



Three-dimensional science standards in the elementary grades lay the foundation for students to work and think like scientists and engineers. We also see strong connections to skills students will use to be successful with reading, literacy, and mathematics. In elementary grades, we will explore disciplinary core ideas in physical, life, and Earth and space sciences via phenomena in the world around us. Learners in elementary grades develop and ask testable questions, collect, and analyze different types of evidence, and write and communicate our understanding. Mastery of these standards will result in young learners who have a deep understanding of how scientific knowledge can provide solutions to practical problems we see in our world.

#### **Expectations for 1st Grade Students:**

- **Physical Science:** Understand that sound can make matter vibrate and vibrating matter can make sound; objects can be seen if light is available; and people use different devices to communicate.
- **Life Science:** Explain that offspring have characteristics that are similar to but not exactly like their parents characteristics; understand that an organism is a living thing that has physical features that help it survive.
- **Earth Science:** Understand that patterns of the motion of the sun, moon, and stars in the sky can be observed, described, and predicted.

#### **Throughout 1st Grade You May Find Students:**

- Planning an investigation to provide evidence that vibrating materials make a sound.
- Making observations about how we see objects based on the amount of light present.
- Using tools to build a device that uses light or sound to communicate
- Developing an understanding of how plants and animals use their external parts help them survive and grow.
- Making observations and constructing explanations about how young plants and animals are like, but not exactly like, their parents.
- Observing that the sun and moon appear to rise in one part of the sky, move across the sky, and set in a different part of the sky.
- Making observations about the amount of light in the winter versus the summer.