Clarkstown Central School District
Grade 1 Science: NYSSLS Resources for Families
2025–2026 School Year

What Will My Child Learn in Grade 1 Science?

Grade 1 science instruction is aligned with the New York State Science Learning Standards (NYSSLS) and organized into three instructional units. Each unit emphasizes hands-on learning, real-world problem-solving, and three-dimensional instruction: Disciplinary Core Ideas (content), Science & Engineering Practices, and Crosscutting Concepts (big ideas that apply across science).

NYSSLS are based on the Next Generation Science Standards and focus on helping students think and act like scientists and engineers.

Learn more about the standards:
- NYSED Parent Guide to Science Standards
- Full Elementary New York State Science Learning Standards (NYSSLS)
- NextGen Standards

In Clarkstown, science units are taught during a dedicated content block and alternate with units of social studies. The suggested dates below are designed to promote alignment across subject areas—including ELA, math, library, and enrichment—supporting meaningful connections and reinforcing key concepts throughout the curriculum.

Unit	Title	Driving Question	Suggested Dates
Unit 1	Space Systems	How can we observe the patterns of changes in the sky over time?	Oct 14 - Oct 31
Unit 2	Waves: Light and Sound	How do light and sound allow us to see and hear?	Dec 1 - Jan 13
Unit 3	Structure, Function, and Information Processing	How do animals behave in a way that helps their offspring survive? How can humans mimic plants or animals to solve human problems?	Feb 23 - Mar 27

Sense-making and the NYSSLS State Test

Science instruction based in NYSSLS is centered around *"sense-making"* - helping students figure out how and why things happen in the natural world. On the state test, students are expected to apply their knowledge, skills, and understanding of big science ideas to new situations, not just recall facts they've memorized.

For more on Sensemaking in NGSS and NYSSLS:

The Basics Of NGSS Sensemaking and 3-Dimensional Standards
Scientific Phenomenon and Sensemaking

The Three Dimensions in Grade 1

Disciplinary Core Ideas (DCIs) (*what students should know*)

Light and Sound – Students explore how light and sound travel and how they help us see and hear. They investigate how materials affect light (like shadows or reflections) and how sound can be made and changed.

Patterns in the Sky – Students observe the sun, moon, and stars and learn about predictable patterns like day and night. They use models and simple data to describe and explain what they see in the sky.

Animal and Plant Survival – Students learn how animals and plants meet their needs and how they respond to changes in their environment. They study patterns in behavior and how parents help offspring survive.

Science & Engineering Practices *(the skills students should be able to apply to what they know or new information that is provided)*

Asking Questions and Defining Problems means wondering how things work and identifying problems to solve.

Developing and Using Models involves making diagrams or tools to explain ideas.

Planning and Carrying Out Investigations is designing and doing experiments.

Analyzing and Interpreting Data means looking closely at information to find meaning.

Using Math and Computational Thinking involves using numbers, charts, and patterns to understand science.

Constructing Explanations and Designing Solutions is about explaining what we see and figuring out how to fix problems.

Engaging in Argument from Evidence means using facts to support ideas and listening to others.

Obtaining, Evaluating, and Communicating Information involves gathering reliable information and sharing it clearly.

Crosscutting Concepts *(ways of thinking that help students organize knowledge and connect ideas across science disciplines)*

Patterns identify similarities and trends to help make predictions.

Cause and Effect focuses on understanding what causes something to happen.

Scale, Proportion, and Quantity involves comparing size, time, and amounts.

Systems and System Models help us see how parts work together as a whole.

Energy and Matter tracks how energy moves and matter changes.

Structure and Function explores how something's shape helps it work.

Stability and Change studies what stays the same and what changes over time.