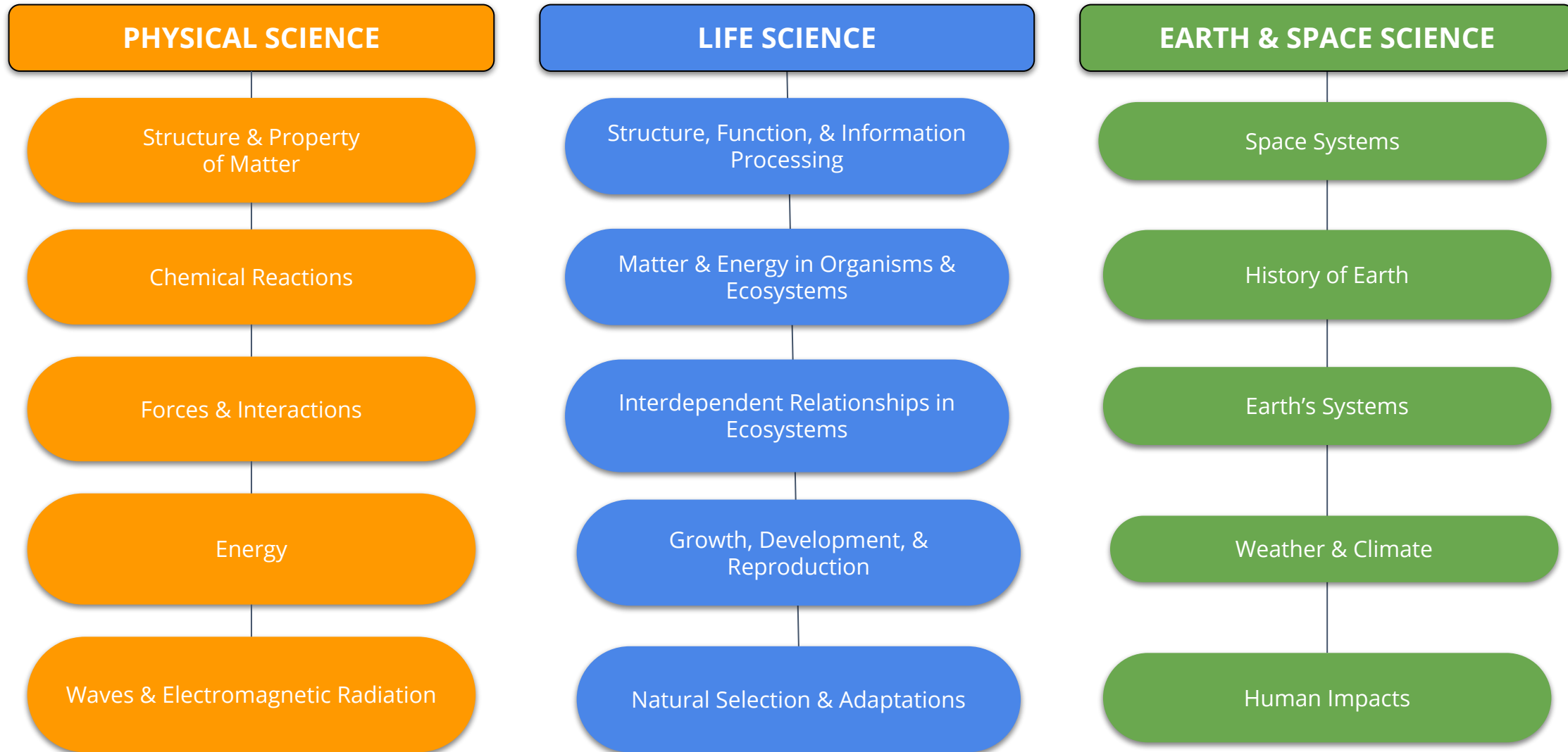
23 weeks of instruction includes 2+ investigations per unit and one engineering investigation per grade.

ASSESSMENT COVERAGE

Embedded formative assessments and unit-level summative assessments to drive student mastery.

Our 15 modular units incorporate all dimensions of 3D Learning and is aligned to the 5E instructional model. Our flexible design allows science teachers to choose the timing and order in which you complete units to align with and enhance your science curriculum.

