

**CARLISLE AREA SCHOOL DISTRICT**  
**Carlisle, PA 17013**

**ELEMENTARY SCIENCE**

**GRADE 3**

Date of Board Approval: May 21, 2009  
Revised Date: January 19, 2012

**CARLISLE AREA SCHOOL DISTRICT  
PLANNED INSTRUCTION COVER PAGE**

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

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

<b>Unit: Simple Machines</b>	<b>Subject Area: Science</b>	<b>Grade: 3</b>
<b>PA Academic Standards</b>	<b>Performance Indicators</b>	<b>Assessments</b>
3.2A. Identify and use the nature of scientific and technological knowledge.	<ul style="list-style-type: none"> <li>● Predict, collect and observe information in an experiment.</li> </ul>	
3.2C. Recognize and use the elements of scientific inquiry to solve problems.	<ul style="list-style-type: none"> <li>● Make a hypothesis by creating questions before conducting experiments.</li> <li>● Identify and recognize what certain inquiry tools are used for.</li> </ul>	
3.2C. Recognize and use the elements of scientific inquiry to solve problems.	<ul style="list-style-type: none"> <li>● Apply the scientific method.</li> <li>● Understand that science is raising questions and seeking answers by careful observation and investigation.</li> </ul>	
3.1E. Recognize change in natural and physical systems.	<ul style="list-style-type: none"> <li>● Discuss changes that occur from observations when conducting experiments.</li> </ul>	

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<b>PA Academic Standards</b>	<b>Performance Indicators</b>	<b>Assessments</b>
3.1B. Know models as useful simplifications of objects or processes.	<ul style="list-style-type: none"> <li>• Give examples of simple machines in everyday life.</li> <li>• Know that simple machines make work easier.</li> </ul>	
3.1B. Know models as useful simplifications of objects or processes.	<ul style="list-style-type: none"> <li>• Explain and construct four major groups of simple machines.</li> </ul>	
3.1E Recognize change in natural and physical systems.	<ul style="list-style-type: none"> <li>• Name and demonstrate push, pull, and lift as types of motion (movement).</li> </ul>	
3.2A Identify and use the nature of scientific and technological knowledge.	<ul style="list-style-type: none"> <li>• Predict the movement of objects as direction, shape, or speed change.</li> <li>• Predict, collect and observe information about how to increase or decrease friction.</li> </ul>	
3.2A Identify and use the nature of scientific and technological knowledge.	<ul style="list-style-type: none"> <li>• Discuss changes that occur from observations when conducting experiments.</li> </ul>	

Unit: Simple Machines	Subject Area: Science	Grade: 3
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3.2B Describe objects in the world using the five senses.	<ul style="list-style-type: none"> <li>Describe changes in movement and parts using all five senses.</li> </ul>	
3.2C Recognize and use the elements of scientific inquiry to solve problems.	<ul style="list-style-type: none"> <li>Make hypothesis by creating questions before conducting experiments.</li> </ul>	
3.2C Recognize and use the elements of scientific inquiry to solve problems.	<ul style="list-style-type: none"> <li>Apply the scientific method to areas within simple machines.</li> </ul>	
3.4B Know basic energy types, sources and conversions.	<ul style="list-style-type: none"> <li>Identify and give examples of motion.</li> </ul>	
3.4C Observe and describe different types of force and motion.	<ul style="list-style-type: none"> <li>Compare push, pull, and lift.</li> <li>Compare and contrast different types of motion (e.g., bouncing ball, moving in a straight line, back and forth, merry-go-round).</li> </ul>	

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<p>3.4C Observe and describe different types of force and motion.</p>	<ul style="list-style-type: none"> <li>● Identify and give examples of force.</li> <li>● Describe the location of parts in the three classes of levers.</li> </ul>	
<p>3.6C Know physical technologies of structural design, analysis and engineering, finance, production, marketing, research and design.</p>	<ul style="list-style-type: none"> <li>● Construct a simple machine.</li> <li>● Explain how simple machines are used in transportation systems.</li> </ul>	
<p>3.8A Know that people select, create and use science and technology and that they are limited by social and physical restraints.</p>	<ul style="list-style-type: none"> <li>● Explain how simple machines make work easier.</li> </ul>	

