

5th Grade Science Scope & Sequence

150 school days • 11 units • 19 TEKS standards

Matter	16 days	5.6A, 5.6D
Mixtures & Solutions	16 days	5.6B, 5.6C
Force & Motion	16 days	5.7A, 5.7B
Energy	16 days	5.8A, 5.8B
Light	8 days	5.8C
Space	8 days	5.9
Water Cycle	8 days	5.10A
Earth Science	16 days	5.10B, 5.10C
Natural Resources and the Environment	8 days	5.11
Ecosystems	22 days	5.12A, 5.12B, 5.12C
Structures & Behaviors	16 days	5.13A, 5.13B

A Note from Chris

Before you jump into the calendar, a couple of things from me.

This guide is built around 150 instructional days, not the 175 sitting on your contract. You and I both know how many of those days quietly disappear. The STAAR science test, benchmark testing, assemblies, picture day, the fire drill that swallows your whole science block. I left that cushion on purpose, and since 5th grade is a STAAR science year, the heavy content sits up front so you bank real review time before the test.

The order isn't random. We open with matter, mixtures, force, and energy while everybody's still fresh, move through light, space, the water cycle, and Earth science, then finish the year with natural resources, ecosystems, and how living things are built. Each unit gives the next one something to stand on.

And you know your kids and your campus calendar way better than I ever will. If your district teaches ecosystems in the fall, move it there. If light fits better right after energy, go for it. Treat this like a roadmap. You're still the one driving.

Let's go have a great year.

ACTIVITY TYPE KEY (USED IN DAY-BY-DAY TABLES)

- Engagement
- Station Lab
- Presentation + INB
- Inquiry Lab
- Assessment
- Amazing Anchors
- Reading
- Writing Prompt
- WIKI Ticket
- Escape Room
- Student Choice
- Project



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1

Matter

16 days 2 standards: 5.6A, 5.6D

CONTENT STANDARDS

TEKS 5.6A

Compare and contrast matter based on measurable, testable, or observable physical properties, including mass, magnetism, relative density (sinking and floating using water as a reference point), physical state (solid, liquid, gas), volume, solubility in water, and the ability to conduct or insulate thermal energy and electric energy

TEKS 5.6D

Illustrate how matter is made up of particles that are too small to be seen such as air in a balloon

KEY VOCABULARY

matter	physical properties
mass	magnetism
physical state	volume
relative density	solubility
conductivity	insulate
atom	molecules
states of matter	solid
liquid	gas
model	

SUGGESTED RECURRING THEMES

5.5C Use scale, proportion, and quantity to compare or model systems

5.5E Analyze how energy flows and matter cycles through systems

SUGGESTED SCIENCE & ENGINEERING PRACTICES

5.1G Develop and use models to represent phenomena and systems

5.3A Develop explanations and propose solutions supported by data and models

5.4B Make informed decisions by evaluating evidence from multiple sources

DAY-BY-DAY PACING

MON	TUE	WED	THU	FRI
Day 1 Compare & Contrast Matter ENGAGEMENT	Day 2 Compare & Contrast Matter STATION LAB (INPUT)	Day 3 Compare & Contrast Matter STATION LAB (OUTPUT)	Day 4 Compare & Contrast Matter PRESENTATION + INB	Day 5 Compare & Contrast Matter PRESENTATION + INB Classifying Matter WIKI TICKET
Day 6 Compare & Contrast Matter STUDENT CHOICE	Day 7 Compare & Contrast Matter STUDENT CHOICE	Day 8 Compare & Contrast Matter STUDENT CHOICE	Day 9 Compare & Contrast Matter ASSESSMENT	Day 10 Illustrating Particles of Matter ENGAGEMENT
Day 11 Illustrating Particles of Matter STATION LAB (INPUT)	Day 12 Illustrating Particles of Matter STATION LAB (OUTPUT)	Day 13 Illustrating Particles of Matter PRESENTATION + INB	Day 14 Illustrating Particles of Matter PARTICLES OF MATTER PRESENTATION + INB WIKI TICKET	Day 15 Particles of Matter WRITING PROMPT
Day 16 Illustrating Particles of Matter ASSESSMENT				



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2

Mixtures & Solutions

16 days 2 standards: 5.6B, 5.6C

CONTENT STANDARDS

TEKS 5.6B

Demonstrate and explain that some mixtures maintain physical properties of their substances such as iron filings and sand or sand and water

TEKS 5.6C

Compare the properties of substances before and after they are combined into a solution and demonstrate that matter is conserved in solutions

