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|  | **Earth /Space Science**  ***Students in grade two will understand that the Earth and Earth materials, as we know them today, have developed over long periods of time, through constant change processes.***  ***Students will:*** | **Physical Science**  ***Students in grade two will understand that the motion of an object is affected by force.***  ***Students will:*** | **Life Science**  ***Students in grade two will understand that all living organisms have identifiable structures and characteristics that allow for survival***  ***Students will:*** |
| **Change** | *Observe and record the changes and variations of local weather.* | *Observe the change in position of an object through the application of magnetic forces* | *Describe the supplies, energy and materials necessary for growth and reproduction.*  *Identify the sun as the ultimate source of energy for life cycles on Earth.*  *Describe the basic life functions of birds, insects and trees.* |
| **Interrelationships** | *Describe the relationship between climate changes and weather and the local impact weather has on organisms in a community.* | *Describe the actions of magnets which attract or repel thus changing the position of an object*  *Observe that the force of magnetism can affect objects through gases, liquids and solids.* | *Describe the concept that nonliving things can be human-created or naturally occurring and do not live or thrive*  *State that birds and insects and trees need air, water, shelter and food in order to live*  *Describe how birds, insects and trees have adapted to their environment in order to survive.*  *Describe the characteristics and adaptations of birds and insects for food collection, growth, survival and reproduction.*  *Describe how the structures of a tree help it to grow, survive and reproduce.* |
| **Scale** | *Compare and contrast the features of local weather with the features of regional and global climate.* | *Compare the strengths of magnetic forces in varying sized and types of magnets and across varying distances.* | *Compare and contrast the differences in life spans between birds, insects and trees.* |
| **Modeling** | *Construct simple models or dioramas depicting the changes in local weather and the changes in features accompanying the changes.* | *Create visual displays of magnetic fields using simple magnets and iron filings.* | *Draw and label the life cycle stages of birds, insects and trees.* |
| **Inquiry/Process** | *Predict, observe and record how changes in local climate and weather may influence an organism’s behavior, adaptations, and needs over time.* | *Test and sort various objects to determine if they can be attracted by a magnet.*  *Explore the role magnets play in our lives – and their positive and negative effects.* | *Predict the efficacy of specific adaptations in living organisms to meet the needs of climate change.*  *Observe and record how changes in local climate and weather may influence an organism’s behavior, adaptations, and needs over time.* |

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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* |