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|  | **Earth /Space Science**  ***Students in grade four will understand that the Earth and Earth materials, as we know them today, have developed over long periods of time, through constant change processes. The Earth has been continuously changing since it was first formed with some changes due to a slow process (erosion, weathering) and other changes due to a rapid process***  ***Students will:*** | **Physical Science**  ***Students in grade four will understand that energy is necessary for change to occur in matter. Energy can be stored, transferred and transformed, but cannot be destroyed. Sound is a form of energy caused by vibrating objects which travels in waves in all directions and plays an important role in our lives***  ***Students will:*** | **Physical Science**  ***Students in grade four will understand that light is a form of radiant energy which travels in waves in a straight line unless it strikes and object, is reflected by a mirror, refracted by a lens, or absorbed by an object.***  ***Students will:*** |
| **Change** | *Describe the continuous process of the rock cycle and its stages* | *Demonstrate how pitch and volume can be modified*  *Observe and describe sound waves through solids, liquids and gas* | *State the white is a mixture of all colors and black is the absence of colors* |
| **Interrelationships** | *Sort rocks based on physical properties*  *Identify that rocks and minerals are formed in the crust and that minerals are found within rocks* | *Determine the relationship between pitch and frequency* | *Recognize that colors are useful and important*  *Classify objects by color* |
| **Scale** | *Compare layers of the Earth* | *Infer that volume decreases as distance increases* | *Compare and contrast sound waves and light waves* |
| **Modeling** | *Create a model of the four layers of the Earth* | *Create musical instruments*  *Create a drawing of the human ear and trace the path of how we hear and recognize sounds* | *Illustrate how light travels in straight lines, can be reflected and refracted*  *Name the colors of the spectrum-prisms* |
| **Inquiry/Process** | *Explain how fossils are made and what they tell us.*  *Test minerals using hardness scale, streak testing, and physical properties.*  *Describe what conditions must be present for crystals to form.*  *Identify different shapes of crystal patterns that form rocks and minerals.* | *Explore the role sound plays in our lives – and its positive and negative effects* | *Infer that energy can be released from some matter in the form of light energy*  *Explain the difference between naturally and artificially produced light* |

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|  | **Physical Science**  ***Students in grade four will understand that energy exists in various forms, including electric which can be transferred better than other forms of energy. Interactions with some forms or energy can be both helpful and harmful.***  ***Students will:*** | **Life Science**  ***Students in grade four will understand that:***  ***All living organisms have identifiable structures and characteristics allowing for survival.***  ***The plants and animals of the ocean are uniquely suited to survive in their environment and are interrelated to each other.***  ***There is a relationship between the biology of the plants and animals of the ocean to the physical environment and topography of the ocean. This relationship is important to people using the ocean as a resource.***  ***Students will:*** |
| **Change** | *Explain the properties of static electricity by describing how electrons move and materials become negatively or positively charged.*  *Explain how to magnetize an object* | *Describe the food web as it pertains to ocean life*  *Identify the topography of the ocean floor and factors that create change* |
| **Interrelationships** | *Describe the difference between static and current electricity*  *Indicate and compare permanent and temporary magnets understanding that magnetism is being transferred*  *Hypothesize and list objects that are attracted to a magnets* | *Describe adaptations to ocean life, food supply, light, temperature*  *Locate and compare the continents and oceans* |
| **Scale** | *N/A* | *Compare amounts of land and water on the earth’s surface* |
| **Modeling** | *Identify and create both series and parallel electric circuits using switches, insulators, and conductors.*  *Describe safety rules and demonstrate*  *Cite examples of static electricity from their environment*  *Illustrate the Earth’s magnetic field* | *Create a model of a wave labeling the parts*  *Create a model of the ocean floor* |
| **Inquiry/Process** | *Demonstrate how to make static electricity*  *Infer how people’s lives were and would be different without electricity and identify common uses of electrical energy. Infer the importance of magnets –industry, daily life, and medical.*  *Demonstrate Laws of Magnetic Attraction* | *List potential issues for oceans and ocean life in the future and propose solutions*  *Identify forms of ocean life and research an ocean animal and present PPT – habitat, food, physical characteristics and interesting facts* |