NEW TEKS ALIGNED

# 6th Grade Science Scope & Sequence

KESLER SCIENCE

keslerscience.com/texas

150 school days • 11 units • 24 TEKS standards


## 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. STAAR windows, benchmark testing, pep rallies, picture day, the fire drill that swallows your whole third period. I left that cushion on purpose so you're not cramming three units into the last two weeks of May.

The order isn't random. We open with matter and chemistry while everybody's still fresh, roll into force, energy, and waves, then head outside for Earth and space science before finishing up with living things and ecosystems. 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 waves flows 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

★ **Every linked resource is free for Kesler Science Members**
keslerscience.com/kesler-science-membership

# 0 Back-to-School

**5 days** Foundation skills & classroom routines

Spend the first week building the habits that make the rest of the year run smoothly — lab safety, measurement, graphing, the scientific method, and the engineering design process. Pull any combination of the resources below from the Beginning of the Year collection to fit your campus schedule.

BEGINNING-OF-THE-YEAR RESOURCES

- **Back to School Escape Room**
- **Lab Safety Station Lab**
- **Lab Safety Escape Room**
- **Graphing Station Lab**
- **Graphing Escape Room**
- **Measurement Station Lab**
- **Measurement Escape Room**
- **Scientific Method Station Lab**
- **Scientific Method Escape Room**
- **Engineering Design Station Lab**
- **Engineering Design Escape Room**

# 1 Properties of Matter

**16 days** 3 standards: 6.6A, 6.6B, 6.6D

## CONTENT STANDARDS

**TEKS 6.6A**
Compare solids, liquids, and gases in terms of their structure, shape, volume, and kinetic energy of atoms and molecules

**TEKS 6.6B**
Investigate the physical properties of matter to distinguish between pure substances, homogeneous mixtures (solutions), and heterogeneous mixtures

**TEKS 6.6D**
Compare the density of substances relative to various fluids

## KEY VOCABULARY

| | |
|---|---|
| pure substance | element |
| compound | homogeneous mixture |
| heterogeneous mixture | solution |
| solute | solvent |
| atoms | molecules |
| kinetic energy | solid |
| liquid | gas |
| shape | structure |
| volume | density |
| mass | |

## SUGGESTED RECURRING THEMES

**6.5E** Analyze how energy flows and matter cycles through systems

## SUGGESTED SCIENCE & ENGINEERING PRACTICES

**6.1B** Plan and conduct descriptive, comparative, and experimental investigations
**6.1G** Develop and use models to represent phenomena and systems
**6.2B** Analyze data by identifying patterns, sources of error, and limitations
**6.2D** Evaluate experimental and engineering designs
**6.3B** Communicate explanations and solutions in a variety of formats

## DAY-BY-DAY PACING

| MON | TUE | WED | THU | FRI |
|---|---|---|---|---|
| Day 1<br>**Matter & Kinetic Energy**<br>ENGAGEMENT<br>STATION LAB (INPUT) | Day 2<br>**Matter & Kinetic Energy**<br>STATION LAB (OUTPUT)<br>PRESENTATION + INB | Day 3<br>**Matter & Kinetic Energy**<br>PRESENTATION + INB | Day 4<br>**Matter & Kinetic Energy**<br>ASSESSMENT | Day 5<br>**Pure Substances & Mixtures**<br>ENGAGEMENT<br>STATION LAB (INPUT) |
| Day 6<br>**Pure Substances & Mixtures**<br>STATION LAB (OUTPUT) | Day 7<br>**Pure Substances & Mixtures**<br>PRESENTATION + INB | Day 8<br>**Pure Substances & Mixtures**<br>STUDENT CHOICE | Day 9<br>**Pure Substances & Mixtures**<br>STUDENT CHOICE | Day 10<br>**Pure Substances & Mixtures**<br>ASSESSMENT |
| Day 11<br>**Density**<br>AMAZING ANCHORS PT 1<br>INQUIRY LAB | Day 12<br>**Density**<br>INQUIRY LAB<br>**Comparing Density**<br>PRESENTATION + INB | Day 13<br>**Comparing Density**<br>PRESENTATION + INB<br>WIKI TICKET | Day 14<br>**Comparing Density**<br>WRITING PROMPT<br>**Density**<br>AMAZING ANCHORS PT 2 | Day 15<br>**Density**<br>ESCAPE ROOM |
| Day 16<br>**Comparing Density**<br>ASSESSMENT | | | | |