BrainPOP Science is aligned to the Next Generation Science Standards (NGSS) and select state standards. Full standards coverage will be available by early 2022. Our scope and sequence is focused on performance expectations that are arranged by domain, unifying topic and sequenced intentionally.



Physical Science | 5 Units, 32 Investigations

Unit	Waves	Structure & Property of Matter	Chemical Reactions	Forces and Interactions	Energy
Investigations	Wave Properties	Atoms and Molecules	Chemical Reactions	Introduction to Newton's Laws	Kinetic and Potential Energy
	Sound Waves	Water Molecules	Conservation of Mass	Newton's 3rd Law	Water Power
	Electromagnetic Waves	States of Matter	Energy in Chemical Reactions	Combining Forces	Temperature average Kinetic Energy
	Light Properties	Phase Changes	Heat Pack (Engineering Challenge)	Newton's 2nd Law	Conservation of Energy
	Refraction and Reflection	Properties of Matter		Magnetic Forces: Repulsive and Attractive Forces	Energy and Forces (Work)
	Transmission and Absorption	Physical vs Chemical Properties		Electromagnets	
	Rainbows	Mixtures		Electromagnetic Engineering Solution	
		Thermal Energy		Gravitational Forces	

Life Science | 5 Units, 24 Investigations

Unit	Structure, Function, & Information Processing	Matter & Energy in Organisms & Ecosystems	Interdependent Relationships in Ecosystems	Growth, Development, & Reproduction	Natural Selection & Adaptations
Investigations	<p>All Living Things Are Made up of Cells</p> <p>Cell Structure and Function</p> <p>Cell Membranes</p> <p>Multicellular Organisms: Systems and subsystems</p> <p>Body Systems</p> <p>Application: Connection Between Nerve Cells and Brain</p>	<p>Photosynthesis</p> <p>Cellular Respiration</p> <p>Ecosystem Interactions</p> <p>Resources and Limitations Within an Ecosystem</p> <p>Food Chains or Food Webs</p> <p>Ecosystem Disruptions</p>	<p>Predator, Prey, and Mutually Beneficial Interactions</p> <p>Biodiversity</p> <p>Impact of Biodiversity of Resources</p> <p>Aquatic Invasive Species</p>	<p>Sexual and asexual reproduction</p> <p>Pollination</p> <p>Genes (traits of organisms)</p> <p>Gene Mutations</p> <p>Artificial Selection</p>	<p>Evidence of Common Ancestry (Evolution)</p> <p>Natural Selection</p> <p>Adaptations by Natural Selection</p>

Earth & Space Science | 5 Units, 26 Investigations

Unit	History of Earth	Earth's Systems	Weather & Climate	Human Impacts	Space Systems
Investigations	<ul style="list-style-type: none"> Geologic Time Relative Dating Evidence of Plate Tectonics Plate Boundaries Making Mountains Earthquakes Volcanoes Erosion and Weathering Natural Hazards 	<ul style="list-style-type: none"> Formation of Minerals Rock Cycle Water Cycle Renewable and Non-Renewable Resources Alternative Energies 	<ul style="list-style-type: none"> Weather vs Climate Weather Patterns Extreme Weather The Ocean's Role/Impact on Weather Global Climate Change Human Impacts on Climate Change Impacts of Climate Change 	<ul style="list-style-type: none"> Natural Hazards and Risk Mitigation Human impacts on Living Things Human Use of Natural Resources 	<ul style="list-style-type: none"> Earth, Sun, Moon System Moon Phases and Eclipses Orbital Motions - Planets and Moons (Gravity) Milky Way Earth's Seasons

