

8th Grade TEKS Year-at-a-Glance

This year-at-a-glance is designed to cover 150 school days. Use your local guidelines to determine how to address the standards in the time you have.

Unit 0: Back-to-School (5 days)**Unit 1: Properties of Matter (17 days)**

- 8.6A - Modeling Matter
- 8.6C - Properties of Water
- 8.6D - Properties of Acids & Bases

Unit 2: Chemical Reactions (17 days)

- 8.6B - Periodic Table & Reactions
- 8.6E - Conservation in Reactions

Unit 3: Newton's Laws (15 days)

- 8.7A - Newton's Second Law of Motion
- 8.7B - Laws of Motion in Systems

Unit 4: Waves (11 days)

- 8.8A - Transverse Waves
- 8.8B - Electromagnetic Waves

Unit 5: Space (12 days)

- 8.9A - Classifying Stars
- 8.9B - Categorizing Galaxies
- 8.9C - Origins of the Universe

Unit 6: Weather (15 days)

- 8.10A - Energy from the Sun
- 8.10B - Atmospheric Movement
- 8.10C - Tropical Storms

Unit 7: Cells (7 days)

- 8.13A - Cell Organelles

Unit 8: Genetics (11 days)

- 8.13B - Genes
- 8.13C - Adaptations for Survival

Unit 9: Ecosystems (15 days)

- 8.12A - Disruptions in Ecosystems
- 8.12B - Succession & Species Diversity
- 8.12C - Sustainability of an Ecosystem

Unit 10: Climate (15 days)

- 8.11C - Describing the Carbon Cycle
- 8.11A - Natural Events & Climate
- 8.11B - Human Activities & Climate

Unit 11: Engineering Design (10 days)

Unit 0: Back-to-School

We have several resources that can be used during the first week of class to engage students and build strong foundation skills. You can find these resources in the Beginning of the Year lesson collection.

- [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](#)

Unit 1: Properties of Matter

Content Standards:

- TEKS.8.6A - explain by modeling how matter is classified as elements, compounds, homogeneous mixtures, or heterogeneous mixtures
- TEKS.8.6C - describe the properties of cohesion, adhesion, and surface tension in water and relate to observable phenomena such as the formation of droplets, transport in plants, and insects walking on water
- TEKS.8.6D - compare and contrast the properties of acids and bases, including pH relative to water

Suggested Recurring Themes:

- TEKS.8.5A - identify and apply patterns to understand and connect scientific phenomena or to design solutions
- TEKS.8.5E - analyze and explain how energy flows and matter cycles through systems and how energy and matter are conserved through a variety of systems

Suggested Science and Engineering Practices:

- TEKS.8.1B - use scientific practices to plan and conduct descriptive, comparative, and experimental investigations and use engineering practices to design solutions to problems
- TEKS.8.1G - develop and use models to represent phenomena, systems, processes, or solutions to engineering problems
- TEKS.8.2B - analyze data by identifying any significant descriptive statistical features, patterns, sources of error, or limitations

Key Vocabulary

- | | |
|-------------------------|--------------------|
| • matter | • cohesion |
| • element | • adhesion |
| • compound | • surface tension |
| • molecule | • capillary action |
| • pure substance | • pH scale |
| • heterogeneous mixture | • indicator |
| • homogenous mixture | • acid |
| • solution | • base |

Unit 1: Properties of Matter

The unit plan below is a suggestion. Each day is based on a typical 45-minute class period.