# 2 Periodic Table & Chemical Changes

**12 days** 2 standards: 6.6C, 6.6E

## CONTENT STANDARDS

**TEKS 6.6C**
Identify elements on the periodic table as metals, nonmetals, metalloids, and rare Earth elements based on their physical properties and importance to modern life

**TEKS 6.6E**
Identify the formation of a new substance using evidence of a possible chemical change, including production of a gas, change in thermal energy, production of a precipitate, and color change

## KEY VOCABULARY

- metal
- nonmetal
- metalloid
- periodic table
- chemical reaction
- chemical change
- reactants
- products
- precipitate

## SUGGESTED RECURRING THEMES

**6.5E** Analyze how energy flows and matter cycles through systems

**6.5G** Analyze how factors or conditions impact stability and change

## SUGGESTED SCIENCE & ENGINEERING PRACTICES

**6.1A** Ask questions and define problems based on observations

**6.3A** Develop explanations and propose solutions supported by data and models

**6.3C** Engage respectfully in scientific argumentation using evidence

**6.4C** Research resources to investigate STEM careers

## DAY-BY-DAY PACING

| MON | TUE | WED | THU | FRI |
|---|---|---|---|---|
| Day 1<br>**Metals, Nonmetals, & Metalloids**<br>AMAZING ANCHORS PT 1<br>INQUIRY LAB | Day 2<br>**Metals, Nonmetals, & Metalloids**<br>INQUIRY LAB | Day 3<br>**Metals, Nonmetals, & Metalloids**<br>INQUIRY LAB<br>**Classify Elements**<br>PRESENTATION + INB | Day 4<br>**Classify Elements**<br>PRESENTATION + INB<br>**Metals, Nonmetals, & Metalloids**<br>WIKI TICKET | Day 5<br>**Metals, Nonmetals, & Metalloids**<br>READING COMPREHENSION<br>AMAZING ANCHORS PT 2 |
| Day 6<br>**Classify Elements**<br>ASSESSMENT | Day 7<br>**Evidence of Chemical Changes**<br>ENGAGEMENT<br>STATION LAB (INPUT) | Day 8<br>**Evidence of Chemical Changes**<br>STATION LAB (OUTPUT) | Day 9<br>**Evidence of Chemical Changes**<br>INQUIRY LAB | Day 10<br>**Evidence of Chemical Changes**<br>PRESENTATION + INB<br>**Chemical Changes**<br>WIKI TICKET |
| Day 11<br>**Chemical Changes**<br>ESCAPE ROOM | Day 12<br>**Evidence of Chemical Changes**<br>ASSESSMENT | | | |

# 3 Force & Motion

**16 days** 3 standards: 6.7A, 6.7B, 6.7C

## CONTENT STANDARDS

**TEKS 6.7A**
Identify and explain how forces act on objects, including gravity, friction, magnetism, applied forces, and normal forces, using real-world applications

**TEKS 6.7B**
Calculate the net force on an object in a horizontal or vertical direction using diagrams and determine if the forces are balanced or unbalanced

**TEKS 6.7C**
Identify simultaneous force pairs that are equal in magnitude and opposite in direction using Newton's Third Law of Motion

## KEY VOCABULARY

- force
- gravity
- applied force
- balanced force
- net force
- motion
- Newton's third law
- action
- magnetism
- friction
- normal force
- unbalanced force
- vector
- magnitude
- reaction

## SUGGESTED RECURRING THEMES

**6.5B** Identify and investigate cause-and-effect relationships
**6.5C** Analyze how scale, proportion, or quantity affect a system
**6.5E** Analyze how energy flows and matter cycles through systems

## SUGGESTED SCIENCE & ENGINEERING PRACTICES

**6.1H** Distinguish between scientific hypotheses, theories, and laws
**6.2B** Analyze data by identifying patterns, sources of error, and limitations
**6.3A** Develop explanations and propose solutions supported by data and models

