



6th Grade Science Scope & Sequence

Interim Assessment Dates

Secondary Teacher Resource Website

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Dates	Topic/Unit of Study	Weeks	Curriculum Performance Expectations. (What the students are doing and learning). 3-dimensional overarching unit standard.	NGSS Focal Standards	Shared Resources
Aug 5 - Aug 14	Unit 0: Smart Start/Science Skills	1 1/2		CCC's SEP's	Amplify Scavenger Hunt Vocab Frayer Model Printable Freyer Vocabulary Template

Aug 17 - Sep 11	Unit 1: Microbiomes	4	Practices Disciplinary Core Ideas Crosscutting Concepts Students investigate the microorganisms that make up the human microbiome and examine living things and their components at multiple scales—from molecules to single-celled organisms to the overall human body (scale, proportion, quantity). Students analyze data in order to construct scientific arguments about how a fecal transplant can influence the microbiome and cause a patient infected with harmful bacteria to recover.	MS-LS1.1 MS-LS1.2 MS-LS1-3 MS-LS2.1 MS-LS2.2	AMPLIFY Investigation Videos Unit Orientation Video Scale Tool
Sep 14 - Oct 16	Unit 2: Metabolism	4	Practices Disciplinary Core Ideas Crosscutting Concepts As students first diagnose a patient and then engage in argumentation about an athlete's improved performance, they make connections—through the use of physical and digital models, articles, videos, and hands-on investigations—between macroscale and	MS-LS1.1 MS-LS1.2 MS-LS1-3 MS-LS1-8	Amplify investigation videos Unit Orientation Video Simulation size scale sort cards

			microscale processes in the body (scale, proportion, and quantity). Students construct explanations about how body systems work together (systems and system models) to provide the body's cells with the molecules they need for cellular respiration (energy), growth, and repair (energy and matter).		
Oct 19 - Dec 4	Unit 3: Traits & Reproduction	6	Practices Disciplinary Core Ideas Crosscutting Concepts Students create physical and visual models, read articles, and observe genetics in action in a digital model as they investigate the structure and function of protein molecules. They construct explanations about the cause-and-effect relationships of gene combinations and inheritance, proteins, and traits (cause and effect), and they engage in	MS-LS1.2 MS-LS1.4 MS-LS1.5 MS-LS3.2	AMPLIFY Investigation Videos Unit Orientation Video Simulation Darwin's Bark Spider Video STEAM connection - engineering artificial spider thread

			argumentation about how the traits of silk flexibility of closely related spiders can vary.		
Dec 7 - Jan 22	Unit 4: Thermal Energy	4	Practices Disciplinary Core Ideas Crosscutting Concepts Students gather evidence from hands-on activities, a digital simulation, and science texts about thermal energy and temperature at the molecular and macroscale (scale, proportion, and quantity). Using both digital and physical models, students simulate thermal energy transfers in which objects of different masses and starting temperatures eventually reach equilibrium (energy and matter, stability and change). They do this in order to construct scientific arguments about which of two heating systems a fictional school principal should choose for his school.	MS-PS3.3 MS-PS3.4 MS-PS3.5	AMPLIFY Investigation Videos Unit Orientation Video Simulation

Jan 25 - Mar 5	Unit 5: Oceans, Atmosphere & Climate	6	Practices Disciplinary Core Ideas Crosscutting Concepts Students use physical and digital models—and analyze evidence from experiments, articles, maps, secondhand data, and videos—to explain the interactions between the atmosphere and the ocean and how these affect regional climate and temperature patterns (cause and effect).	MS-ESS2.6	Unit Orientation Video AMPLIFY Investigation Videos Simulation
Mar 8 - Apr 16	Unit 6: Weather Patterns	4	Practices Disciplinary Core Ideas Crosscutting Concepts Students use digital and physical models, hands-on activities, data, and science texts to investigate how changes in weather conditions result from interactions between sunlight, surface water, and air (stability and change, energy and matter).	MS-ESS2.4 MS-ESS2.5	Unit Orientation Video Hands On Investigation Videos Simulation

Apr 19 - May 28	Unit 7: Earth's Changing Climate	6	Practices Disciplinary Core Ideas Crosscutting Concepts Students use digital and physical models and analyze global temperature data in order to construct explanations of how changes to the atmosphere affect Earth's temperature by altering the energy flow (energy and matter) into and out of Earth's system (systems and system models), disrupting a dynamic but stable system (stability and change). Students discuss ways that human activities are contributing to climate change as well as discuss evidence-based strategies for mitigating climate change.	MS-ESS3.3 MS-ESS3.5	Unit Orientation Video Investigation Videos Simulation Urban Heat Island/Urban Planner Lesson
	Additional Resources		Eduprotocols Smart Start EL Resources Guide Interim Assessment Overview Tutorial Gale Science Interactives Frayer model uses you can use in any unit: Frayer A Friend		

			Frayer for Unit Vocabulary Frayer CER CER Graphic Organizer		
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