KEY VOCABULARY

mixture	physical property
sorting	sifting
filtration	evaporation
solution	matter
conserved	

SUGGESTED RECURRING THEMES

5.5E Analyze how energy flows and matter cycles through systems

5.5G Explain how factors or conditions impact stability and change

SUGGESTED SCIENCE & ENGINEERING PRACTICES

5.2A Identify advantages and limitations of models

5.2C Use mathematical calculations to assess quantitative relationships

5.3A Develop explanations and propose solutions supported by data and models

DAY-BY-DAY PACING

MON	TUE	WED	THU	FRI
Day 1 Properties of Mixtures ENGAGEMENT	Day 2 Properties of Mixtures STATION LAB (INPUT)	Day 3 Properties of Mixtures STATION LAB (OUTPUT)	Day 4 Properties of Mixtures PRESENTATION + INB	Day 5 Properties of Mixtures PRESENTATION + INB Mixtures WIKI TICKET
Day 6 Mixtures WRITING PROMPT	Day 7 Properties of Mixtures ASSESSMENT	Day 8 Properties of Solutions ENGAGEMENT	Day 9 Properties of Solutions STATION LAB (INPUT)	Day 10 Properties of Solutions STATION LAB (OUTPUT)
Day 11 Properties of Solutions PRESENTATION + INB	Day 12 Properties of Solutions PRESENTATION + INB Solutions WIKI TICKET	Day 13 Properties of Solutions STUDENT CHOICE	Day 14 Properties of Solutions STUDENT CHOICE	Day 15 Properties of Solutions STUDENT CHOICE
Day 16 Properties of Solutions ASSESSMENT				



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Force & Motion

16 days 2 standards: 5.7A, 5.7B

CONTENT STANDARDS

TEKS 5.7A

Investigate and explain how equal and unequal forces acting on an object cause patterns of motion and transfer of energy

TEKS 5.7B

Design a simple experimental investigation that tests the effect of force on an object in a system such as a car on a ramp or a balloon rocket on a string

KEY VOCABULARY

force	equal force
unequal force	pattern
energy transfer	experiment
investigation	observation
independent variable	dependent variable
trial	applied force
gravity	friction
magnetism	

SUGGESTED RECURRING THEMES

5.5B Identify and investigate cause-and-effect relationships

5.5E Analyze how energy flows and matter cycles through systems

SUGGESTED SCIENCE & ENGINEERING PRACTICES

5.1A Ask questions and define problems based on observations

5.2B Analyze data by identifying patterns, features, and sources of error

DAY-BY-DAY PACING

MON	TUE	WED	THU	FRI
Day 1 Equal & Unequal Forces ENGAGEMENT	Day 2 Equal & Unequal Forces STATION LAB (INPUT)	Day 3 Equal & Unequal Forces STATION LAB (OUTPUT)	Day 4 Equal & Unequal Forces PRESENTATION + INB	Day 5 Equal & Unequal Forces PRESENTATION + INB
Day 6 Equal & Unequal Forces STUDENT CHOICE	Day 7 Equal & Unequal Forces STUDENT CHOICE	Day 8 Equal & Unequal Forces STUDENT CHOICE	Day 9 Equal & Unequal Forces ASSESSMENT	Day 10 Test Force Effects in a System ENGAGEMENT
Day 11 Test Force Effects in a System STATION LAB (INPUT)	Day 12 Test Force Effects in a System STATION LAB (OUTPUT)	Day 13 Test Force Effects in a System PRESENTATION + INB	Day 14 Test Force Effects in a System PRESENTATION + INB Testing Forces WIKI TICKET	Day 15 Testing Forces WRITING PROMPT
Day 16 Test Force Effects in a System ASSESSMENT				



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Energy

16 days 2 standards: 5.8A, 5.8B

CONTENT STANDARDS

TEKS 5.8A

Investigate and describe the transformation of energy in systems such as energy in a flashlight battery that changes from chemical energy to electrical energy to light energy

TEKS 5.8B

Demonstrate that electrical energy in complete circuits can be transformed into motion, light, sound, or thermal energy and identify the requirements for a functioning electrical circuit

KEY VOCABULARY

energy	system
transformation	
mechanical energy	chemical energy
electrical energy	thermal energy
sound energy	electricity
closed circuit	open circuit
path	load
switch	energy source
insulator	conductor