Day 1	Day 2	Day 3	Day 4	Day 5
TEKS.8.6A - Modeling Matter Engagement TEKS.8.6A - Modeling Matter Station Labs - Input Stations	TEKS.8.6A - Modeling Matter Station Labs - Output Stations	TEKS.8.6A - Modeling Matter Presentation and INB	TEKS.8.6A - Modeling Matter Presentation and INB	TEKS.8.6A - Modeling Matter Assessment TEKS.8.6C - Properties of Water Engagement
Day 6	Day 7	Day 8	Day 9	Day 10
TEKS.8.6C - Properties of Water Station Labs - Input Stations	TEKS.8.6C - Properties of Water Station Labs - Output Stations	TEKS.8.6C - Properties of Water Presentation and INB	TEKS.8.6C - Properties of Water Presentation and INB	TEKS.8.6C - Properties of Water Inquiry Lab
Day 11	Day 12	Day 13	Day 14	Day 15
TEKS.8.6C - Properties of Water Assessment TEKS.8.6D - Properties of Acids and Bases Engagement	TEKS.8.6D - Properties of Acids and Bases Station Labs - Input Stations	TEKS.8.6D - Properties of Acids and Bases Station Labs - Output Stations	TEKS.8.6D - Properties of Acids and Bases Presentation and INB	TEKS.8.6D - Properties of Acids and Bases Presentation and INB
Day 16	Day 17			
TEKS.8.6D - Acids and Bases Inquiry Lab	TEKS.8.6D - Properties of Acids and Bases Assessment			

Unit 2: Chemical Reactions

Content Standards:

- TEKS.8.6B - use the periodic table to identify the atoms involved in chemical reactions
- TEKS.8.6E - investigate how mass is conserved in chemical reactions and relate conservation of mass to the rearrangement of atoms using chemical equations, including photosynthesis

Suggested Recurring Themes:

- TEKS.8.5A - identify and apply patterns to understand and connect scientific phenomena or to design solutions
- TEKS.8.5E - analyze and explain how energy flows and matter cycles through systems and how energy and matter are conserved through a variety of systems

Suggested Science and Engineering Practices:

- TEKS.8.1B - use scientific practices to plan and conduct descriptive, comparative, and experimental investigations and use engineering practices to design solutions to problems
- TEKS.8.1G - develop and use models to represent phenomena, systems, processes, or solutions to engineering problems
- TEKS.8.3C - engage respectfully in scientific argumentation using applied scientific explanations and empirical evidence

Key Vocabulary

- | | |
|------------------|-------------------------------|
| • periodic table | • chemical reaction |
| • atomic number | • reactants |
| • periods | • products |
| • groups | • law of conservation of mass |
| • atoms | • photosynthesis |

Unit 2: Chemical Reactions

The unit plan below is a suggestion. Each day is based on a typical 45-minute class period.

Day 1	Day 2	Day 3	Day 4	Day 5
TEKS.8.6B - Periodic Table & Reactivity Amazing Anchors Part 1 TEKS.8.6B - Periodic Table & Reactions Station Labs - Input Stations	TEKS.8.6B - Periodic Table & Reactions Station Labs - Output Stations	TEKS.8.6B - Periodic Table & Reactions Presentation and INB	TEKS.8.6B - Periodic Table & Reactions Presentation and INB TEKS.8.6B - Periodic Table & Reactivity WIKI Ticket	TEKS.8.6B - Periodic Table & Reactivity Science Reading Comprehension Passage
Day 6	Day 7	Day 8	Day 9	Day 10
TEKS.8.6B - Periodic Table & Reactions Student Choice	TEKS.8.6B - Periodic Table & Reactions Student Choice	TEKS.8.6B - Periodic Table & Reactions Student Choice TEKS.8.6B - Periodic Table & Reactivity Amazing Anchors Part 2	TEKS.8.6B - Periodic Table & Reactions Assessment	TEKS.8.6E - Conservation in Reactions Engagement TEKS.8.6E - Counting Atoms & Elements Inquiry Lab
Day 11	Day 12	Day 13	Day 14	Day 15
TEKS.8.6E - Counting Atoms & Elements Inquiry Lab	TEKS.8.6E - Conservation in Reactions Presentation and INB	TEKS.8.6E - Conservation in Reactions Presentation and INB TEKS.8.6E - Counting Atoms & Elements WIKI Ticket	TEKS.8.6E - Mass & Chemical Reactions Science Reading Comprehension Passage	TEKS.8.6E - Mass & Chemical Reactions Writing Prompt
Day 16	Day 17			
TEKS.8.6BE - Balancing Equations & Counting Atoms Escape Room	TEKS.8.6E - Conservation in Reactions Assessment			

