Third Grade Science Scope & Sequence

Grading Period	Unit Title	Learning Targets
Throughout the School Year		*use cardinal and intermediate directions to locate places on maps and globes such as the Rocky Mountains, the Mississippi River, and Austin, Texas, in relation to the local community *use a scale to determine the distance between places on maps and globes *identify and use the compass rose, grid system, and symbols to locate places on maps and globes *create and interpret maps of places and regions that contain map elements, including a title, compass rose, legend, scale, and grid system *research information, including historical and current events, and geographic data, about the community and world, using a variety of valid print, oral, visual, and internet resources *sequence and categorize information *interpret oral, visual, and print material by identifying the main idea, distinguishing between fact and opinion, identifying cause and effect, and comparing and contrasting *use various parts of a source, including the table of contents, glossary, and index as well as keyword Internet searches, to locate information *interpret and create visuals, including graphs, charts, tables, timelines, illustrations, and maps *use appropriate mathematical skills to interpret social studies information such as maps and graphs *express ideas orally based on knowledge and experiences *use technology to create written and visual material such as stories, poems, pictures, maps, and graphic organizers to express ideas *use standard grammar, spelling, sentence structure, and punctuation

	*use a problem-solving process to identify a problem, gather information, list and consider options, consider advantages and disadvantages, choose and implement a solution, and evaluate the effectiveness of the solution *use a decision-making process to identify a situation that requires a decision, gather information, identify options, predict consequences, and take action to implement a decision	
First Grading Period	Intro Unit: Safety, Materials & Procedures	
	Energy and Matter FOSS Module 1 Inv. 1: Students design investigations to explore and measure the forces of gravity and magnetism. Explore forms of energy. Inv. 2: Observe and classify matter by states. Explore physical properties of matter including length, distance, mass, and volume. Inv. 3: Measure temperature in Celsius. Investigate how heat including sunlight affects matter and the Earth. Inv. 4: Observe mixtures of two materials. Compare the mass of mixtures and solutions prior to mixing, during, and after to confirm that mass is conserved.	*I can define the 3 states of matter. *I can measure, test and record different properties of matter: including temperature, mass, magnetism and the ability to sink or float *I can explain and demonstrate the difference between a solid, liquid, and gas. *I can describe and classify objects based on their physical properties. *I can demonstrate how heating or cooling causes matter to change its state. *I can construct and deconstruct a mixture. *I can identify observable properties of a mixture. *I can identify mixtures when given a set of samples. *I can demonstrate that the properties of materials stay the same even when mixed together. *I can explain and demonstrate mechanical energy and how we use it. *I can explain and demonstrate heat, light, and sound energy and how we use. *I can explain how pushing and pulling an object can cause it to move and change position. *I can recognize when work has moved an object over a distance. *I can investigate how tools help objects move. *I can observe and describe how the forces of magnetism and gravity act on an object.

Second Grading Period	*Continue Energy and Matter FOSS Module 1	
	Earth and Sky FOSS Module 2 <u>Inv. 1:</u> Learn that soils are composed of essentially the same types of materials (inorganic earth materials and humus.) Explore how rocks break into smaller pieces through weathering. <u>Inv. 2</u>: Use stream-tables to observe erosion and deposition. Identify, compare, and describe the formation of landforms. Identify events that can change the Earth's surface rapidly. <u>Inv. 3</u>: Identify natural resources and classify them as renewable and nonrenewable. Identify ways that natural resources are useful. <u>Inv. 4</u>: Observe day-to-day weather changes in different locations at the same time. Explore evaporation and condensation and the Sun's connection to the water cycle. Observe and record the apparent motion of the Sun. Construct models that demonstrate the relationship of the Sun, Earth, and Moon. Construct models to show the position of the planets in relation to the Sun.	*I can observe, measure and record temperature using a thermometer. *I can explain how wind direction affects weather. *I can predict changes in the weather in different locations. *I can compare weather data, such as, temperature, wind, and precipitation. *I can explain how large forces, such as, volcanic eruptions, landslides, and earthquakes rapidly change the earth's surface. *I can describe the slow process of weathering. *I can identify the characteristics of different landforms and explain how they are formed. *I can observe, describe and compare soils from different locations and their contents. *I can explain that soil is made up of pieces of weathered rock, decomposed plants and/or animal remains. *I can create a model of the Sun, Earth, and Moon system and describe the limitations of my model. *I can know that the moon is a satellite that is mostly rock with no atmosphere or large amounts of water. *I can know that the Earth is a planet with an atmosphere and large amounts of water. *I can draw the Sun and describe that it provides heat and light. *I can demonstrate that the Sun's energy provides heat for the water cycle. *I know that the Sun is a star composed of gases. *I can read a table to determine the size order of the planets in our solar system. *I can arrange the planets in the order that they orbit around the Sun. *I can identify Earth's natural resources. *I can identify properties and uses of objects made from natural resources. *I can sort and list the uses of resources. *I can learn how to responsibly use and conserve all materials.

Third Grading Period	*Continue Earth and Sky FOSS Module 2	
	Structures of Life FOSS Module 3 Inv. 1: Describe and compare seed properties. Inv. 2: Examine seeds to determine similarities and differences in the way they grow. Explore plant structures and functions. Inv. 3: Observe and record some of the structures and behaviors of a crustacean and compare it to other organisms. Create a habitat that supports the needs of the crustacean. Learn about adaptation of organisms in different environments. Engage in outdoor simulation activity to explore food chains. Inv. 4: Observe the articulated human skeletal system and compare to rodent bones from an owl pellet. Explore joints and their role in movement focusing on opposable thumbs. Build models of muscle bone systems to see how muscles move bones. Investigate and analyze fingerprint patterns.	*I can observe and describe the physical characteristics of different environments. *I can describe how an environment supports living things. *I can describe environmental changes. *I can describe how those changes affect organisms. *I can describe how energy flows through a food chain. *I can predict how change in the food chain affects the ecosystem. *I can explore how living things survive in their environment. *I can compare and contrast inherited characteristics and learned behaviors. *I can compare the life cycles of plants and animals.
Fourth Grading Period	*Continue Structures of Life FOSS Module 3	