## DAY-BY-DAY PACING

| MON | TUE | WED | THU | FRI |
|---|---|---|---|---|
| Day 1<br>**Forces in the Real-World**<br>ENGAGEMENT<br>STATION LAB (INPUT) | Day 2<br>**Forces in the Real-World**<br>STATION LAB (OUTPUT) | Day 3<br>**Forces in the Real-World**<br>PRESENTATION + INB | Day 4<br>**Forces in the Real-World**<br>PRESENTATION + INB | Day 5<br>**Forces in the Real-World**<br>ASSESSMENT<br>**Net Force**<br>AMAZING ANCHORS PT 1 |
| Day 6<br>**Net Force**<br>INQUIRY LAB | Day 7<br>**Calculating Net Force**<br>PRESENTATION + INB<br>**Net Force**<br>WIKI TICKET | Day 8<br>**Net Force**<br>WRITING PROMPT<br>AMAZING ANCHORS PT 2 | Day 9<br>**Net Force**<br>ESCAPE ROOM | Day 10<br>**Calculating Net Force**<br>ASSESSMENT |
| Day 11<br>**Newton's Third Law of Motion**<br>ENGAGEMENT<br>STATION LAB (INPUT) | Day 12<br>**Newton's Third Law of Motion**<br>STATION LAB (OUTPUT) | Day 13<br>**Newton's Third Law**<br>INQUIRY LAB | Day 14<br>**Newton's Third Law of Motion**<br>PRESENTATION + INB<br>**Newton's Third Law**<br>WIKI TICKET | Day 15<br>**Newton's Third Law**<br>READING COMPREHENSION |
| Day 16<br>**Newton's Third Law of Motion**<br>ASSESSMENT | | | | |

# 4 Energy

**13 days** 2 standards: 6.8A, 6.8B

## CONTENT STANDARDS

**TEKS 6.8A**
Compare and contrast gravitational, elastic, and chemical potential energies with kinetic energy

**TEKS 6.8B**
Describe how energy is conserved through transfers and transformations in systems such as electrical circuits, food webs, amusement park rides, or photosynthesis

## KEY VOCABULARY

- energy
- kinetic energy
- potential energy
- gravitational PE
- elastic PE
- chemical PE
- energy transformation
- conservation of energy
- photosynthesis

## SUGGESTED RECURRING THEMES

**6.5E** Analyze how energy flows and matter cycles through systems

## SUGGESTED SCIENCE & ENGINEERING PRACTICES

**6.2D** Evaluate experimental and engineering designs

**6.3A** Develop explanations and propose solutions supported by data and models

## DAY-BY-DAY PACING

| MON | TUE | WED | THU | FRI |
|---|---|---|---|---|
| Day 1<br>**Compare & Contrast Energies**<br>ENGAGEMENT<br>STATION LAB (INPUT) | Day 2<br>**Compare & Contrast Energies**<br>STATION LAB (OUTPUT) | Day 3<br>**Compare & Contrast Energies**<br>PRESENTATION + INB<br>**Potential & Kinetic Energy**<br>WIKI TICKET | Day 4<br>**Compare & Contrast Energies**<br>STUDENT CHOICE | Day 5<br>**Compare & Contrast Energies**<br>STUDENT CHOICE |
| Day 6<br>**Compare & Contrast Energies**<br>STUDENT CHOICE | Day 7<br>**Compare & Contrast Energies**<br>ASSESSMENT<br>**Energy Transformations**<br>AMAZING ANCHORS PT 1 | Day 8<br>**Energy Transformations**<br>INQUIRY LAB | Day 9<br>**Energy Transformations**<br>INQUIRY LAB | Day 10<br>**Energy Transformations in Systems**<br>PRESENTATION + INB |
| Day 11<br>**Energy Transformations in Systems**<br>PRESENTATION + INB<br>**Energy Transformations**<br>WIKI TICKET | Day 12<br>**Energy Transformations**<br>READING COMPREHENSION<br>AMAZING ANCHORS PT 2 | Day 13<br>**Energy Transformations**<br>ASSESSMENT | | |

# 5 Waves

**7 days** 1 standards: 6.8C

## CONTENT STANDARDS

**TEKS 6.8C**
Explain how energy is transferred through transverse and longitudinal waves

## KEY VOCABULARY

| | |
|---|---|
| wave | energy |
| medium | longitudinal waves |
| transverse waves | crest |
| trough | amplitude |
| wavelength | compression |
| rarefaction | frequency |