Unit 3: Newton's Laws

Content Standards:

- TEKS.8.7A - calculate and analyze how the acceleration of an object is dependent upon the net force acting on the object and the mass of the object using Newton's Second Law of Motion
- TEKS.8.7B - investigate and describe how Newton's three laws of motion act simultaneously within systems such as in vehicle restraints, sports activities, amusement park rides, Earth's tectonic activities, and rocket launches

Suggested Recurring Themes:

- TEKS.8.5B - identify and investigate cause-and-effect relationships to explain scientific phenomena or analyze problems
- TEKS.8.5C - analyze how differences in scale, proportion, or quantity affect a system's structure or performance

Suggested Science and Engineering Practices:

- TEKS.8.1B - use scientific practices to plan and conduct descriptive, comparative, and experimental investigations and use engineering practices to design solutions to problems
- TEKS.8.1G - develop and use models to represent phenomena, systems, processes, or solutions to engineering problems
- TEKS.8.1H - distinguish between scientific hypotheses, theories, and laws
- TEKS.8.2C - use mathematical calculations to assess quantitative relationships in data

Key Vocabulary

- | | |
|----------------|---------------------------------|
| • acceleration | • inertia |
| • mass | • unbalanced forces |
| • velocity | • simultaneously |
| • force | • Newton's first law of motion |
| • net force | • Newton's second law of motion |
| • motion | • Newton's third law of motion |

Unit 3: Newton's Laws

The unit plan below is a suggestion. Each day is based on a typical 45-minute class period.

Day 1	Day 2	Day 3	Day 4	Day 5
TEKS.8.7A - Newton's Second Law Amazing Anchors Part 1 TEKS.8.7A - Newton's Second Law Inquiry Lab	TEKS.8.7A - Newton's Second Law Inquiry Lab	TEKS.8.7A - Newton's Second Law of Motion Presentation and INB	TEKS.8.7A - Newton's Second Law of Motion Presentation and INB TEKS.8.7A - Newton's Second Law WIKI Ticket	TEKS.8.7A - Newton's Second Law Writing Prompt TEKS.8.7A - Newton's Second Law Amazing Anchors Part 2
Day 6	Day 7	Day 8	Day 9	Day 10
TEKS.8.7A - Newton's Second Law of Motion Assessment	TEKS.8.7B - Laws of Motion in Systems Engagement TEKS.8.7B - Laws of Motion in Systems Station Labs - Input Stations	TEKS.8.7B - Laws of Motion in Systems Station Labs - Output Stations	TEKS.8.7B - Laws of Motion in Systems Presentation and INB	TEKS.8.7B - Laws of Motion in Systems Presentation and INB
Day 11	Day 12	Day 13	Day 14	Day 15
TEKS.8.7B - Laws of Motion in Systems Student Choice	TEKS.8.7B - Laws of Motion in Systems Student Choice	TEKS.8.7B - Laws of Motion in Systems Student Choice	TEKS.8.7AB - Newton's Laws Escape Room	TEKS.8.7B - Laws of Motion in Systems Assessment

Unit 4: Waves

Content Standards:

- TEKS.8.8A - compare the characteristics of amplitude, frequency, and wavelength in transverse waves, including the electromagnetic spectrum
- TEKS.8.8B - explain the use of electromagnetic waves in applications such as radiation therapy, wireless technologies, fiber optics, microwaves, ultraviolet sterilization, astronomical observations, and X-rays

Suggested Recurring Themes:

