

PLANNED COURSE

SUBJECT AREA: Science and Technology

GRADE/COURSE: 2

Standard And Strand 3.1 Unifying Themes

OBJECTIVES	PERFORMANCE INDICATORS	ASSESSMENTS (Variety as per Section 4.52, Chapter 4)
<p>A. Identify parts of natural/human made systems.</p> <p>B. Identify different types of models and their uses.</p> <p>C. Identify patterns that occur in nature.</p> <p>D. Develop an awareness of scale.</p> <p>E. Recognize the change in systems.</p>	<p>Identify system parts that are natural and human made.</p> <p>Identification of different types of models.</p> <p>Identify, name and discuss patterns found in nature.</p> <p>Identify the use of scale as it relates to the measurement of distance, volume and mass.</p> <p>Describe change to objects caused by heat, cold, light or chemicals.</p>	<p>Given pictures of models or actual models, identify and tell the use of the model.</p> <p>Teacher observation of the use of scale.</p> <p>Given different object names, identify verbally or in writing, how the object changes with heat, cold, light or chemicals.</p> <p>Tests.</p> <p>*More specific assessments will be designed upon purchase of new science materials.</p>

SUBJECT AREA: Science and Technology

GRADE/COURSE: 1

Standard And Strand 3.2 Inquiry and Design

OBJECTIVES	PERFORMANCE INDICATORS	ASSESSMENTS (Variety as per Section 4.52, Chapter 4)
A. Recognize the importance of language to communicate an idea. B. Describe objects through observation. C. Use the elements of scientific inquiry to solve problems. D. Recognize a problem and propose a solution.	Use oral and written communication to describe observations and develop explanations. Describe objects using the five senses. Generate questions that could start an investigation. Make predictions about the outcome of the experiment. Complete simple group experiments. Record results and develop a conclusion for the experiment as a class. Recognize problems and explore possible solutions.	Explain orally and write observations; develop explanations using the scientific method. Using a graphic organizer, describe things using the five senses. Using the scientific method, complete an experiment. Discuss problems and various possible solutions.

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GRADE/COURSE: 2

Standard And Strand 3.4 Physical Science, Chemistry and Physics

OBJECTIVES	PERFORMANCE INDICATORS	ASSESSMENTS (Variety as per Section 4.52, Chapter 4)
A. Recognize the basic concepts about the structure and properties of matter. B. Know basic types of energy forms. C. Observe and describe different types of force and motion. D. Describe the composition and structure of the universe and the earth's place in it.	Describe matter in terms of mass and volume. Classify a variety of items as solid, liquids. Investigate physical and chemical changes. Identify basic types of energy and how it is made. Construct models that demonstrate motion (sound – tin can telephone; air – pinwheels, kites, sailboats; magnets – magnet races) recognize the relationship between the earth and the sun effect the seasons, and day and night.	Experiments Tests, reports, projects. Project and presentation Tests, project and presentation. *More specific assessments will be designed upon purchase of new science materials.

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GRADE/COURSE: 2

Standard And Strand 3.5 Earth Sciences

OBJECTIVES	PERFORMANCE INDICATORS	ASSESSMENTS (Variety as per Section 4.52, Chapter 4)
A. Know basic landforms. B. Know types and uses of earth materials. C. Know basic weather elements. D. Recognize the earth's different water resources.	Recognize basic landforms. Observe different types of rocks and soils; classify them by their physical characteristics. Identify and describe different types of precipitation. Identify weather information sources (newspaper, television, radio, internet). Interpret basic data from weather charts and graphs. Know that approximately $\frac{3}{4}$ of the earth's surface is covered by water. Describe locations of fresh and salt water in or near the state of Pennsylvania. Label different bodies of water on the earth	Tests, drawings, diorama Tests, graphic organizers. Tests, project (art), poster and presentation. Discuss sources and use to locate weather information (ex. Given sources after discussion, locate weather information appropriately). Tests, including various charts and graphs. Tests, including maps to identify fresh and salt water areas and different bodies of water.

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Standard And Strand 3.6 Technology Education

OBJECTIVES	PERFORMANCE INDICATORS	ASSESSMENTS (Variety as per Section 4.52, Chapter 4)
<p>A. Identify biotechnologies used to treat and convert waste.</p> <p>B. Know physical technologies of structural design, analysis and engineering finance, production, marketing, research and design.</p>	<p>Identify waste management methods (landfills, compost piles)</p> <p>Identify materials that can be recycled</p> <p>Identify different recycling processes</p> <p>Identify the differences between natural and manufactured items,</p> <p>Recognize manufactured items that are used at home and in the school environment.</p> <p>Describe and discuss different skills used in construction.</p>	<p>Tests</p> <p>Projects</p> <p>Discussions</p> <p>*More specific assessments will be designed upon purchase of new science materials.</p>

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Standard And Strand 3.7 Technological Devices

OBJECTIVES	PERFORMANCE INDICATORS	ASSESSMENTS (Variety as per Section 4.52, Chapter 4)
A. Explore the basic tools, simple materials and techniques to safely solve problems. B. Select appropriate instruments to study materials. C. Identify basic computer operations and skills. D. Use basic software.	Demonstrate the basic use of machines. Identify and categorize appropriate tools to solve simple problems. Choose an instrument for an assigned task. Demonstrate simple skills of measuring, recording and cutting. Use the keyboard, monitor, CPU and mouse to perform basic skills. Produce and print a simple document. Apply operating skills to perform basic computer tasks using grade-level appropriate software.	*More specific assessments will be designed upon purchase of new science materials.

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Standard And Strand 3.8 Science, Technology and Human Endeavors

OBJECTIVES	PERFORMANCE INDICATORS	ASSESSMENTS (Variety as per Section 4.52, Chapter 4)
A. Recognize that people select, create and use science and technology. B. Identify the basic human needs. C. Explore ways to find a solution to a problem.	Develop an awareness of how technology affects people and their world. Develop an awareness of a simple invention used daily. Develop an awareness of simple inventions used daily. Discuss solutions to community problems without the use of modern tools. Identify the positive and negative aspects of modern tools.	*More specific assessments will be designed upon purchase of new science materials.