

Grade 6 Science Curriculum Map

By the end of sixth grade, students apply their understanding of how matter and energy relate to atoms, the solar system, and ecosystems. Students will develop an understanding of the nature of matter and the role of energy transformation. Students will also deepen their understanding of scales, patterns, and properties of matter, the solar system, and ecosystems. Student investigations focus on collecting and making sense of observational data and measurements using the science and engineering practices: ask questions and define problems, develop and use models, plan and carry out investigations, analyze and interpret data, use mathematics and computational thinking, construct explanations and design solutions, engage in argument from evidence, and obtain, evaluate, and communicate information. While individual lessons may include connections to any of the crosscutting concepts, the standards in sixth grade focus on helping students understand phenomena through patterns; scale, proportion, and quantity; systems and system models; and energy and matter.

Notes:

- The standards referenced in this document can be found linked [here](#).
- The standard number is designed for recording purposes and does not imply instructional sequence or importance.
- In all disciplines, educators should incorporate scientific measurement skills appropriate to that discipline.

Unit #	Unit Title	Key Content	Standards
1 Physical Science	Weather and Water	<ul style="list-style-type: none"> • Changes in states of matter caused by different rates of movement of atoms in solids, liquids, and gases • Variations in temperature and/or pressure affect changes in state of matter • Matter and atoms • Predict: how forces act on objects at a distance • How humans use technology to store (potential) and/or use (kinetic) energy 	6.P1U1.1 6.P1U1.2 6.P1U1.3 6.P2U1.4 6.P4U2.5
2 Earth and Space Sciences	Planetary Science	<ul style="list-style-type: none"> • Radiation from the Sun • Scale, properties, and relationships among objects in our solar system • Constellations and other night sky patterns • Earth's rotation and revolution • Eclipse, moon phases, and tides 	6.E1U1.6 6.E2U1.7 6.E2U1.8 6.E2U1.9 6.E2U1.10

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		<ul style="list-style-type: none"> within the Sun-Earth-Moon system • Tilt of Earth’s axis and variations in length of day and seasons 	
3 Life Science	Living Systems	<ul style="list-style-type: none"> • Impact of human activities on the environment • Positive and negative effects of human activities on the competition for energy and resources in ecosystems • Factors that cause species to change and how humans can impact those factors • Interdependence of organisms and their environment including biotic and abiotic factors • Cycling of matter and flow of energy in ecosystems 	6.L2U3.11 6.L2U3.12 6.L2U1.13 6.L2U1.14

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