- TEKS.8.5A - identify and apply patterns to understand and connect scientific phenomena or to design solutions
- TEKS.8.5E - analyze and explain how energy flows and matter cycles through systems and how energy and matter are conserved through a variety of systems

Suggested Science and Engineering Practices:

- TEKS.8.1G - develop and use models to represent phenomena, systems, processes, or solutions to engineering problems
- TEKS.8.2A - identify advantages and limitations of models such as their size, scale, properties, and materials
- TEKS.8.2C - use mathematical calculations to assess quantitative relationships in data
- TEKS.8.4A - relate the impact of past and current research on scientific thought and society, including the process of science, cost-benefit analysis, and contributions of diverse scientists as related to the content

Key Vocabulary

- | | |
|----------------------|----------------------------|
| • waves | • electromagnetic waves |
| • vibration | • electromagnetic spectrum |
| • mechanical waves | • radio waves |
| • longitudinal waves | • microwaves |
| • transverse waves | • infrared radiation |
| • crest | • visible light |
| • trough | • ultraviolet radiation |
| • amplitude | • x-rays |
| • wavelength | • gamma rays |
| • frequency | |

Unit 4: Waves

The unit plan below is a suggestion. Each day is based on a typical 45-minute class period.

Day 1	Day 2	Day 3	Day 4	Day 5
TEKS.8.8A - Transverse Waves Engagement TEKS.8.7A - Transverse Waves Station Labs - Input Stations	TEKS.8.8A - Transverse Waves Station Labs - Output Stations	TEKS.8.8A - Transverse Waves Presentation and INB	TEKS.8.8A - Transverse Waves Presentation and INB	TEKS.8.8A - Transverse Waves Assessment
Day 6	Day 7	Day 8	Day 9	Day 10
TEKS.8.8B - Electromagnetic Spectrum Amazing Anchors Part 1 TEKS.8.8B - Electromagnetic Waves Station Labs - Input Stations	TEKS.8.8B - Electromagnetic Waves Station Labs - Output Stations	TEKS.8.8B - Electromagnetic Waves Presentation and INB	TEKS.8.8B - Electromagnetic Waves Presentation and INB TEKS.8.8B - Electromagnetic Spectrum Amazing Anchors Part 2	TEKS.8.8B - Electromagnetic Spectrum Science Reading Comprehension Passage
Day 11				
TEKS.8.8B - Electromagnetic Waves Assessment				

Unit 5: Space

Content Standards:

- TEKS.8.9A - describe the life cycle of stars and compare and classify stars using the Hertzsprung-Russell diagram
- TEKS.8.9B - categorize galaxies as spiral, elliptical, and irregular and locate Earth's solar system within the Milky Way galaxy
- TEKS.8.9C - research and analyze scientific data used as evidence to develop scientific theories that describe the origin of the universe

Suggested Recurring Themes:

- TEKS.8.5A - identify and apply patterns to understand and connect scientific phenomena or to design solutions
- TEKS.8.5C - analyze how differences in scale, proportion, or quantity affect a system's structure or performance

Suggested Science and Engineering Practices:

- TEKS.8.1A - ask questions and define problems based on observations or information from text, phenomena, models, or investigations
- TEKS.8.2C - use mathematical calculations to assess quantitative relationships in data
- TEKS.8.3C - engage respectfully in scientific argumentation using applied scientific explanations and empirical evidence

Key Vocabulary

- | | |
|----------------------|----------------------------------|
| • main sequence | • galaxy |
| • red giant | • Milky Way |
| • white dwarf | • spiral galaxies |
| • red supergiant | • elliptical galaxies |
| • blue giant | • irregular galaxies |
| • H-R diagram | • light year |
| • luminosity | • redshift |
| • apparent magnitude | • microwave background radiation |
| • absolute magnitude | |

Unit 5: Space

The unit plan below is a suggestion. Each day is based on a typical 45-minute class period.

