



Science Grade 4

TERM 1

| Term 1 Dates | MS College and Career Readiness Standards |
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| WK 1: Aug 6-16 | SCIENCE and ENGINEERING PRACTICES <ul style="list-style-type: none"> Ask Question and Define Problems Develop and Use Models Analyze and Interpret Data |
| WK 2: Aug 19-23 | <ul style="list-style-type: none"> Plan and Conduct Investigations Use Mathematical and Computational Thinking Engage in Scientific Argument from Evidence Construct Explanations and Design Solutions Obtain, Evaluate, and Communicate Information |
| Unit Assessment 1 | |
| WK 3: Aug 26-30 | Hierarchical Organization: Human Organs & Organ Systems Supports BIO I L.4.1.1 Use technology or other resources to research and discover general system function (e.g., machines, water cycle) as they relate to human organ systems and identify organs that work together to create organ systems. |
| WK 4: Sept 2-6 | L.4.1.2 Obtain and communicate data to describe patterns that indicate the nature of relationships between human organ systems, which interact with one another to control digestion, respiration, circulation, excretion, movement, coordination, and protection from infection. L.4.1.3 Construct models of organ systems (e.g. circulatory, digestive, respiratory, muscular, skeletal, nervous) to demonstrate both the unique function of the system and how multiple organs and organ systems work together to accomplish more complex functions. |
| WK 5: Sept 9-13 | Human Body Systems & Disease *MINOR STANDARD(S) L.4.1.5 Using informational text, investigate how scientific fields, medical specialties, and research methods help us find new ways to maintain a healthy body and lifestyle (e.g. diet, exercise, vaccines, and mental health). L.4.1.4 Research and communicate how noninfectious diseases (e.g. diabetes, heart disease) and infectious diseases (e.g. cold, flu) serve to disrupt the function of the body system. |
| Mid-term OR Unit Assessment 2 (WK 4.5/ WK 5) | |
| WK 6: Sept 16-20 | Life Cycles *MINOR STANDARD(S) L.4.2.1 Compare and contrast life cycles of familiar plants and animals. L.4.2.2 Develop and use models to explain the unique and diverse life cycles of organisms other than humans (e.g., flowering plants, frogs, or butterflies) including commonalities (e.g., birth, growth, reproduction, or death). |
| WK 7: Sept 23-27 | |
| Unit Assessment 3 optional due to BMA | |

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| WK 8: Sept 30- Oct 4 | Review for Benchmark |
| WK 9: Oct 7-11 | <i>Benchmark OR Unit Assessment</i> |

TERM 1

Recurring Standards

Standards taught the first 4-5 weeks; the mid-term data will indicate the remediation needed.

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| WK 5: Sept 9-13 | Science & Engineering Practices |
| WK 6: Sept 16-20 | L.4.1.1, L.4.1.2, L.4.1.3 |
| WK 7: Sept 23-27 | L.4.1.1, L.4.1.2, L.4.1.3 |



Science Grade 4

TERM 2

| Term 2 Dates | MS College and Career Readiness Standards |
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| WK 1: Oct 14-18 | <p>Motions, Forces & Energy Supports SCI 5 P.5.6</p> <p>P.4.6A.1 Obtain and communicate information to compare how different processes (including burning, friction, and electricity) serve as sources of heat energy.</p> <p>P.4.6A.2 Plan and conduct scientific investigations to classify different materials as either an insulator or conductor of electricity.</p> <p>P.4.6A.3 Develop models demonstrating how heat and electrical energy can be transformed into other forms of energy (e.g., motion, sound, heat, or light).</p> <p>Motions, Forces & Energy: Light Energy *MINOR STANDARD(S)</p> <p>P.4.6A.4 Develop models that demonstrate the path of an electric current in a complete, simple circuit (e.g., lighting a light bulb or making a sound).</p> |
| WK 2: Oct 21-25 | <p>P.4.6A.5 Use informational text and technology resources to communicate technological breakthroughs made by historical figures in electricity (e.g. Alessandro Volta, Michael Faraday, Nicola Tesla, Thomas Edison, incandescent light bulbs, batteries, Light Emitting Diodes).</p> <p>P.4.6A.6 Design a device that converts any form of energy from one form to another form (e.g., construct a musical instrument that will convert vibrations to sound by controlling varying pitches, a solar oven that will convert energy from the sun to heat energy, or a simple circuit that can be used to complete a task). Use an engineering design process to define the problem, design, construct, evaluate, and improve the device.*</p> |
| Unit Assessment 1 | |
| WK 3: Oct 28- Nov 1 | <p>Light Energy Supports SCI 8 *MINOR STANDARD(S)</p> <p>P.4.6B.1 Construct scientific evidence to support the claim that white light is made up of different colors. Include the work of Sir Isaac Newton to communicate results.</p> <p>P.4.6B.2 Obtain and communicate information to explain how the visibility of an object is related to light.</p> |
| WK 4: Nov 4-8 | <p>P.4.6B.3 Develop and use models to communicate how light travels and behaves when it strikes an object, including reflection, refraction, and absorption.</p> <p>P.4.6B.4 Plan and conduct scientific investigations to explain how light behaves when it strikes transparent, translucent, and opaque materials.</p> |
| Mid-term OR Unit Assessment 2 (WK 4.5/ WK 5) | |
| WK 5: Nov 11-15 | <p>Sound Energy Supports SCI 8 *MINOR STANDARD(S)</p> <p>P.4.6C.1 Plan and conduct scientific investigations to test how different variables affect the properties of sound (i.e., pitch and volume).</p> |