BrainPOP Science

Scope & Sequence **by Grade Level**

6-8th Grade Alignment

6th Grade | 5 Units, 34 Investigations

Discipline	Physical Science	Life Science	Earth & Space Science		
Unit	Waves	Structure, Function, & Information Processing	History of Earth	Earth's Systems	Weather & Climate
Investigations	<ul style="list-style-type: none"> Wave Properties Sound Waves Electromagnetic Waves Light Properties Refraction and Reflection Transmission and Absorption Rainbows 	<ul style="list-style-type: none"> All Living Things Are Made up of Cells Cell Structure and Function Cell Membranes Multicellular Organisms: Systems and subsystems Body Systems Application: Connection Between Nerve Cells and Brain 	<ul style="list-style-type: none"> Geologic Time Relative Dating Evidence of Plate Tectonics Plate Boundaries Making Mountains Earthquakes Volcanoes Erosion and Weathering Natural Hazards 	<ul style="list-style-type: none"> Formation of Minerals Rock Cycle Water Cycle Renewable and Non-Renewable Resources Alternative Energies 	<ul style="list-style-type: none"> Weather vs Climate Weather Patterns Extreme Weather The Ocean's Role/Impact on Weather Global Climate Change Human Impacts on Climate Change Impacts of Climate Change

7th Grade | 5 Units, 25 Investigations

Discipline	Physical Science		Earth & Space Science	Life Science	
Unit	Structure & Property of Matter	Chemical Reactions	Human Impacts	Matter & Energy in Organisms & Ecosystems	Interdependent Relationships in Ecosystems
Investigations	<ul style="list-style-type: none"> • Atoms and Molecules • Water Molecules • States of Matter • Phase Changes • Properties of Matter • Physical vs Chemical Properties • Mixtures • Thermal Energy 	<ul style="list-style-type: none"> • Chemical Reactions • Conservation of Mass • Energy in Chemical Reactions • Heat Pack (Engineering Solution) 	<ul style="list-style-type: none"> • Natural Hazards and Risk Mitigation • Human impacts on Living Things • Human Use of Natural Resources 	<ul style="list-style-type: none"> • Photosynthesis • Cellular Respiration • Ecosystem Interactions • Resources and Limitations Within an Ecosystem • Food Chains or Food Webs • Ecosystem Disruptions 	<ul style="list-style-type: none"> • Predator, Prey, and Mutually Beneficial Interactions • Biodiversity • Impact of Biodiversity of Resources • Aquatic Invasive Species

8th Grade | 5 Units, 26 Investigations

Discipline	Physical Science		Life Science		Earth and Space Science
Unit	Forces and Interactions	Energy	Growth, Development, & Reproduction	Natural Selection & Adaptations	Space Systems
Investigations	<ul style="list-style-type: none"> • Introduction to Newton's Laws • Newton's 3rd Law • Combining Forces • Newton's 2nd Law • Magnetic Forces: Repulsive and Attractive Forces • Electromagnets • Electromagnetic Engineering Solution • Gravitational Forces 	<ul style="list-style-type: none"> • Kinetic and Potential Energy • Water Power • Temperature average Kinetic Energy • Conservation of Energy • Energy and Forces (Work) 	<ul style="list-style-type: none"> • Sexual and asexual reproduction • Pollination • Genes (traits of organisms) • Gene Mutations • Artificial Selection 	<ul style="list-style-type: none"> • Evidence of Common Ancestry (Evolution) • Natural Selection • Adaptations by Natural Selection 	<ul style="list-style-type: none"> • Earth, Sun, Moon System • Moon Phases and Eclipses • Orbital Motions - Planets and Moons (Gravity) • Milky Way • Earth's Seasons

Become a BrainPOP Science Early Adopter

Starting August 2021, schools and districts can become early adopters of our new middle school science solution. You receive exclusive access to new content and features throughout the 2021-22 school year and have the opportunity to work with our team to inform future product enhancements.

The following units and features are available on August 1, 2021*

8TH GRADE

UNIT: FORCES AND INTERACTIONS

3 Investigations

Introduction to Newton's Laws
Magnetic Forces
Electromagnets

4 Assessments

3 Formative Assessments
("Check for Understanding")

1 Unit-Level Summative
Assessment

8TH GRADE

UNIT: ENERGY

2 Investigations

Kinetic and Potential Energy
Water Power

3 Assessments

2 CFU
1 Unit-Level

7TH GRADE

UNIT: STRUCTURE AND PROPERTIES OF MATTER

3 Investigations

Water Molecules
States of Matter
Properties of Matter

4 Assessments

3 CFU
1 Unit-Level

6TH GRADE

UNIT: WAVES

2 Investigations

Rainbows
Properties of Light

3 Assessments

2 CFU
1 Unit-Level