Western Line
SCHOOL DISTRICT

Science Grade 5

TERM 1	

Term 1 Dates	MS College and Career Readiness Standards
WK 1: Aug 6-16	**SCIENCE and ENGINEERING PRACTICES** • Ask Question and Define Problems • Develop and Use Models • Analyze and Interpret Data • 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 2: Aug 19-23	L.5.3A.1 Research and communicate the basic process of photosynthesis that is used by plants to convert light energy into chemical energy that can be stored and released to fuel an organism's activities.
WK 3: Aug 26-30	L.5.3A.2 Analyze environments that do not receive direct sunlight and devise explanations as to how photosynthesis occurs, either naturally or artificially.
WK 4: Sept 2-6	L.5.3B.1 Obtain and evaluate scientific information regarding the characteristics of different ecosystems and the organisms they support (e.g., salt and freshwater, deserts, grasslands, forests, rain forests, or polar tundra lands).
Mid-term OR Unit Assessment 2 (WK 4.5/ WK 5)	
WK 5: Sept 9-13	L.5.3B.2 Develop and use a food chain model to classify organisms as producers, consumers, or decomposers. Trace the energy flow to explain how each group of organisms obtains energy. L.5.3B.3 Design and interpret models of food webs to justify what effects the removal or the addition of a species (i.e., introduced or invasive) would have on a specific population and/or the ecosystem as a whole.
WK 6: Sept 16-20	L.5.3B.4 Communicate scientific or technical information that explains human positions in food webs and our potential impacts on these systems.
Unit Assessment 3 optional due to BMA	

WK 7: Sept 23-27	Class Projects & Review
WK 8: Sept 30- Oct 4	Bootcamp, Practice Assessment & Review
WK 9: Oct 7-11	*Benchmark OR Unit Assessment*

TERM 1		
Recurring Standards **Standards taught the first 4-5 weeks; the mid-term data will indicate the remediation needed.**		
WK 5: Sept 9-13	Science & Engineering Practices	
WK 6: Sept 16-20	L.3A.1 & L.3A.2	
WK 7: Sept 23-27	L.3B.1	

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TERM 2	
Term 2 Dates	**MS College and Career Readiness Standards**
WK 1: Oct 14-18	P.5.5A.1 Obtain and evaluate scientific information to describe basic physical properties of atoms and molecules. P.5.5A.2 Collect, analyze, and interpret data from measurements of the physical properties of solids, liquids, and gases (e.g., volume, shape, movement, and spacing of particles). P.5.5A.3 Analyze matter through observations and measurements to classify materials (e.g., powders, metals, minerals, or liquids) based on their properties (e.g., color, hardness, reflectivity, electrical conductivity, thermal conductivity, response to magnetic forces, solubility, or density).
WK 2: Oct 21-25	P.5.5A.4 Make and test predictions about how the density of an object affects whether the object sinks or floats when placed in a liquid. P.5.5A.5 Design a vessel that can safely transport a dense substance (e.g., syrup, coins, marbles) through water at various distances and under variable conditions. Use an engineering design process to define the problem, design, construct, evaluate, and improve the vessel.*
Unit Assessment 1	
WK 3: Oct 28- Nov 1	P.5.5C.2 Analyze and communicate the results of physical changes to a substance that results in a reversible change (e.g., changes in states of matter with the addition or removal of energy, changes in size or shape, or combining/separating mixtures or solutions).
WK 4: Nov 4-8	P.5.5C.1 Analyze and communicate the results of chemical changes that result in the formation of new materials (e.g., decaying, burning, rusting, or cooking).
WK 5: Nov 11-15	P.5.5C.3 Analyze and interpret data to support claims that when two substances are mixed, the total weight of matter is conserved.
Mid-term OR Unit Assessment 2 (WK 4.5/ WK 5)	
WK 6: Nov 18-22	P.5.5B.1 Obtain and evaluate scientific information to describe what happens to the properties of substances in mixtures and solutions. P.5.5B.2 Analyze and interpret data to communicate that the concentration of a solution is determined by the relative amount of solute versus solvent in various mixtures.
WK 7: Dec 2-6	P.5.5B.3 Investigate how different variables (e.g., temperature change, stirring, particle size, or surface area) affect the rate at which a solute will dissolve.

