PHYSICAL SCIENCE

First Grade	Second Grade	Third Grade
Matter Observe their surroundings in their environment. Compare and contrast their findings. Determine the three types of matter by learning about volume, shape, and size. Determine the properties of matter.	**Matter** Describes chemical changes present when two substances are combined Utilizes all five senses to accurately describe the characteristics of all three states of matter	**Atoms** Recalls the history of chemistry Describes the relationship between matter and atoms Identifies and builds elements on the Atomic Diagram Board Discriminates between electrons, protons, and neutrons Describes and demonstrates the formation of atomic number and weight by accurately constructing atoms on the Bohr Model Board Describes the formation of water, its physical properties in all three states of matter, and how it is measured
Water Observe the surface tension properties of water. Observe what is water pressure. Observe water pressure on a large scale. Observe the density of water in relation to various objects.	**Water** Discriminates between and describes atmospheric and hydrostatic pressure Identifies emulsifying agents and describes how they work with other substances	**Chemical Properties** Understands that the combination of substances may or may not result in a chemical reaction

Magnets Introduce the concept of magnets and the history of the discovery Introduce the concept of force and its, using magnets	**Magnets** Recalls the history of the discovery of magnets Defines a magnet and describes how they work with the example of a compass Describes the process of magnet formation with domains and poles Identifies forces that affect domains within a magnet Understands how to separate specific elements within a simple mixture	**Periodic Table** Describes the structure of the periodic table of elements, its groupings, and the qualities that determine into which group each element is placed Researches and reports on the history and use of an element Explains the concept of chemical equilibrium in a reaction Identifies and discriminates between homogeneous and heterogeneous mixtures
Measurement Introduce students on the various methods of measurement by introducing them in a historical context. The student uses various tools to measure objects in the experiment. Introduce the student to the concept of equilibrium when weighing objects. Introduce the student to the concept of equilibrium when weighing objects. Introduce the student to using a thermometer	**Measurement** Recalls the various methods of measurement and can accurately them in a historian context recalls the concept of equilibrium and can accurately use the concept when weighing objects Continues to use various tools to measure objects in experiments	**Atoms / Measurement** Identifies at least 10 of the physical properties of matter Identifies the specific elements necessary for life and their corresponding atomic structure Describes how different molecules interact with one another in relation to noble and inert gases
Mass Introduce the student that air has mass	**Mass** Recall the concept that air has mass	**Chemistry** Observes and describes the processes present in a chemical reaction

	Introduce the effect of various chemical reactions to air Identify the process that can be used to change the properties of material construction, concept, outcome	Describes chemical changes in the process of oxidation Discriminates between an acid and a base and explains what results from their combination Describes the relationship between starches and iodine in the human diet
Energy & Electricity Introduce the student to the electromagnetic spectrum.	**Energy & Electricity** Describes the relationship between energy, heat, light, and movement Describes the function of a circuit through terminals and batteries Discriminates between the different characteristics and functions of insulators and conductors	**Energy & Electricity** Continued exploration of energy / electricity
Energy/Friction Introduce the student to the concept of friction, force, and effort	**Energy/Friction** Recall the concepts of friction, forces, and effort	**Energy/Friction** Continued exploration of the concepts of friction, forces, and effort
Electricity Introduce the student to the concept of static electricity Introduce the student to the concept of friction, force, and effort.	**Electricity** Constructs a switch and describes its function within a circuit Describes the formation of an electromagnet	**Electricity**
Weather Introduce the student to the three parts of the Earth?	**Weather**	**Weather** Describes Earth's magnetosphere and its function (thermodynamics)

Introduce the student to the scientific definition of weather.	Identifies the elements within Earth's atmosphere and their relation to the oxygen cycle Identifies discriminates between, as well as describes all four layers of the atmosphere Understands and demonstrates how the mass of air affects the air pressure in different atmospheric layers Describes how temperature affects air pressure Constructs and accurately reads a barometer Identifies all three factors that affect the temperature on Earth Constructs and accurately reads a weather vane Measures wind speed accurately using an anemometer Describes the multiple roles of moisture in the atmosphere Discriminates between, and describes the characteristics and formation of stratus, cumulus, cirrus, and nimbus clouds	Converts temperatures back and forth between Fahrenheit and Celsius Discriminates between continental, maritime, polar, and tropical air masses, and their relationship to anticyclones and cyclones Describes the air cycle and its relation to air movement on the Earth's surface Identifies the factors affecting air movement in the troposphere and the names of the resulting movements Describes the following four types of precipitation and how they are formed: ● Rain ● Snow ● Sleet ● Hail Understands relative humidity and its relation to the dew point Constructs, accurately read and explains the function of hygrometers Describes how warm and cold fronts form and the resulting weather patterns Explains the formation of a squall line and the resulting weather patterns Describe the formation and characteristics of the following weather phenomena: ● Convection Thunderstorm ● Tornado ● Hurricane