Day 1	Day 2	Day 3	Day 4	Day 5
TEKS.8.9A Classifying Stars Engagement TEKS.8.9A Classifying Stars Station Labs - Input Stations	TEKS.8.9A Classifying Stars Station Labs - Output Stations	TEKS.8.9A Classifying Stars Presentation and INB	TEKS.8.9A Classifying Stars Presentation and INB TEKS.8.9A H-R Diagram WIKI Ticket	TEKS.8.9A Classifying Stars Waves Assessment TEKS.8.8B Categorizing Galaxies Engagement
Day 6	Day 7	Day 8	Day 9	Day 10
TEKS.8.8B Categorizing Galaxies Inquiry Lab	TEKS.8.8B Categorizing Galaxies Presentation and INB	TEKS.8.8B Galaxies & Light Years Writing Prompt	TEKS.8.8B Categorizing Galaxies Assessment TEKS.8.9C Origins of the Universe Engagement	TEKS.8.9C Origins of the Universe Station Labs - Input Stations
Day 11	Day 12			
TEKS.8.9C Origins of the Universe Station Labs - Output Stations	TEKS.8.8C Big Bang Theory Inquiry Lab			

Unit 6: Weather

Content Standards:

- TEKS.8.10A - describe how energy from the Sun, hydrosphere, and atmosphere interact and influence weather and climate
- TEKS.8.10B - identify global patterns of atmospheric movement and how they influence local weather
- TEKS.8.10C - describe the interactions between ocean currents and air masses that produce tropical cyclones, including typhoons and hurricanes

Suggested Recurring Themes:

- TEKS.8.5A - identify and apply patterns to understand and connect scientific phenomena or to design solutions
- TEKS.8.5D - examine and model the parts of a system and their interdependence in the function of the system

Suggested Science and Engineering Practices:

- TEKS.8.1D - use appropriate tools such as weather maps
- TEKS.8.1G - develop and use models to represent phenomena, systems, processes, or solutions to engineering problems
- TEKS.8.2A - identify advantages and limitations of models such as their size, scale, properties, and materials
- TEKS.8.2B - analyze data by identifying any significant descriptive statistical features, patterns, sources of error, or limitations

Key Vocabulary

- | | |
|-----------------|-------------------|
| • weather | • Coriolis effect |
| • climate | • jet stream |
| • hydrosphere | • isobars |
| • atmosphere | • front |
| • air pressure | • weather map |
| • low pressure | • hurricane |
| • high pressure | • typhoon |
| • convection | • cyclone |
| • global winds | • ocean currents |

Unit 6: Weather

The unit plan below is a suggestion. Each day is based on a typical 45-minute class period.

Day 1	Day 2	Day 3	Day 4	Day 5
TEKS.8.10A - Energy from the Sun Engagement TEKS.8.10A - Energy from the Sun Station Labs - Input Stations	TEKS.8.10A - Energy from the Sun Station Labs - Output Stations	TEKS.8.10A - Energy from the Sun Presentation and INB	TEKS.8.10A - Energy from the Sun Presentation and INB	TEKS.8.10A - Energy from the Sun Assessment
Day 6	Day 7	Day 8	Day 9	Day 10
TEKS.8.10B - Weather Maps & Air Pressure Amazing Anchors Part 1 TEKS.8.10B - Atmospheric Movement Station Labs - Input Stations	TEKS.8.10B - Atmospheric Movement Station Labs - Output Stations	TEKS.8.10B - Atmospheric Movement Presentation and INB	TEKS.8.10B - Atmospheric Movement Presentation and INB TEKS.8.10B - Weather Maps & Air Pressure WIKI Ticket	TEKS.8.10B - Weather Maps & Air Pressure Inquiry Lab TEKS.8.10B - Weather Maps & Air Pressure Amazing Anchors Part 2
Day 11	Day 12	Day 13	Day 14	Day 15
TEKS.8.10B - Atmospheric Movement Assessment TEKS.8.10C - Hurricanes Amazing Anchors Part 1	TEKS.8.10C - Hurricanes Inquiry Lab	TEKS.8.10C - Tropical Storms Presentation and INB TEKS.8.10C - Hurricanes WIKI Ticket	TEKS.8.10C - Hurricanes Writing Prompt TEKS.8.10C - Hurricanes Amazing Anchors Part 2	TEKS.8.10C - Tropical Storms Assessment