SUGGESTED RECURRING THEMES

5.5D Examine and model the parts of a system and their interdependence

5.5E Analyze how energy flows and matter cycles through systems

SUGGESTED SCIENCE & ENGINEERING PRACTICES

5.1B Plan and conduct descriptive, comparative, and experimental investigations

5.3B Communicate explanations and solutions in a variety of formats

DAY-BY-DAY PACING

MON	TUE	WED	THU	FRI
Day 1 Describe Energy Transformations ENGAGEMENT	Day 2 Describe Energy Transformations STATION LAB (INPUT)	Day 3 Describe Energy Transformations STATION LAB (OUTPUT)	Day 4 Describe Energy Transformations PRESENTATION + INB	Day 5 Describe Energy Transformations PRESENTATION + INB
Day 6 Describe Energy Transformations STUDENT CHOICE	Day 7 Describe Energy Transformations STUDENT CHOICE	Day 8 Describe Energy Transformations STUDENT CHOICE	Day 9 Describe Energy Transformations ASSESSMENT	Day 10 Electrical Circuits ENGAGEMENT
Day 11 Electrical Circuits STATION LAB (INPUT)	Day 12 Electrical Circuits STATION LAB (OUTPUT)	Day 13 Electrical Circuits PRESENTATION + INB	Day 14 Electrical Circuits PRESENTATION + INB Closed Circuits WIKI TICKET	Day 15 Closed Circuits WRITING PROMPT
Day 16 Electrical Circuits ASSESSMENT				



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Light

8 days 1 standard: 5.8C

CONTENT STANDARDS

TEKS 5.8C

Demonstrate and explain how light travels in a straight line and can be reflected, refracted, or absorbed

KEY VOCABULARY

light medium

reflection refraction

absorption

SUGGESTED RECURRING THEMES

5.5C Use scale, proportion, and quantity to compare or model systems

5.5F Explain the relationship between structure and function

SUGGESTED SCIENCE & ENGINEERING PRACTICES

5.2D Evaluate experimental and engineering designs

5.4B Make informed decisions by evaluating evidence from multiple sources

DAY-BY-DAY PACING

MON	TUE	WED	THU	FRI
Day 1 How Light Travels ENGAGEMENT	Day 2 How Light Travels STATION LAB (INPUT)	Day 3 How Light Travels STATION LAB (OUTPUT)	Day 4 How Light Travels PRESENTATION + INB	Day 5 How Light Travels PRESENTATION + INB Reflection & Refraction WIKI TICKET
Day 6 How Light Travels STUDENT CHOICE	Day 7 How Light Travels STUDENT CHOICE	Day 8 How Light Travels ASSESSMENT		



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Space

8 days 1 standard: 5.9

CONTENT STANDARDS

TEKS 5.9

Demonstrate that Earth rotates on its axis once approximately every 24 hours and explain how that causes the day/night cycle and the appearance of the Sun moving across the sky, resulting in changes in shadow positions and shapes

KEY VOCABULARY

axis rotation

day night

shadow horizon

SUGGESTED RECURRING THEMES

5.5A Identify and apply patterns to explain phenomena or design solutions

5.5F Explain the relationship between structure and function

SUGGESTED SCIENCE & ENGINEERING PRACTICES

5.2A Identify advantages and limitations of models

5.2C Use mathematical calculations to assess quantitative relationships

DAY-BY-DAY PACING

MON	TUE	WED	THU	FRI
Day 1 Day & Night Cycle ENGAGEMENT	Day 2 Day & Night Cycle STATION LAB (INPUT)	Day 3 Day & Night Cycle STATION LAB (OUTPUT)	Day 4 Day & Night Cycle PRESENTATION + INB	Day 5 Day & Night Cycle PRESENTATION + INB Earth's Rotation WIKI TICKET
Day 6 Day & Night Cycle STUDENT CHOICE	Day 7 Day & Night Cycle STUDENT CHOICE	Day 8 Day & Night Cycle ASSESSMENT		



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Water Cycle

8 days 1 standard: 5.10A

CONTENT STANDARDS

TEKS 5.10A

Explain how the Sun and the ocean interact in the water cycle and affect weather

KEY VOCABULARY

states of matter	water cycle
evaporation	precipitation
condensation	transpiration
groundwater	runoff
water vapor	

SUGGESTED RECURRING THEMES

5.5D Examine and model the parts of a system and their interdependence

SUGGESTED SCIENCE & ENGINEERING PRACTICES

5.1A Ask questions and define problems based on observations
5.3B Communicate explanations and solutions in a variety of formats

