Appendix A (continued)
Big Ideas – Second 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) When science investigation is done the way it was done before, we expect to get a very similar result. (N) Sometimes people aren't sure what will happen because they don't know everything that might have an effect. (C) In doing science, it is often helpful to work with a team and to share findings with others. All team members should reach their own individual conclusions, however, about what the findings mean.	(E) Chunks of rocks come in many sizes and shapes, from boulders to grains of sand and even smaller (S) There are recognizable patterns among objects in the night sky. (E) Some changes, such as changes in weather can vary based on season and location.	(F) Things near the earth fall to the ground unless something holds them up. (A) Things can be done to materials to change some of their properties, but not all materials respond the same way to what is done to them.	(N) All living things need water, food, air, waste removal, and a particular range of temperatures in their environment. (N) Animals, including humans, have parts that help them seek, find, and take in food when they feel hunger—eyes and noses for detecting food, legs to get it, arms to carry it away and a mouth to eat it. (N) Senses can warn individuals about danger; muscles help them to fight, hide, or get out of danger. (CT) Some kinds of living things that once lived on earth have completely disappeared, although they were something like others that are alive today. (CT) Different plants and animals have external features that help them thrive in different kinds of places. (CT) Living things are found almost everywhere in the world. There are somewhat different kinds in different places.

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