Unit 7: Cells

Content Standards:

- TEKS.8.13A - identify the function of the cell membrane, cell wall, nucleus, ribosomes, cytoplasm, mitochondria, chloroplasts, and vacuoles in plant or animal cells

Suggested Recurring Themes:

- TEKS.8.5F - analyze and explain the complementary relationship between the structure and function of objects, organisms, and systems

Suggested Science and Engineering Practices:

- TEKS.8.2B - analyze data by identifying any significant descriptive statistical features, patterns, sources of error, or limitations

Key Vocabulary

- | | |
|-----------------|---------------|
| • cells | • nucleus |
| • organelles | • ribosomes |
| • cell membrane | • vacuole |
| • mitochondria | • cell wall |
| • cytoplasm | • chloroplast |

Unit 7: Cells

The unit plan below is a suggestion. Each day is based on a typical 45-minute class period.

Day 1	Day 2	Day 3	Day 4	Day 5
TEKS.8.13A - Cell Organelles Engagement TEKS.8.13A - Cell Organelles Station Labs - Input Stations	TEKS.8.13A - Cell Organelles Station Labs - Output Stations	TEKS.8.13A - Cell Organelles Presentation and INB	TEKS.8.13A - Cell Organelles Presentation and INB TEKS.8.13A - Plant & Animal Cells Organelles WIKI Ticket	TEKS.8.13A - Plant & Animal Cells Science Reading Comprehension Passage
Day 6	Day 7			
TEKS.8.13A - Cells Escape Room	TEKS.8.13A - Cell Organelles Assessment			

Unit 8: Genetics

Content Standards:

- TEKS.8.13B - describe the function of genes within chromosomes in determining inherited traits of offspring
- TEKS.8.13C - describe how variations of traits within a population lead to structural, behavioral, and physiological adaptations that influence the likelihood of survival and reproductive success of a species over generations

Suggested Recurring Themes:

- TEKS.8.5F - analyze and explain the complementary relationship between the structure and function of objects, organisms, and systems
- TEKS.8.5G - analyze and explain how factors or conditions impact stability and change in objects, organisms, and systems

Suggested Science and Engineering Practices:

- TEKS.8.2D - evaluate experimental and engineering designs
- TEKS.8.3C - engage respectfully in scientific argumentation using applied scientific explanations and empirical evidence

Key Vocabulary

- | | |
|-------------------|-----------------------------|
| • heredity | • variations |
| • inherited trait | • natural selection |
| • cell | • adaptations |
| • nucleus | • structural adaptations |
| • chromosomes | • behavioral adaptations |
| • DNA | • physiological adaptations |
| • gene | |

Unit 8: Genetics

The unit plan below is a suggestion. Each day is based on a typical 45-minute class period.

Day 1	Day 2	Day 3	Day 4	Day 5
TEKS.8.13B - Inherited Traits & DNA Amazing Anchors Part 1 TEKS.8.13B - Genes Station Labs - Input Stations	TEKS.8.13B - Genes Station Labs - Output Stations	TEKS.8.13B - Genes Presentation and INB TEKS.8.13B - Inherited Traits & DNA WIKI Ticket	TEKS.8.13B - Inherited Traits & DNA Writing Prompt TEKS.8.13B - Inherited Traits & DNA Amazing Anchors Part 2	TEKS.8.13B - Inherited Traits & DNA Assessment TEKS.8.13C - Adaptations for Survival Engagement
Day 6	Day 7	Day 8	Day 9	Day 10
TEKS.8.13C - Adaptations for Survival Station Labs - Input Stations	TEKS.8.13C - Adaptations for Survival Station Labs - Output Stations	TEKS.8.13C - Adaptations for Survival Presentation and INB	TEKS.8.13C - Adaptations for Survival Presentation and INB TEKS.8.13C - Variation in Populations WIKI Ticket	TEKS.8.13C - Variation in Populations Science Reading Comprehension Passage
Day 11				
TEKS.8.13C - Adaptations for Survival Assessment				