DAY-BY-DAY PACING

MON	TUE	WED	THU	FRI
Day 1 Sun & Ocean Interactions ENGAGEMENT	Day 2 Sun & Ocean Interactions STATION LAB (INPUT)	Day 3 Sun & Ocean Interactions STATION LAB (OUTPUT)	Day 4 Sun & Ocean Interactions PRESENTATION + INB	Day 5 Sun & Ocean Interactions PRESENTATION + INB Water Cycle WIKI TICKET
Day 6 Sun & Ocean Interactions STUDENT CHOICE	Day 7 Sun & Ocean Interactions STUDENT CHOICE	Day 8 Sun & Ocean Interactions ASSESSMENT		



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Earth Science

16 days 2 standards: 5.10B, 5.10C

CONTENT STANDARDS

TEKS 5.10B

Model and describe the processes that led to the formation of sedimentary rocks and fossil fuels

TEKS 5.10C

Model and identify how changes to Earth's surface by wind, water, or ice result in the formation of landforms, including deltas, canyons, and sand dunes

KEY VOCABULARY

sedimentary rock weathering

erosion deposition

compaction cementation

landforms sand dunes

canyons deltas

u-shaped valleys

SUGGESTED RECURRING THEMES

5.5A Identify and apply patterns to explain phenomena or design solutions

5.5D Examine and model the parts of a system and their interdependence

SUGGESTED SCIENCE & ENGINEERING PRACTICES

5.1G Develop and use models to represent phenomena and systems

5.2D Evaluate experimental and engineering designs

5.4A Relate how research and innovation shape scientific thought and society

DAY-BY-DAY PACING

MON	TUE	WED	THU	FRI
Day 1 Sedimentary Rock Formation ENGAGEMENT	Day 2 Sedimentary Rock Formation STATION LAB (INPUT)	Day 3 Sedimentary Rock Formation STATION LAB (OUTPUT)	Day 4 Sedimentary Rock Formation PRESENTATION + INB	Day 5 Sedimentary Rock Formation PRESENTATION + INB Sedimentary Rocks & Fossil Fuels WIKI TICKET
Day 6 Sedimentary Rock Formation STUDENT CHOICE	Day 7 Sedimentary Rock Formation STUDENT CHOICE	Day 8 Sedimentary Rock Formation STUDENT CHOICE	Day 9 Sedimentary Rock Formation ASSESSMENT	Day 10 Modeling Landform Formation ENGAGEMENT
Day 11 Modeling Landform Formation STATION LAB (INPUT)	Day 12 Modeling Landform Formation STATION LAB (OUTPUT)	Day 13 Modeling Landform Formation PRESENTATION + INB	Day 14 Modeling Landform Formation PRESENTATION + INB Changes to Earth's Surface WIKI TICKET	Day 15 Changes to Earth's Surface WRITING PROMPT
Day 16 Modeling Landform Formation ASSESSMENT				



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Natural Resources and the Environment

8 days 1 standard: 5.11

CONTENT STANDARDS

TEKS 5.11

Design and explain solutions such as conservation, recycling, or proper disposal to minimize environmental impact of the use of natural resources

KEY VOCABULARY

renewable	nonrenewable
resources	efficient
conserve	reuseable
recycling	disposal
environmental impacts	landfills

SUGGESTED RECURRING THEMES

5.5B Identify and investigate cause-and-effect relationships

SUGGESTED SCIENCE & ENGINEERING PRACTICES

5.1B Plan and conduct descriptive, comparative, and experimental investigations
5.3C Engage respectfully in scientific argumentation using evidence
5.4A Relate how research and innovation shape scientific thought and society

DAY-BY-DAY PACING

MON	TUE	WED	THU	FRI
Day 1 Minimizing Environmental Impact ENGAGEMENT	Day 2 Minimizing Environmental Impact STATION LAB (INPUT)	Day 3 Minimizing Environmental Impact STATION LAB (OUTPUT)	Day 4 Minimizing Environmental Impact PRESENTATION + INB	Day 5 Minimizing Environmental Impact PRESENTATION + INB
Day 6 Minimizing Environmental Impact STUDENT CHOICE	Day 7 Minimizing Environmental Impact STUDENT CHOICE	Day 8 Minimizing Environmental Impact ASSESSMENT		



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10

Ecosystems

22 days 3 standards: 5.12A, 5.12B, 5.12C

CONTENT STANDARDS

TEKS 5.12A

Observe and describe how a variety of organisms survive by interacting with biotic and abiotic factors in a healthy ecosystem

TEKS 5.12B

Predict how changes in the ecosystem affect the cycling of matter and flow of energy in a food web

