

# Appendix A (continued)

## Big Ideas – First Grade

Standard 1 The Processes (PoS), Communication (CoS), and Nature (NoS) of Science (Intended Learning Outcomes).	Standard 2 Earth (E) and Space Science (S)	Standard 3 Physical Science Atomic-molecular theory of matter (A) and Newtonian laws of force and motion (F)	Standard 4 Life Science Changes in organisms over time (CT) and the nature of living things (N).
<p>(P) People can often learn about things around them by just observing those things carefully, but sometimes they can learn more by doing something to the things and noting what happens (raise questions about the world around them, be willing to seek answers to some of those questions by making careful observations and trying things out).</p> <p>(C) In doing science, it is often helpful to work with a team and to share findings with others. In this sharing, describing things as accurately as possible is important in science because it enables people to compare their observations with those of others (draw pictures that correctly portray at least some features of the thing being described, describe and compare things in terms of number, shape, texture, size, weight, color, and motion).</p> <p>(N) When people give different descriptions of the same thing, it is usually a good idea to make some fresh observations instead of just arguing about who is right.</p>	<p>(E) The natural world is composed of different materials.</p> <p>(S) The sun can be seen only in the daytime and the moon can be seen sometimes during the day.</p> <p>(E) Seasonal weather changes occur each year.</p>	<p>(F) Things move in many different ways, such as straight, zig zag, round and round, back and forth, and fast and slow.</p> <p>(F) The way to change how something is moving is to give it a push or pull.</p> <p>(A) Objects can be described in terms of the materials they are made of (clay, cloth, paper, etc.).</p> <p>and their physical Properties (color, size, shape, weight, texture, flexibility, etc.).</p>	<p>(CT) Offspring are very much alike, but not exactly, like their parents and like one another.</p> <p>(CT) There is a variation among individuals of one kind within a population.</p> <p>(CT) Some animals and plants are alike in the way they look and things they do, and others are very different from one another.</p> <p>(N) Most living things need water, food, and air.</p> <p>(CT) All kinds of living things have offspring, usually with two parents involved.</p> <p>(N) Plants and animals need to take in water, and animals need to take in food. In addition, plants need light.</p> <p>(N) Animals eat plants and other animals for food.</p>

Earth and Space Science (E) Earth science (SS) Space science	Physical Science (A) Atomic/molecular (F) Force and motion	Life Science (CT) Changes over time (N) Nature of Living Things	Processes, Communication, and Nature of Science (PoS) Processes of science (CoS) Communication of science (NoS) Nature of science	Applications: Science, Technology, and Society (T) Tools of science (A) Applications of science (S) Implications of science for people