Unit 9: Ecosystems

Content Standards:

- TEKS.8.12A - explain how disruptions such as population changes, natural disasters, and human intervention impact the transfer of energy in food webs in ecosystems
- TEKS.8.12B - describe how primary and secondary ecological succession affect populations and species diversity after ecosystems are disrupted by natural events or human activity
- TEKS.8.12C - describe how biodiversity contributes to the stability and sustainability of an ecosystem and the health of the organisms within the ecosystem

Suggested Recurring Themes:

- TEKS.8.5B - identify and investigate cause-and-effect relationships to explain scientific phenomena or analyze problems
- TEKS.8.5G - analyze and explain how factors or conditions impact stability and change in objects, organisms, and systems

Suggested Science and Engineering Practices:

- TEKS.8.1A - ask questions and define problems based on observations or information from text, phenomena, models, or investigations
- TEKS.8.2A - identify advantages and limitations of models such as their size, scale, properties, and materials
- TEKS.8.2B - analyze data by identifying any significant descriptive statistical features, patterns, sources of error, or limitations
- TEKS.8.3A - develop explanations and propose solutions supported by data and models and consistent with scientific ideas, principles, and theories
- TEKS.8.3C - engage respectfully in scientific argumentation using applied scientific explanations and empirical evidence

Key Vocabulary

- | | |
|-------------------------|------------------------|
| • ecosystems | • species diversity |
| • food webs | • climax community |
| • ecological succession | • biodiversity |
| • primary succession | • genetic diversity |
| • secondary succession | • species diversity |
| • pioneer species | • ecological diversity |

Unit 9: Ecosystems

The unit plan below is a suggestion. Each day is based on a typical 45-minute class period.

Day 1	Day 2	Day 3	Day 4	Day 5
TEKS.8.12A - Disruptions in Ecosystems Engagement TEKS.8.12A - Disruptions in Ecosystems Station Labs - Input Stations	TEKS.8.12A - Disruptions in Ecosystems Station Labs - Output Stations	TEKS.8.12A - Disruptions in Ecosystems Presentation and INB	TEKS.8.12A - Disruptions in Ecosystems Presentation and INB TEKS.8.12A - Environmental Changes WIKI Ticket	TEKS.8.12A - Disruptions in Ecosystems Assessment TEKS.8.12B - Ecological Succession Amazing Anchors Part 1
Day 6	Day 7	Day 8	Day 9	Day 10
TEKS.8.12B - Ecological Succession Inquiry Lab	TEKS. 8.12B - Succession & Species Diversity Presentation and INB	TEKS. 8.12B - Succession & Species Diversity Presentation and INB TEKS.8.12B - Ecological Succession WIKI Ticket	TEKS.8.12B - Ecological Succession Writing Prompt TEKS.8.12B - Ecological Succession Amazing Anchors Part 2	TEKS. 8.12B - Succession & Species Diversity Assessment TEKS. 8.12C - Sustainability of an Ecosystem Engagement
Day 11	Day 12	Day 13	Day 14	Day 15
TEKS. 8.12C - Sustainability of an Ecosystem Station Labs - Input Stations	TEKS. 8.12C - Sustainability of an Ecosystem Station Labs - Output Stations	TEKS. 8.12C - Sustainability of an Ecosystem Presentation and INB	TEKS. 8.12C - Sustainability of an Ecosystem Science Reading Comprehension Passage	TEKS. 8.12C - Sustainability of an Ecosystem Assessment

