

Grade 5 Science: Year-at-a-Glance

Science

Organizing idea	Guiding questions	Learning outcomes
Matter	What are things made of?; How does matter change state?; How can we measure the properties of matter?	Understandings of the physical world are deepened by investigating matter (see the curriculum)
Energy	What is energy?; How does energy move and change form?; How do we use energy at school and at home?	Understandings of the physical world are deepened by investigating energy (see the curriculum)
Earth Systems	How do Earth's systems interact with each other?; What causes weather and other changes on Earth?; How do materials cycle through nature?	Understandings of the living world, Earth, and space are deepened by investigating natural systems and their interactions (see the curriculum)
Living Systems	How do living things depend on their environment?; How do organisms interact with one another?; What happens when a natural system is out of balance?	Understandings of the living world, Earth, and space are deepened by investigating natural systems and their interactions (see the curriculum)
Space	What can we observe about the sun, moon, and stars?; How does Earth move in space?; What patterns show up in the sky over time?	Understandings of the living world, Earth, and space are deepened by investigating natural systems and their interactions (see the curriculum)
Computer Science	How can computational thinking help solve a problem?; How do we design, test, and improve a solution?; What is an algorithm?	Problem solving and scientific inquiry are developed through the knowledgeable application of creativity, design, and computational thinking (see the curriculum)
Scientific Methods	How do scientists keep a test fair?; Why does reducing bias matter in an investigation?; How do we know if evidence is reliable?	Investigation of the physical world is enhanced through the use of scientific methods that attempt to remove human biases and increase objectivity (see the curriculum)

Across the year

- Matter and Energy share the same physical-world foundation, so ideas about states of matter connect naturally to lessons on how energy moves and changes. [See the curriculum: 1, 2.](#)
- Earth Systems and Space both ask students to look for patterns in nature, from weather cycles to the movement of the sun and moon. [See the curriculum: 1, 2.](#)
- Living Systems pairs well with Earth Systems, since organisms depend on the land, water, and air around them. [See the curriculum: 1, 2.](#)
- Computer Science and Scientific Methods build the same problem-solving habits: testing ideas, checking for bias, and improving a solution through trial and error. [See the curriculum: 1, 2.](#)
- Across every unit, students return to scientific methods to keep their investigations of matter, energy, Earth, and living things fair and objective. [See the curriculum: 1, 2, 3.](#)