CARLISLE AREA SCHOOL DISTRICT
Carlisle, PA 17013

ELEMENTARY SCIENCE

GRADE K

Date of Board Approval: May 21, 2009

CARLISLE AREA SCHOOL DISTRICT
PLANNED INSTRUCTION COVER PAGE

Title of Course: Science Subject Area: Science Grade Level: Kindergarten

Course Length: (Semester/Year): Year Duration: _____ Frequency: _____

Prerequisites: Not Applicable Credit: Not Applicable Level: Not Applicable

Course Description/Objectives: The district shall provide for attainment of the academic standards per Chapter 4, Section 4.12. Each student shall demonstrate proficiency in the following areas: unifying themes; inquiry and design; biological sciences; physical science, chemistry and physics; earth sciences; technology education; science, technology and human endeavors; watersheds and wetlands, renewable and non-renewable resources; environmental health; agriculture and society; integrated pest management; ecosystems and their interactions; threatened, endangered and extinct species; humans and the environment; and, environmental always and regulations.

Major Text(s)/Resources:

Curriculum Writing Committee: Cindy Birdwell Bonnie Mehls Deb Them Traci Brunner Michelle Nye Heather Luckenbaugh Yvette Reidy Megan Baitzel Allison Shughart D. Bailor Karen Lyter Rachel Placek Sherry Mann Kim Walters

Unit: Safety	**Subject Area: Science**	**Grade: K**
PA Academic Standards	**Performance Indicators**	
3.2D. Recognize and use the technological design process to solve problems.	• Recognize and explain basic problems. (e.g., fire accident, etc.) • Identify possible solutions and their courses of action.	
3.2D. Recognize and use the technological design process to solve problems.	• Try a solution. • Describe the solution, identify its impacts and modify if necessary. • Show the steps taken and the results.	
3.2D. Recognize and use the technological design process to solve problems.	• Compare and contrast things that are unsafe and safe. • List and practice school rules.	

Unit: All About Me	Subject Area: Science	Grade: K
PA Academic Standards	**Performance Indicators**	
3.2B Describe objects in the world using the five senses.	• Recognize observational descriptors from each of the five sense (e.g., see-blue, feel-rough). • Use observations to develop a descriptive vocabulary. • Identify the five senses.	
3.3A Know the similarities and differences of living things.	• Identify the processes of humans. • Identify major external and internal body parts. (heart, lungs, brain, stomach, bones, muscles, skin, eyes, ears, nose, mouth, waist, ankle, hip, shoulders, elbows)	
3.3B Know that living things are made up of parts that have specific functions.	• Identify major external and internal body parts and their function. (heart, lungs, brain, stomach, bones, muscles, skin, eyes, ears, nose, mouth, waist, ankle, hip, shoulders, elbows)	
3.3C Know that characteristics are inherited and, thus, offspring closely resemble their parents.	• Identify unique personal characteristics (eye color, hair color, height, gender).	
3.3C Know that characteristics are inherited and, thus, offspring closely resemble their parents.	• Compare visible growth changes from infancy to adult.	

Unit: Season/Weather	Subject Area: Science	Grade: K
PA Academic Standards	**Performance Indicators**	**Assessment**
3.1B Know models as useful simplifications of objects or processes.	• Identify different types of models (e.g., globes, calendar, graphs, maps, pictures). • Identify and apply models as tools for predictions and insight. using a wide variety of maipulatives.	
3.1C Illustrate patterns that regularly occur and reoccur in nature.	• Use knowledge of natural patterns to predict next occurrences (e.g., seasons, leaf patterns).	
3.1 E Recognize change in natural and physical systems.	• Examine and explain change by using time and measurement. (e.g., calendar) • Describe the change to objects caused by heat, cold, light or chemicals.	
3.5C Know basic weather elements.	• Observe and identify daily weather including temperature, precipitation and graph the data. • Explain how the different seasons affect plants, animals, food availability and daily human life.	
3.5C Know basic weather elements.	• Identify the four seasons. • Categorize characteristics of seasons.	

Unit: Scientific Method	**Subject Area: Science**	**Grade: K**
PA Academic Standards	**Performance Indicators**	
3.2A Identify and use the nature of scientific and technological knowledge.	• Distinguish between a scientific fact and a prediction. • Explain observations and results.	
3.2C Recognize and use the elements of scientific inquiry to solve problems.	• Respond to questions related to objects or organisms that can be explained through use of scientific investigations. • Ask questions about how things happen.	
3.2C Recognize and use the elements of scientific inquiry to solve problems.	• Conduct a class experiment and state observations and show conclusions.	

Unit: PA Farms	**Subject Area: Science**	**Grade: K**
PA Academic Standards	**Performance Indicators**	**Assessment**
4.3A Know that plants, animals and humans are dependent on air and water.	• Identify living and nonliving things. • Classify and categorize living and non-living things on a farm.	
4.4B Identify the role of the sciences in Pennsylvania agriculture.	• Identify and name common animals found on Pennsylvania farms (cow, horse, groundhog, pig, sheep, etc). • Identify apples as an important crop in Pennsylvania.	
4.4C Know that food and fiber originate from plants and animals.	• Identify agricultural products that are local and regional. • List products that come from farms such as wool, milk, eggs and corn.	
4.6A Understand that living things are dependent on nonliving things in the environment for survival.	• Farm animals depend on people to fulfill their needs. • Know that living things are dependent on air and water.	
4.7A Identify differences in living things.	• Recognize that farm animals resemble their parents. • Identify animals and plants on local farms.	

Unit: Plants	**Subject Area: Science**	**Grade: K**
PA Academic Standards	**Performance Indicators**	**Assessment**
3.1A Know that natural and human-made objects are made up of parts.	• Identify plant system parts that are natural. (roots, stems, leaves, seeds, flower)	
3.3A Know the similarities and differences of living things.	• Describe basic parts of plants. (roots, stem, leaves, seeds, flower)	
3.3B. Know that living things are made up of parts that have specific functions.	• Identify the functions of each part of a plant. (roots, stem, leaves, seeds, flower)	
4.6A Understand that living things are dependent on nonliving things in the environment for survival.	• Identify basic needs of a plant and explain how its needs are met.	

Adaptations/Modifications for Students with I.E.P.s

Adaptations or modifications to this planned course will allow exceptional students to earn credits toward graduation or develop skills necessary to make a transition from the school environment to community life and employment. The I.E.P. team has determined that modifications to this planned course will meet the student's I.E.P. needs.

Adaptations/Modifications may include but are not limited to:

INSTRUCTION CONTENT
- Modification of instructional content and/or instructional approaches
- Modification or deletion of some of the essential elements

SETTING
- Preferential seating

METHODS
- Additional clarification of content
- Occasional need for one to one instruction
- Minor adjustments or pacing according to the student's rate of mastery
- Written work is difficult, use verbal/oral approaches
- Modifications of assignments/testing
- Reasonable extensions of time for task/project completion
- Assignment sheet/notebook
- Modified/adjusted mastery rates
- Modified/adjusted grading criteria
- Retesting opportunities

MATERIALS
- Supplemental texts and materials
- Large print materials for visually impaired students
- Outlines and/or study sheets
- Carbonless notebook paper
- Manipulative learning materials
- Alternatives to writing (tape recorder/calculator)