## SUGGESTED RECURRING THEMES

**6.5E** Analyze how energy flows and matter cycles through systems

## SUGGESTED SCIENCE & ENGINEERING PRACTICES

**6.1D** Use appropriate tools to collect, record, and analyze data

**6.1G** Develop and use models to represent phenomena and systems

**6.2C** Use mathematical calculations to assess quantitative relationships

## DAY-BY-DAY PACING

| MON | TUE | WED | THU | FRI |
|---|---|---|---|---|
| Day 1<br>**Waves & Energy**<br>AMAZING ANCHORS PT 1<br>**Energy of Waves**<br>STATION LAB (INPUT) | Day 2<br>**Energy of Waves**<br>STATION LAB (OUTPUT) | Day 3<br>**Waves & Energy**<br>INQUIRY LAB | Day 4<br>**Energy of Waves**<br>PRESENTATION + INB | Day 5<br>**Energy of Waves**<br>PRESENTATION + INB<br>**Waves & Energy**<br>WIKI TICKET |
| Day 6<br>**Waves & Energy**<br>WRITING PROMPT<br>**Energy of Waves**<br>AMAZING ANCHORS PT 2 | Day 7<br>**Energy of Waves**<br>ASSESSMENT | | | |

# 6 Seasons & Tides

**13 days** 2 standards: 6.9A, 6.9B

## CONTENT STANDARDS

**TEKS 6.9A**
Model and illustrate how the tilted Earth revolves around the Sun, causing changes in seasons

**TEKS 6.9B**
Describe and predict how the positions of the Earth, Sun, and Moon cause daily, spring, and neap cycles of ocean tides due to gravitational forces

## KEY VOCABULARY

| | |
|---|---|
| seasons | revolves |
| tilt | equinox |
| solstice | tides |
| low tide | high tide |
| neap tide | spring tide |

## SUGGESTED RECURRING THEMES

**6.5A** Identify and apply patterns to connect scientific phenomena

## SUGGESTED SCIENCE & ENGINEERING PRACTICES

**6.1A** Ask questions and define problems based on observations
**6.1G** Develop and use models to represent phenomena and systems
**6.3B** Communicate explanations and solutions in a variety of formats

## DAY-BY-DAY PACING

| MON | TUE | WED | THU | FRI |
|---|---|---|---|---|
| Day 1<br>**Seasons**<br>AMAZING ANCHORS PT 1<br>**Model Earth's Tilt & Seasons**<br>STATION LAB (INPUT) | Day 2<br>**Model Earth's Tilt & Seasons**<br>STATION LAB (OUTPUT) | Day 3<br>**Seasons**<br>INQUIRY LAB | Day 4<br>**Model Earth's Tilt & Seasons**<br>PRESENTATION + INB<br>**Seasons**<br>WIKI TICKET | Day 5<br>**Model Earth's Tilt & Seasons**<br>WRITING PROMPT<br>**Seasons**<br>AMAZING ANCHORS PT 2 |
| Day 6<br>**Model Earth's Tilt & Seasons**<br>ASSESSMENT<br>**Tides**<br>AMAZING ANCHORS PT 1 | Day 7<br>**Tides**<br>INQUIRY LAB | Day 8<br>**Predicting Tides**<br>PRESENTATION + INB<br>WIKI TICKET | Day 9<br>**Tides**<br>READING COMPREHENSION | Day 10<br>**Predicting Tides**<br>STUDENT CHOICE |
| Day 11<br>**Predicting Tides**<br>STUDENT CHOICE | Day 12<br>**Predicting Tides**<br>STUDENT CHOICE<br>**Tides**<br>AMAZING ANCHORS PT 2 | Day 13<br>**Predicting Tides**<br>ASSESSMENT | | |

# 7 Earth Science

**15 days** 3 standards: 6.10A, 6.10B, 6.10C

## CONTENT STANDARDS

**TEKS 6.10A**
Differentiate between the biosphere, hydrosphere, atmosphere, and geosphere and identify components of each system

