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| **Why is it important to understand the layers of the earth in relationship to the study of volcanoes and earthquakes?** | Earth Science: Earth Forces | • Identify and describe the layer of the earth  
• Recognize that gravity is a force that pulls objects toward the center of the earth  
• Investigate theory of plate tectonics  
• Identify fault lines and describe their role in earthquakes  
• Identify types and parts of volcanoes  
• Explain causes of volcanoes and earthquakes  
• Explain what occurs during volcanic eruptions and earthquakes  
• Describe how earthquakes are measured  
• Describe effects of volcanoes and earthquakes  
| | Life Science: Plants and Animals | • Recognize that plants and animals, including humans, resemble their parents and other members of the species  
• Distinguish between inherited traits and acquired characteristics  
• Recognize that competition occurs within a species | | Assemble a system connected in a parallel/series circuit |
| | Physical Science: Magnetism | • Recall and review magnets  
• Define terms poles, attract/repel  
• Review magnetic and non magnetic materials | | Oral explanation, writing, or illustration |
| | Electricity | • Compare and contrast current and static electricity  
• Construct, compare and contrast series and parallel circuits  
• Describe the elements of a working circuit  
• Demonstrate how a switch affects the flow of electricity  
• Describe observations of interactions between energy and matter (e.g. light bulb, lights)  
• State examples of forms of energy and how energy is changed from one form to another (e.g. chemical energy from battery to light energy)  
• Measure conductivity using a circuit testers  
• Compare conductors and insulators  
• State electrical safety rules | | Critique a sample of their own work using the teacher's standards and criteria for quality (rubric). |
| | Simple Machines | • Identify and describe types of simple machines-lever, wheel and axle, pulley, inclined plane (screw and wedge) | | Plan, design and implement a short term and long term investigation |
| | | | | Create posters campaigning for healthy food choices using food labels |

Diocese of Buffalo 2008 - Science/Health Gr. 4
What is the role of the circulatory system in the human body?

How do we keep our circulatory system healthy?

What are the parts of a cell?

What are the functions of different cell parts?

How does good nutrition help the digestive system?

What is the function of the digestive system?

How does good nutrition and exercise contribute to the development of healthy bones and muscles?

**Circulatory System**

- Explain that the motion of an object is changed by pushing or pulling
- Examine the way friction affects how objects move
- Use terms mechanical change, mechanical force/energy
- Explain how simple machines affect work (force and distance)

**Digestive System**

- Identify and explain the function of parts of the circulatory system
- Describe the process of blood pumped through the heart and body
- Examine safety and first aid issues appropriate to blood
- Recognize the relationship of good nutrition and exercise to coronary health

**Health Science Nutrition**

- Identify and explain the function of each part of the digestive system
- Traces the process of digestion from start to finish
- Identify and label cell parts
- Explain the functions of cell parts
- Identify nutrient groups on a food pyramid
- Demonstrate an understanding of the relationship of good nutrition to the digestive system

- Explain what nutrients are and how they help the body
- Read and interpret information on a food label
- Explore how appropriate food choices help to maintain healthy body systems
- Recognize healthy and unhealthy ways to deal with eating disorders and other manifestations of emotional conflict
- Compare communicable and non communicable diseases
- Investigate how diseases are spread
- Discuss negative effects of drugs and alcohol on body systems

**General Skills:**

- Safety procedures in classroom, laboratory and field
- Use metric and standard measurement
- Label proper units of measurement
- Choose correct measurement tool
- Identify and control variable /factors
- Plan, design and implement a short term investigation
- Make connections among common science themes (cycles, patterns etc.)

http://www.nsta.org/

http://edheads.org/activities/simple-machines/index.htm