	P.5.5B.4 Design an effective system (e.g., sifting, filtration, evaporation, magnetic attraction, or floatation) for separating various mixtures. Use an engineering design process to define the problem, design, construct, evaluate, and improve the system.*
WK 8: Dec 9-13	P.5.6.5 Predict how a change of force, mass, and/or friction affects the motion of an object to convert potential energy into kinetic energy.
Unit Assessment 3 optional due to BMA	
WK 9: Dec 16-20	**Benchmark OR Unit Assessment**

TERM 2	
Recurring Standards **Standards taught the first 4-5 weeks; the mid-term data will indicate the remediation needed.**	
WK 5: Nov 11-15	P.5.5A.1, P.5.5A.2 & P.5.5A.3
WK 6: Nov 18-22	P.5.5A.4 & P.5.5A.5
WK 7: Dec 2-6	P.5.5C.2 & P.5.5C.1

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TERM 3	
Term 3 Dates	**MS College and Career Readiness Standards**
WK 1: Jan 6-10	P.5.6.2 Predict the future motion of various objects based on past observation and measurement of position, direction, and speed. P.5.6.3 Develop and use models to explain how the amount or type of force, both contact and non-contact, affects the motion of an object.
WK 2: Jan 13-17	P.5.6.1 Obtain and communicate information describing gravity's effect on an object. P.5.6.6 Design a system to increase the effects of friction on the motion of an object (e.g., non-slip surfaces or vehicle braking systems or flaps on aircraft wings). Use an engineering design process to define the problem, design, construct, evaluate, and improve the system.* P.5.6.4 Plan and conduct scientific investigations to test the effects of balanced and unbalanced forces on the speed and/or direction of objects in motion.
Unit Assessment 1	
WK 3: Jan 20-24	E.5.8A.1 Develop and use scaled models of Earth's solar system to demonstrate the size, composition (i.e., rock or gas), location, and order of the planets as they orbit the Sun. E.5.8A.2 Use evidence to argue why the sun appears brighter than other stars.
WK 4: Jan 27-31	E.5.8A.3 Describe how constellations appear to move from Earth's perspective throughout the seasons (e.g., Ursa Major, Ursa Minor, and Orion). E.5.8A.4 Construct scientific arguments to support claims about the importance of astronomy in navigation and exploration, including the use of telescopes, compasses, and star charts.
Mid-term OR Unit Assessment 2 (WK 4.5/ WK 5)	
WK 5: Feb 3-7	E.5.8B.1 Analyze and interpret data from observations and research (e.g., from NASA, NOAA, or the USGS) to explain patterns in the location, movement, and appearance of the moon throughout a month and over the course of a year. E.5.8B.2 Develop and use a model of the Earth-Sun-Moon system to analyze the cyclic patterns of lunar phases, solar and lunar eclipses, and seasons.

WK 6: Feb 10-14	E.5.8B.3 Develop and use models to explain the factors (e.g., tilt, revolution, and angle of sunlight) that result in Earth's seasonal changes. E.5.8B.4 Obtain information and analyze how our understanding of the solar system has evolved over time (e.g., Earth-centered model of Aristotle and Ptolemy compared to the Sun-centered model of Copernicus and Galileo).
Unit Assessment 3	
WK 7: Feb 17-21	E.5.10.1 Collect and organize scientific ideas that individuals and communities can use to conserve Earth's natural resources and systems (e.g., implementing watershed management practices to conserve water resources, utilizing no-till farming to improve soil fertility, reducing emissions to abate air pollution, or recycling to reduce landfill waste).
WK 8: Feb 24-28	
Unit Assessment 4 optional due to BMA	
WK 9: March 3-7	***Review & Benchmark OR Unit Assessment***

TERM 3	
Recurring Standards **Standards taught the first 4-5 weeks; the mid-term data will indicate the remediation needed.**	
WK 5: Feb 3-7	P.5.6.2, P.5.6.3, P.5.6.1
WK 6: Feb 10-14	P.5.6.6 & P.5.6.4
WK 7: Feb 17-21	E.5.8A.1, E.5.8A.2, E.5.8A.3 & E.5.8A.4

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TERM 4	
Term 4 Dates	**MS College and Career Readiness Standards**
WK 1: March 17-21	E.5.10.2 Design a process for better preparing communities to withstand manmade or natural disasters (e.g., removing oil from water or soil, systems that reduce the impact of floods, structures that resist hurricane forces). Use an engineering design process to define the problem, design, construct, evaluate, and improve the disaster plan.*
	Unit Assessment 1
WK 2: March 24-28	*TBD using Benchmark/ Unit Assessment data and/or remediation time needed for other grade level tested areas*
	Checkpoint 1
WK 3: March 31- April 4	*TBD using Benchmark/ Unit Assessment data and/or remediation time needed for other grade level tested areas*
	Checkpoint 2
WK 4: April 7-11	*TBD using Benchmark/ Unit Assessment data and/or remediation time needed for other grade level tested areas*
	Checkpoint 3
WK 5: April 14-18	*N/A; benchmark testing*
WK 6: April 21-25	*N/A; benchmark testing*
WK 7: April 28- May 2	*N/A; benchmark testing*
WK 8: May 5-9	*N/A; benchmark testing*
WK 9: May 12-21	***Review & EOY Assessment***

TERM 4	
Recurring Standards Standards taught the first 4-5 weeks; the mid-term data will indicate the remediation needed.	
WK 5: April 14-18	E.5.10.2
WK 6: April 21-25	*N/A; benchmark testing*
WK 7: April 28- May 2	*N/A; benchmark testing*