

Integrated Science Curriculum Map

This course instructs students through the integration of both physical science and earth science standards. Through this course, students will develop their knowledge of physical science principles, and relate these principles to the processes that govern the structure, development and function of Earth's systems. The course content includes a study of 1) energy, matter and change; 2) energy and motion; 3) energy and earth; and 4) energy and the universe. The emphasis is on students engaging in the science and engineering practices while learning science content.

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	Energy & Matter & Change	<ul style="list-style-type: none"> • Relationship of structure of atoms to patterns and properties in Periodic Table • How models are developed, used, and revised • Electron transfer/sharing & formation of ions, molecules, and compounds in natural and synthetic processes • Energy change 	Essential HS.P1U1.1 Essential HS.P1U1.2 Essential HS.P4U1.8
2	Energy and Motion	<ul style="list-style-type: none"> • Field's strength and influence on an object • Change in motion & Newton's Laws • Engineering and technology applications of Newton's Laws • Frequency, wavelength, and speed of waves & applications to technology 	Essential HS.P2U1.5 Essential HS.P3U1.6 Essential HS.P3U2.7 Essential HS.P4U1.10 Essential HS.P4U1.8

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3	Energy & Earth	<ul style="list-style-type: none"> ● Natural resources, natural hazards, change in climate and human activity ● Role of energy and matter in geologic changes over time ● Role of energy in Earth's constantly changing internal and external systems ● Energy usage and transfer ● Sun, weather patterns, and climate 	<p>Essential HS.E1U3.14 Essential HS.E1U1.13 Essential HS.E1U1.12 Essential HS.P4U1.8 Essential HS.P4U1.10 Essential HS.P4U3.9 Essential HS.E1U1.11</p>
4	Energy & Universe	<ul style="list-style-type: none"> ● Astronomical evidence and the universe ● Planetary motion, structure, surfaces, atmospheres, moon, and rings ● Nuclear fusion and life cycle of a star 	<p>Essential HS.E2U1.17 Essential HS.E2U1.16 Essential HS.E2U1.15</p>

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