

How will students learn science in the classroom?

Each year, students in our schools should be able to demonstrate greater capacity for connecting knowledge across, and between, the physical sciences, life sciences, earth and space sciences, and engineering design. During grades 3–5, your child will begin to form deeper connections between concepts and skills previously learned in grades K–2, such as evaluating methods for collecting data, revising models based on evidence, and analyzing data to make sense of phenomena.

Upon completion of grades 3–5, your child should have a deeper understanding of:

- The effects of chemical reactions, forces, and energy on the world around us;
- The ways different organisms and the environment interact;
- The ways the geosphere, biosphere, and hydrosphere interact; and
- How engineering design can be a regular part of problem solving.

Physical Sciences

Physical sciences during grades 3-5 may explore questions including:

- What allows us to see the world around us?
- How is energy transferred?
- When matter changes, does its weight change?

Life Sciences

Life Sciences during grades 3-5 may explore questions including:

- How do organisms vary in their traits?
- Why do some flowers have such colorful petals?
- What do mushrooms eat?

Earth and Space Sciences

Earth and space sciences during grades 3-5 may explore questions including:

- Why do some constellations disappear in the winter?
- How can water, ice, wind, and vegetation change the land?
- How can we keep buildings from collapsing during an Earthquake?

Engineering Design

Engineering design during grades 3-5 may explore questions including:

- Which solution is the best to solve a problem?
- How can designs be improved?
- How do engineers improve existing technologies to increase their benefits, decrease known risks, or meet societal demands?

For additional information about academic expectations for students in Grades K-2, visit www.nextgenscience.org/parentguides.