Unit: Plants	Subject Area: Science	Grade: 3
PA Academic Standards	Performance Indicators	Assessments
3.1A Know that natural and human-made objects are made up of parts.	<ul style="list-style-type: none"> <li>● Identify and describe the jobs of different plant parts.</li> </ul>	
4.6A Understand that living things are dependent on nonliving things in the environment for survival.	<ul style="list-style-type: none"> <li>● Identify plants and animals with their habitat and food sources.</li> </ul>	
4.6A Understand that living things are dependent on nonliving things in the environment for survival.	<ul style="list-style-type: none"> <li>● Identify environmental variables that affect plant growth.</li> <li>● Classify plants as invasive or non-invasive</li> </ul>	
4.6B Understand the concept of cycles.	<ul style="list-style-type: none"> <li>● Explain the process of photosynthesis.</li> <li>● Explain the life cycle of a seed producing plant.</li> </ul>	
4.7A Identify differences in living things.	<ul style="list-style-type: none"> <li>● Identify local plants or animals and describe their habitat.</li> </ul>	

<b>Unit: Ecosystems and their Interactions</b>	<b>Subject Area: Science</b>	<b>Grade: 3</b>
<b>PA Academic Standards</b>	<b>Performance Indicators</b>	<b>Assessments</b>
3.2B Describe objects in the world using the five senses.	<ul style="list-style-type: none"> <li>Describe what a local ecosystem is made up of using senses.</li> </ul>	
4.3C Understand that the elements of natural systems are interdependent.	<ul style="list-style-type: none"> <li>Identify some of the organisms that live together in an ecosystem.</li> <li>Understand that the components of a system all play a part in a healthy natural system.</li> </ul>	
4.3C Understand that the elements of natural systems are interdependent.	<ul style="list-style-type: none"> <li>Identify the effects of a healthy environment on the ecosystem.</li> </ul>	
4.6A Understand that living things are dependent on nonliving things in the environment for survival.	<ul style="list-style-type: none"> <li>Know that all living interact with their ecosystems.</li> </ul>	
4.6A Understand that living things are dependent on nonliving things in the environment for survival.	<ul style="list-style-type: none"> <li>Describe how animals interact with plants to meet their needs for shelter.</li> <li>Identify a local ecosystem and its living and nonliving components.</li> </ul>	



Unit: Ecosystems and their Interactions	Subject Area: Science	Grade: 3
PA Academic Standards	Performance Indicators	Assessments
4.6A Understand that living things are dependent on nonliving things in the environment for survival.	<ul style="list-style-type: none"> <li>● Identify and give examples of consumers, decomposers, and producers as components of food chains and food webs.</li> <li>● Define a food chain.</li> </ul>	
4.6A Understand that living things are dependent on nonliving things in the environment for survival.	<ul style="list-style-type: none"> <li>● Define a food web.</li> <li>● Describe how change in population affects a food web.</li> <li>● Illustrate a food chain and food web.</li> </ul>	
4.7A Identify differences in living things.	<ul style="list-style-type: none"> <li>● Identify local plants or animals and describe their habitat.</li> </ul>	
4.4C Know that food and fiber originate from plants and animals.	<ul style="list-style-type: none"> <li>● Describe how plants meet their basic needs.</li> </ul>	
4.6A Understand that living things are dependent on nonliving things in the environment for survival.	<ul style="list-style-type: none"> <li>● Describe how plants meet their basic needs.</li> </ul>	

Unit: Ecosystems and their Interactions	Subject Area: Science	Grade: 3
PA Academic Standards	Performance Indicators	Assessments
4.1A Identify various types of water environments.	<ul style="list-style-type: none"> <li>• Compare and contrast the system (e.g., creeks, rivers, streams) and describe the lentic system (e.g., ponds, lakes, swamps) (PSSA).</li> </ul>	
4.1A Identify various types of water environments.	<ul style="list-style-type: none"> <li>• Define watershed.</li> <li>• Explain how a stream functions in a watershed.</li> </ul>	
4.1B Explain the differences between moving and still water.	<ul style="list-style-type: none"> <li>• Describe the difference between lentic and lotic.</li> </ul>	
4.1E Recognize the impact of watershed and wetlands on animals.	<ul style="list-style-type: none"> <li>• Identify plants and animals supported by a wetland (PSSA).</li> </ul>	

## **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)