

## Grade 7 Science Curriculum Map

By the end of seventh grade, students will explore how forces cause changes in motion and how energy is transferred in geologic, atmospheric, and environmental processes. Students investigate force and motion in a wide variety of systems, model how heat energy drives cycles in weather and climate and explain the structure and function of cells. 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 seventh grade focus on helping students understand phenomena through patterns, cause and effect, and structure and function.

### 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	Cells and Life	<ul style="list-style-type: none"> <li>• Cells as structural and functional unit of all living things</li> <li>• Relationship between cell structures and functions</li> <li>• Cells, tissues, and organ systems</li> <li>• How organisms maintain internal stability</li> <li>• Plant cells: converting light energy into food energy</li> </ul>	7.L1U1.8 7.L1U1.9 7.L1U1.10 7.L1U1.11 7.L2U1.12
2	Water Cycle, Dynamic Earth, Weathering and Climate	<ul style="list-style-type: none"> <li>• Atmosphere, hydrosphere, and geosphere: cycling of matter and flow of energy</li> <li>• Plate motion: distribution of fossils and rock, continental shapes and</li> </ul>	7.L2U1.12 7.E1U1.5 7.E1U1.6 7.E1U2.7

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		<p>seafloor structures</p> <ul style="list-style-type: none"><li>• Technology advances and weather prediction</li></ul>	
3	Forces and Motion	<ul style="list-style-type: none"><li>• Newton's laws of motion</li><li>• Gravitational force</li></ul>	7.P3U1.4 7.P3U1.3
4	Electromagnetic Forces	<ul style="list-style-type: none"><li>• Electromagnetic forces</li><li>• How forces act on objects at a distance</li><li>• Gravitational force</li></ul>	7.P2U1.1 7.P2U1.2 7.P3U1.3

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