**TEKS 6.10B**
Model and describe the layers of Earth, including the inner core, outer core, mantle, and crust

**TEKS 6.10C**
Describe how metamorphic, igneous, and sedimentary rocks form and change through geologic processes in the rock cycle

## KEY VOCABULARY

| | |
|---|---|
| biosphere | hydrosphere |
| atmosphere | geosphere |
| crust | mantle |
| inner core | outer core |
| metamorphic rock | igneous rock |
| sedimentary rock | rock cycle |
| erosion | weathering |
| deposition | |

## SUGGESTED RECURRING THEMES

**6.5A** Identify and apply patterns to connect scientific phenomena
**6.5D** Examine and model the parts of a system and their interdependence

## SUGGESTED SCIENCE & ENGINEERING PRACTICES

**6.1G** Develop and use models to represent phenomena and systems
**6.3C** Engage respectfully in scientific argumentation using evidence
**6.4A** Relate the impact of past and current research on scientific thought
**6.4B** Make informed decisions by evaluating evidence from multiple sources
**6.4C** Research resources to investigate STEM careers

## DAY-BY-DAY PACING

| MON | TUE | WED | THU | FRI |
|---|---|---|---|---|
| Day 1<br>**Differentiate Between Earth's Spheres**<br>ENGAGEMENT<br>STATION LAB (INPUT) | Day 2<br>**Differentiate Between Earth's Spheres**<br>STATION LAB (OUTPUT) | Day 3<br>**Differentiate Between Earth's Spheres**<br>PRESENTATION + INB | Day 4<br>**Earth's Spheres**<br>WRITING PROMPT | Day 5<br>**Differentiate Between Earth's Spheres**<br>ASSESSMENT<br>**Earth's Layers**<br>AMAZING ANCHORS PT 1 |
| Day 6<br>**Earth's Layers**<br>INQUIRY LAB | Day 7<br>**Modeling Layers of Earth**<br>PRESENTATION + INB | Day 8<br>**Modeling Layers of Earth**<br>PRESENTATION + INB<br>**Earth's Layers**<br>WIKI TICKET | Day 9<br>**Earth's Layers**<br>READING COMPREHENSION<br>AMAZING ANCHORS PT 2 | Day 10<br>**Modeling Layers of Earth**<br>ASSESSMENT<br>**Processes in Rock Cycle**<br>ENGAGEMENT |
| Day 11<br>**Rock Cycle**<br>INQUIRY LAB | Day 12<br>**Processes in Rock Cycle**<br>PRESENTATION + INB | Day 13<br>**Processes in Rock Cycle**<br>PRESENTATION + INB<br>**Rock Cycle**<br>WIKI TICKET | Day 14<br>**Rock Cycle**<br>ESCAPE ROOM | Day 15<br>**Processes in Rock Cycle**<br>ASSESSMENT |

# 8 Energy Resources

**12 days** 2 standards: 6.11A, 6.11B

## CONTENT STANDARDS

**TEKS 6.11A**
Research and describe why resource management is important in reducing global energy poverty, malnutrition, and air and water pollution

**TEKS 6.11B**
Explain how conservation, increased efficiency, and technology can help manage air, water, soil, and energy resources

## KEY VOCABULARY

- resource
- global energy poverty
- malnutrition
- air pollution
- water pollution
- resource management
- sustainable
- runoff
- conservation
- renewable energy
- nonrenewable energy