TEKS 5.12C

Describe a healthy ecosystem and how human activities can be beneficial or harmful to an ecosystem

KEY VOCABULARY

organism	abiotic
biotic	ecosystem
matter	energy
food web	beneficial
harmful	pollutants

SUGGESTED RECURRING THEMES

- 5.5A** Identify and apply patterns to explain phenomena or design solutions
- 5.5D** Examine and model the parts of a system and their interdependence
- 5.5G** Explain how factors or conditions impact stability and change

SUGGESTED SCIENCE & ENGINEERING PRACTICES

- 5.2B** Analyze data by identifying patterns, features, and sources of error
- 5.1G** Develop and use models to represent phenomena and systems
- 5.1A** Ask questions and define problems based on observations

DAY-BY-DAY PACING

MON	TUE	WED	THU	FRI
Day 1 Biotic & Abiotic Interactions ENGAGEMENT	Day 2 Biotic & Abiotic Interactions STATION LAB (INPUT)	Day 3 Biotic & Abiotic Interactions STATION LAB (OUTPUT)	Day 4 Biotic & Abiotic Interactions PRESENTATION + INB	Day 5 Biotic & Abiotic Interactions PRESENTATION + INB
Day 6 Biotic & Abiotic Interactions ASSESSMENT	Day 7 Predicting Changes in Ecosystems ENGAGEMENT	Day 8 Predicting Changes in Ecosystems STATION LAB (INPUT)	Day 9 Predicting Changes in Ecosystems STATION LAB (OUTPUT)	Day 10 Predicting Changes in Ecosystems PRESENTATION + INB
Day 11 Predicting Changes in Ecosystems PRESENTATION + INB Changes in Ecosystems WIKI TICKET	Day 12 Changes in Ecosystems WRITING PROMPT	Day 13 Predicting Changes in Ecosystems ASSESSMENT	Day 14 Human Activities & Ecosystems ENGAGEMENT	Day 15 Human Activities & Ecosystems STATION LAB (INPUT)



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Ecosystems

Day-by-Day Pacing (continued)

MON	TUE	WED	THU	FRI
Day 16 Human Activities & Ecosystems STATION LAB (OUTPUT)	Day 17 Human Activities & Ecosystems PRESENTATION + INB	Day 18 Human Activities & Ecosystems PRESENTATION + INB	Day 19 Human Activities & Ecosystems STUDENT CHOICE	Day 20 Human Activities & Ecosystems STUDENT CHOICE
Day 21 Human Activities & Ecosystems ASSESSMENT				



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Structures & Behaviors

16 days 2 standards: 5.13A, 5.13B

CONTENT STANDARDS

TEKS 5.13A

Analyze the structures and functions of different species to identify how organisms survive in the same environment

TEKS 5.13B

Explain how instinctual behavioral traits such as turtle hatchlings returning to the sea and learned behavioral traits such as orcas hunting in packs increase chances of survival

KEY VOCABULARY

organism	structure
function	behavior
habitat	environment
instinct	learned behaviors
trait	migrate

SUGGESTED RECURRING THEMES

5.5D Examine and model the parts of a system and their interdependence

SUGGESTED SCIENCE & ENGINEERING PRACTICES

5.3A Develop explanations and propose solutions supported by data and models

5.3C Engage respectfully in scientific argumentation using evidence

DAY-BY-DAY PACING

MON	TUE	WED	THU	FRI
Day 1 Organism Structures & Functions ENGAGEMENT	Day 2 Organism Structures & Functions STATION LAB (INPUT)	Day 3 Organism Structures & Functions STATION LAB (OUTPUT)	Day 4 Organism Structures & Functions PRESENTATION + INB	Day 5 Organism Structures & Functions PRESENTATION + INB Structures & Behaviors WIKI TICKET
Day 6 Structures & Behaviors WRITING PROMPT	Day 7 Organism Structures & Functions ASSESSMENT	Day 8 Behavioral Traits ENGAGEMENT	Day 9 Behavioral Traits STATION LAB (INPUT)	Day 10 Behavioral Traits STATION LAB (OUTPUT)
Day 11 Behavioral Traits PRESENTATION + INB	Day 12 Behavioral Traits PRESENTATION + INB Traits & Behaviors WIKI TICKET	Day 13 Behavioral Traits STUDENT CHOICE	Day 14 Behavioral Traits STUDENT CHOICE	Day 15 Behavioral Traits STUDENT CHOICE
Day 16 Behavioral Traits ASSESSMENT				



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