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| WK 6: Nov 18-22 | P.4.6C.2 In relation to how sound is perceived by humans, analyze and interpret data from observations and measurements to report how changes in vibration affect the pitch and volume of sound. |
| WK 7: Dec 2-6 | P.4.6C.3 Obtain and communicate information about scientists who pioneered in the science of sound, (e.g., Alexander Graham Bell, Robert Boyle, Daniel Bernoulli, and Guglielmo Marconi). |
| <i>Unit Assessment 3 optional due to BMA</i> | |
| WK 8: Dec 9-13 | <i>Review for Benchmark</i> |
| WK 9: Dec 16-20 | <i>Benchmark OR Unit Assessment</i> |

| TERM 2 | |
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| Recurring Standards | |
| Standards taught the first 4-5 weeks; the mid-term data will indicate the remediation needed. | |
| WK 5: Nov 11-15 | P.4.6A.1 & P.4.6A.3 |
| WK 6: Nov 18-22 | P.4.6A.2 |
| WK 7: Dec 2-6 | P.4.6B.1, P.4.6B.2, P.4.6B.3 & P.4.6B.4 |



Science Grade 4

TERM 3

| Term 3 Dates | MS College and Career Readiness Standards |
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| WK 1: Jan 6-10 | Earth's Natural Processes, Humans & Landforms Supports SCI 8 E.4.9C.1 Analyze and interpret data to describe and predict how natural processes (e.g., weathering, erosion, deposition, earthquakes, tsunamis, hurricanes, or storms) affect Earth's surface. |
| WK 2: Jan 13-17 | E.4.9C.2 Develop and use models of natural processes to explain the effect of the movement of water on the ocean shore zone, including beaches, barrier islands, estuaries, and inlets (e.g., marshes, bays, lagoons, fjord, or sound). E.4.9C.3 Construct scientific arguments from evidence to support claims that human activities, such as conservation efforts or pollution, affect the land, oceans, and atmosphere of Earth. |
| Unit Assessment 1 | |
| WK 3: Jan 20-24 | Natural Resources & Human Impact Supports SCI 5 E 10.1 E.4.10.1 Organize simple data sets to compare energy and pollution output of various traditional, non-renewable resources (e.g. coal, crude oil, wood). |
| WK 4: Jan 27-31 | E.4.10.2 Use technology or informational text to investigate, evaluate, and communicate various forms of clean energy generation. |
| Mid-term OR Unit Assessment 2 (WK 4.5/ WK 5) | |
| WK 5: Feb 3-7 | Earth's Systems & Natural Disasters & Prevention E.4.9C.4 Research and explain how systems (i.e., the atmosphere, geosphere, and/or hydrosphere), interact and support life in the biosphere. Supports SCI 8 |
| WK 6: Feb 10-14 | E.4.9C.5 Obtain and communicate information about severe weather phenomena (e.g., thunderstorms, hurricanes, or tornadoes) to explain steps humans can take to reduce the impact of severe weather events. Supports SCI 5 E 10.2 |
| Unit Assessment 3 | |
| WK 7: Feb 17-21 | Weather & Climate Patterns Supports SCI 8 E.4.9A.1 Develop and use models to explain how the sun's energy drives the water cycle. (e.g., evaporation, condensation, precipitation, transpiration, runoff, and groundwater). E.4.9B.1 Analyze and interpret data (e.g., temperature, precipitation, wind speed/direction, relative humidity, or cloud types) to predict changes in weather over time. E.4.9B.2 Construct explanations about regional climate differences using maps and long-term data from various regions. |

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| WK 8: Feb 24-28 | E.4.9B.3 Design weather instruments utilized to measure weather conditions (e.g., barometer, hygrometer, rain gauge, anemometer, or wind vane). Use an engineering design process to define the problem, design, construct, evaluate, and improve the weather instrument.* |
| <i>Unit Assessment 4 optional due to BMA</i> | |
| WK 9: March 3-7 | <i>Review & Benchmark OR Unit Assessment</i> |

TERM 3

Recurring Standards

Standards taught the first 4-5 weeks; the mid-term data will indicate the remediation needed.

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| WK 5: Feb 3-7 | E.4.9C.1 & E.4.9C.2 |
| WK 6: Feb 10-14 | E.4.9C.3 |
| WK 7: Feb 17-21 | E.4.10.1 & E.4.10.2 |



Science Grade 4

| TERM 4 | |
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| Term 4 Dates | MS College and Career Readiness Standards |
| WK 1: March 17-21 | <i>TBD using Benchmark/ Unit Assessment data and/or remediation time needed for other grade level tested areas</i> |
| Checkpoint 1 | |
| WK 2: March 24-28 | <i>TBD using Benchmark/ Unit Assessment data and/or remediation time needed for other grade level tested areas</i> |
| Checkpoint 2 | |
| WK 3: March 31- April 4 | <i>TBD using Benchmark/ Unit Assessment data and/ or remediation time needed for other grade level tested areas</i> |
| Checkpoint 3 | |
| WK 4: April 7-11 | <i>TBD using Benchmark/ Unit Assessment data and/ or remediation time needed for other grade level tested areas</i> |
| Checkpoint 4 | |
| WK 5: April 14-18 | <i>N/A; benchmark testing</i> |
| WK 6: April 21-25 | <i>N/A; benchmark testing</i> |
| WK 7: April 28- May 2 | <i>N/A; benchmark testing</i> |
| WK 8: May 5-9 | <i>N/A; benchmark testing</i> |
| WK 9: May 12-21 | Review & EOY Assessment |

| TERM 4 | |
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| Recurring Standards | |
| Standards taught the first 4-5 weeks; the mid-term data will indicate the remediation needed. | |
| WK 5: April 14-18 | <i>N/A; benchmark testing</i> |
| WK 6: April 21-25 | <i>N/A; benchmark testing</i> |
| WK 7: April 28- May 2 | <i>N/A; benchmark testing</i> |