## SUGGESTED RECURRING THEMES

**6.5B** Identify and investigate cause-and-effect relationships

**6.5G** Analyze how factors or conditions impact stability and change

## SUGGESTED SCIENCE & ENGINEERING PRACTICES

**6.1D** Use appropriate tools to collect, record, and analyze data

**6.1G** Develop and use models to represent phenomena and systems

**6.3B** Communicate explanations and solutions in a variety of formats

**6.3C** Engage respectfully in scientific argumentation using evidence

**6.4B** Make informed decisions by evaluating evidence from multiple sources

## DAY-BY-DAY PACING

| MON | TUE | WED | THU | FRI |
|---|---|---|---|---|
| Day 1<br>**Resource Management**<br>ENGAGEMENT<br>STATION LAB (INPUT) | Day 2<br>**Resource Management**<br>STATION LAB (OUTPUT) | Day 3<br>**Resource Management**<br>PRESENTATION + INB | Day 4<br>**Resource Management**<br>PRESENTATION + INB | Day 5<br>**Resource Management**<br>ASSESSMENT |
| Day 6<br>**Managing Energy Resources**<br>ENGAGEMENT<br>STATION LAB (INPUT) | Day 7<br>**Managing Energy Resources**<br>STATION LAB (OUTPUT) | Day 8<br>**Managing Energy Resources**<br>PRESENTATION + INB | Day 9<br>**Managing Energy Resources**<br>PRESENTATION + INB<br>STUDENT CHOICE | Day 10<br>**Managing Energy Resources**<br>STUDENT CHOICE |
| Day 11<br>**Managing Energy Resources**<br>STUDENT CHOICE | Day 12<br>**Managing Energy Resources**<br>ASSESSMENT | | | |

# 9 Organisms

**10 days** 2 standards: 6.13A, 6.13B

## CONTENT STANDARDS

**TEKS 6.13A**
Describe the historical development of cell theory and explain how organisms are composed of one or more cells, which come from pre-existing cells and are the basic unit of structure and function

**TEKS 6.13B**
Identify and compare the basic characteristics of organisms, including prokaryotic and eukaryotic, unicellular and multicellular, and autotrophic and heterotrophic

## KEY VOCABULARY

- cell theory
- cells
- prokaryotic
- eukaryotic
- nucleus
- unicellular
- multicellular
- autotroph
- heterotroph

## SUGGESTED RECURRING THEMES

**6.5C** Analyze how scale, proportion, or quantity affect a system
**6.5F** Analyze the complementary relationship between structure and function

## SUGGESTED SCIENCE & ENGINEERING PRACTICES

**6.1B** Plan and conduct descriptive, comparative, and experimental investigations
**6.1H** Distinguish between scientific hypotheses, theories, and laws
**6.2A** Identify advantages and limitations of models
**6.4A** Relate the impact of past and current research on scientific thought
**6.4C** Research resources to investigate STEM careers

## DAY-BY-DAY PACING

| MON | TUE | WED | THU | FRI |
|---|---|---|---|---|
| Day 1<br>**Cell Theory**<br>AMAZING ANCHORS PT 1<br>**Development of Cell Theory**<br>STATION LAB (INPUT) | Day 2<br>**Development of Cell Theory**<br>STATION LAB (OUTPUT) | Day 3<br>**Development of Cell Theory**<br>PRESENTATION + INB<br>**Cell Theory**<br>WIKI TICKET | Day 4<br>**Cell Theory**<br>WRITING PROMPT<br>AMAZING ANCHORS PT 2 | Day 5<br>**Development of Cell Theory**<br>ASSESSMENT<br>**Comparing Organisms**<br>ENGAGEMENT |
| Day 6<br>**Prokaryotic & Eukaryotic Cells**<br>INQUIRY LAB | Day 7<br>**Comparing Organisms**<br>PRESENTATION + INB | Day 8<br>**Comparing Organisms**<br>PRESENTATION + INB<br>WIKI TICKET | Day 9<br>**Characteristics of Organisms**<br>READING COMPREHENSION | Day 10<br>**Comparing Organisms**<br>ASSESSMENT |

# 10 Ecosystems

**21 days** 4 standards: 6.12A, 6.12B, 6.12C, 6.13C

## CONTENT STANDARDS

**TEKS 6.12C**
Describe the hierarchical organization of organism, population, and community within an ecosystem

**TEKS 6.12A**
Investigate how organisms and populations depend on and may compete for biotic factors such as food and abiotic factors such as light, water, temperature, or soil composition

**TEKS 6.12B**
Describe and give examples of predatory, competitive, and symbiotic relationships, including mutualism, parasitism, and commensalism

**TEKS 6.13C**
Describe how variations within a population can be an advantage or disadvantage to survival as environments change

## KEY VOCABULARY

| | |
|---|---|
| organism | population |
| community | ecosystem |
| variation | biotic |
| abiotic | mutualism |
| parasitism | commensalism |
| predator | prey |

