2ND GRADE SCIENCE

Students should be able to use science and engineering practices and understand the following content:

Science and Engineering Practices

- Development of habits of mind that are necessary for scientific thinking and that allow students to engage in science in ways similar to those used by scientists and engineers
- Asking and answering questions about the natural world
- Developing and using models to (1) build understanding of phenomena, processes and relationships, (2) test devices or solutions, or (3) communicate ideas to others
- With teacher guidance, conduct structured investigations to answer scientific questions, test predictions, and develop explanations
- Collecting and analyzing data from investigations to construct explanations and communicate results
- Using mathematical and computational thinking in collecting and communicating data
- Using technology to collect data and in communication of results

Earth Science (Weather)

- Demonstrate an understanding of daily and seasonal weather patterns
- Review weather terminology
- Analyze local weather data to look for daily and seasonal patterns
- Develop and use models to describe and compare the effects of wind (moving air) on objects
- Explain why certain safety precautions are needed during severe weather

Physical Science (Solids, Liquids, Magnets)

- Demonstrate an understanding of the observable properties of solids and liquids and properties of magnets
- Demonstrate how solids and liquids can be mixed and also separated
- Conduct structured investigations to demonstrate the effects of heating and cooling on solids and liquids
- Investigate the properties of magnets
- Compare the effects of magnets on various materials
- Communicate how magnets are used in everyday life
- Demonstrate an understanding of the effects of pushes, pulls, and friction on the motion of objects

Life Science (Animal Characteristics)

- Demonstrate an understanding of how the structures of animals help them survive and grow in their environments
- Classify animals based on their physical characteristics
- Describe the stages of development in selected animals
- Communicate how animals can change their environments

Activities:

- Keep track of the daily temperature for a week by using an indoor/ thermometer. Write the temperatures on a calendar.
- On a map with weather symbols, identify what each symbol repres
- Examine weather maps from one week and discuss the changes
- Watch a program that describes safety precautions during severe weather
- Identify solids and liquids around your home.
- Cook or bake something and discuss the changes in the ingredien put together.
- Make some ice cubes and talk about the differences in liquid wate the solid ice.
- Use a magnet and check to see what kinds of materials are attrac (Do not place magnets on a television screen and electronic devic
- View educational television programs that have information on ani
- There are Web sites that also have quality information on animals other science topics.
- Take a walk in your neighborhood, visit a park, or visit a zoo. Talk the various animals that you see and how they look and what they
- Visit a pet store and talk about what the animals that you see nee live.
- Visit a butterfly garden and find a spot where you can watch a butter
- Webcon -1.2-at 1 Tf 12.9/ryy 4T or0W- BTf 12.9l.61mt1 /TT3pT17

Bringing the Rain to Kapiti Plain

- Cobb, Joanna *The Magic School Bus Gets Baked in a Cake: A Book about Kitchen Chemistry*
- Fowler, Alan *It Could Still Be Water*
- Ganeri, Anita *From Caterpillar to Butterfly (How Living Things Grow)*
- Heiligman, Deborah *From Caterpillar to Butterfly*
- Mandel, Muriel *Simple Weather Experiments With Everyday Materia*
- Pfeffer, Wendy *From Tadpole to Frog*
- Rosinsky, Natalie M.