Unit 10: Climate

Content Standards:

- TEKS.8.11A - use scientific evidence to describe how natural events, including volcanic eruptions, meteor impacts, abrupt changes in ocean currents, and the release and absorption of greenhouse gases influence climate
- TEKS.8.11B - use scientific evidence to describe how human activities, including the release of greenhouse gases, deforestation, and urbanization, can influence climate
- TEKS.8.11C - describe the carbon cycle

Suggested Recurring Themes:

- TEKS.8.5B - identify and investigate cause-and-effect relationships to explain scientific phenomena or analyze problems
- TEKS.8.5D - examine and model the parts of a system and their interdependence in the function of the system
- TEKS.8.5G - analyze and explain how factors or conditions impact stability and change in objects, organisms, and systems

Suggested Science and Engineering Practices:

- TEKS.8.1G - develop and use models to represent phenomena, systems, processes, or solutions to engineering problems
- TEKS.8.3A - develop explanations and propose solutions supported by data and models and consistent with scientific ideas, principles, and theories
- TEKS.8.4C - research and explore resources such as museums, libraries, professional organizations, private companies, online platforms, and mentors employed in a science, technology, engineering, and mathematics (STEM) field to investigate STEM careers

Key Vocabulary

- | | |
|--------------------|----------------------|
| • carbon cycle | • deforestation |
| • photosynthesis | • urbanization |
| • respiration | • atmosphere |
| • decomposition | • volcanic eruptions |
| • combustion | • meteor |
| • climate | • ocean currents |
| • greenhouse gases | |

Unit 10: Climate

The unit plan below is a suggestion. Each day is based on a typical 45-minute class period.

Day 1	Day 2	Day 3	Day 4	Day 5
TEKS. 8.11C - Describing the Carbon Cycle Engagement TEKS. 8.11C - Describing the Carbon Cycle Station Labs - Input Stations	TEKS. 8.11C - Describing the Carbon Cycle Station Labs - Output Stations	TEKS. 8.11C - Describing the Carbon Cycle Presentation and INB	TEKS. 8.11C - Describing the Carbon Cycle Assessment TEKS. 8.11A - Natural Events & Climate Engagement	TEKS. 8.11A - Natural Events & Climate Station Labs - Input Stations
Day 6	Day 7	Day 8	Day 9	Day 10
TEKS. 8.11A - Natural Events & Climate Station Labs - Output Stations	TEKS. 8.11A - Natural Events & Climate Presentation and INB	TEKS. 8.11A - Natural Events & Climate Student Choice	TEKS. 8.11A - Natural Events & Climate Student Choice	TEKS. 8.11A - Natural Events & Climate Student Choice
Day 11	Day 12	Day 13	Day 14	Day 15
TEKS. 8.11A - Natural Events & Climate Assessment	TEKS. 8.11B - Human Activities & Climate Engagement TEKS. 8.11B - Human Activities & Climate Station Labs - Input Stations	TEKS. 8.11B - Human Activities & Climate Station Labs - Output Stations	TEKS. 8.11B - Human Activities & Climate Presentation and INB	TEKS. 8.11B - Human Activities & Climate Assessment

Unit 11: Engineering Design

The unit plan below is a suggestion. Each day is based on a typical 45-minute class period.

Day 1	Day 2	Day 3	Day 4	Day 5
Project Off to the Races	Project Off to the Races	Project Off to the Races	Project Off to the Races	Project Off to the Races
Day 6	Day 7	Day 8	Day 9	Day 10
Project Star Gazer	Project Star Gazer	Project Star Gazer	Project Star Gazer	Project Star Gazer

Additional STEM Challenges include:

- [Project Last Dance](#)
- [Project What Happens Next](#)
- [Project Skydive](#)