





Grade One

In grade one, students engage with plants, animals, light, and sound to recognize more **patterns [CCC-1]** in the world around them. All of the instructional segments in grade one set up future learning: What causes plants and animals to look different from one another but similar to their parents? How does light allow our eyes to see things? What causes the phases of the Moon and the seasons? None of these questions will be answered at this grade level, but the CA NGSS learning progression will revisit them repeatedly in later grades. The purpose of grade one is to give students a common background experience with these phenomena and have students observe them well enough to recognize **patterns [CCC-1]** that prompt them to start asking questions about **cause and effect [CCC-2]** relationships.

Table 3.3. Overview of Instructional Segments for Grade One

	<p>1 Plant Shapes</p> <p>Students explore their natural surroundings with nature hunts and garden planting. They examine the shapes and parts of plants and begin to ask questions about what purpose these parts serve, how the shape of the parts helps them accomplish this purpose, and how the shapes of young plants are similar to the shapes of their parents.</p>
	<p>2 Animal Sounds</p> <p>Students observe the behavior of parents and babies, noticing patterns in how they communicate. They explore the nature of sound, notice the physical parts of animals that produce sounds, and construct physical models that mimic animal sounds.</p>
	<p>3 Shadows and Light</p> <p>Students plan and conduct investigations of how light travels and interacts with different objects. They use these observations as the foundation for constructing models of how people see.</p>
	<p>4 Patterns of Motion of Objects in the Sky</p> <p>Students track the motions of the Sun, Moon, and stars, noticing patterns in how sunlight varies throughout the seasons and Moon phases change over the month. They analyze their data to develop a model that predicts the position of objects.</p>

Sources: Saber 2006; Wander 2007; Matthews 2009; Okada 2005