## SUGGESTED RECURRING THEMES

**6.5D** Examine and model the parts of a system and their interdependence

**6.5F** Analyze the complementary relationship between structure and function

## SUGGESTED SCIENCE & ENGINEERING PRACTICES

**6.2A** Identify advantages and limitations of models

**6.2B** Analyze data by identifying patterns, sources of error, and limitations

**6.2C** Use mathematical calculations to assess quantitative relationships

**6.3A** Develop explanations and propose solutions supported by data and models

## DAY-BY-DAY PACING

| MON | TUE | WED | THU | FRI |
|---|---|---|---|---|
| Day 1<br>**Organization of Ecosystems**<br>AMAZING ANCHORS PT 1<br>INQUIRY LAB | Day 2<br>**Organization of Ecosystems**<br>INQUIRY LAB | Day 3<br>**Organization of Ecosystems**<br>AMAZING ANCHORS PT 2<br>WIKI TICKET | Day 4<br>**Competition for Resources**<br>AMAZING ANCHORS PT 1<br>INQUIRY LAB | Day 5<br>**Competition for Resources**<br>INQUIRY LAB |
| Day 6<br>**Biotic & Abiotic Competition**<br>PRESENTATION + INB | Day 7<br>**Biotic & Abiotic Competition**<br>PRESENTATION + INB<br>**Competition for Resources**<br>WIKI TICKET | Day 8<br>**Biotic & Abiotic Factors**<br>ESCAPE ROOM | Day 9<br>**Competition for Resources**<br>AMAZING ANCHORS PT 2<br>**Biotic & Abiotic Competition**<br>ASSESSMENT | Day 10<br>**Ecological Relationships**<br>ENGAGEMENT<br>STATION LAB (INPUT) |
| Day 11<br>**Ecological Relationships**<br>STATION LAB (OUTPUT) | Day 12<br>**Ecological Relationships**<br>PRESENTATION + INB | Day 13<br>**Ecological Relationships**<br>PRESENTATION + INB<br>**Interactions in Ecosystems**<br>WIKI TICKET | Day 14<br>**Interactions in Ecosystems**<br>READING COMPREHENSION | Day 15<br>**Ecological Relationships**<br>ASSESSMENT |

# 10 Ecosystems

Day-by-Day Pacing (continued)

| MON | TUE | WED | THU | FRI |
|---|---|---|---|---|
| Day 16<br>Variation in Populations<br>AMAZING ANCHORS PT 1<br>Variations & Survival<br>STATION LAB (INPUT) | Day 17<br>Variations & Survival<br>STATION LAB (OUTPUT) | Day 18<br>Variations & Survival<br>PRESENTATION + INB | Day 19<br>Variations & Survival<br>PRESENTATION + INB<br>Variation in Populations<br>WIKI TICKET | Day 20<br>Variation in Populations<br>WRITING PROMPT |
| Day 21<br>Variation in Populations<br>AMAZING ANCHORS PT 2<br>Variations & Survival<br>ASSESSMENT | | | | |

# 11 STEM Challenges

**10 days** 2 featured engineering design projects

## FEATURED PROJECTS

**PROJECT: MYSTERY POWDER**
5-day engineering design challenge applying matter, properties, and chemical-change concepts to identify an unknown substance.

**PROJECT: THRILLS**
5-day engineering design challenge applying force, motion, and energy concepts to design a working ride.

## MORE STEM CHALLENGES

Swap in any of these open-ended challenges to fit your remaining days or content focus:

Project Wind and Sky Project Electric Project Big, Bigger, Biggest Project Last Dance

## DAY-BY-DAY PACING

| MON | TUE | WED | THU | FRI |
|---|---|---|---|---|
| Day 1<br>**Mystery Powder**<br>PROJECT | Day 2<br>**Mystery Powder**<br>PROJECT | Day 3<br>**Mystery Powder**<br>PROJECT | Day 4<br>**Mystery Powder**<br>PROJECT | Day 5<br>**Mystery Powder**<br>PROJECT |
| Day 6<br>**Thrills**<br>PROJECT | Day 7<br>**Thrills**<br>PROJECT | Day 8<br>**Thrills**<br>PROJECT | Day 9<br>**Thrills**<br>PROJECT | Day 10<br>**Thrills**<br>PROJECT |