



## ▶ STATE STANDARDS CORRELATION

- ▶ State: Delaware
- ▶ Grade Levels: Grades 3-5
- ▶ Content Areas: Science, AgriScience, Math & English

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Audubon Adventure activities are intended for use with grades 3-5. Access a complete listing of Delaware science content standards, correlated Essential Questions and Enduring Understandings through <http://www.doe.k12.de.us/infosuites/staff/ci/default.shtml>.

### **Science**

#### **Science Standard 1 Nature and Application of Science and Technology Grade Level Expectations**

##### ***Understandings and Abilities of Scientific Inquiry***

6. Understand that: The use of mathematics, reading, writing, and technology are important in conducting scientific inquiries.

#### **Science Standard 2 Materials and Their Properties**

##### ***Material Technology***

1. Many materials can be recycled and used again (sometimes in different forms).

#### **Science Standard 3 Energy and Its Effects**

##### ***The Production, Consumption and Application of Energy***

1. The production of most of the energy that we use in our daily lives comes from energy stored in natural resources. The quantity of these resources is limited, so it is important to conserve our natural resources by using them wisely.

#### **Science Standard 5 Earth's Dynamic Systems**

##### ***Interactions Throughout Earth's Systems***

2. Water reshapes Earth's land surface by eroding rock and soil in some areas and depositing them in other areas.
3. The flow of water can be affected by human activities, ground cover and the slope of the land affected.

## **Science Standard 6 Life Processes**

### ***Matter and Energy Transformations***

1. Plants need the Sun's energy to grow and survive.
2. Animals need food to provide materials and energy for life which they derive directly or indirectly from plants.

### ***Life Processes and Technology***

#### ***Application***

2. Short term and long term studies are used to determine the effects of environmental changes (natural and man-made) on the health of the organisms within that environment.

## **Science Standard 8 Ecology**

### ***Interactions within the Environment***

2. All living organisms interact with the living and nonliving parts of their surroundings to meet their needs for survival. These interactions lead to a constant exchange of matter.
4. Changes in an organism's environment may be either beneficial or harmful. Organisms may be affected by other organisms, by various physical factors (e.g., rainfall, temperature), by physical forces (e.g., storms, earthquakes), and by daily, seasonal, and annual cycles.

### ***Energy Flow and Material Cycles in the Environment***

1. Plants need energy from the Sun, water and nutrients for growth and survival.
3. Dead plants and animals are broken down by decomposers.

### ***Human Impact***

1. Human activities may cause pollution of air, water and soil.
2. Different technologies are used to access resources to meet human wants and needs. In many cases the environment is affected and resources become limited. Some activities may include burning of fossil fuels, logging, building of highways, shopping centers, and dams, introduction of one species to control another species, spraying of insects, as well as some aspects of farming.

## **AgriScience**

### ***Environmental Science and Natural Resources***

**Performance Element ENR.01:** Recognize the importance of natural systems and the need for the protection of natural resources.

**Performance Indicator ENR.01.02:** Identify types of pollution (e.g. ground, surface water, air, noise, radioactive contamination, etc.) and their effects on the environment.

**Performance element ENR.02:** Identify natural resource systems, processes and relationships

**Performance Indicator ENR.02.01:** Identify and analyze ecosystem relationships

**Performance Indicator ENR.02.03:** Explore conventional and alternative supplies to define energy sources.

**Performance Element ENR.03:** Identify and participate in natural resource management, conservation, and preservation practices

**Performance Indicator ENR.03.03:** Communicate natural resource information to the general public.

**Performance Element ENR.04:** Use the appropriate skills needed to conduct environmental research, assessment, and fieldwork.

**Performance Indicator ENR.04.01:** Apply cartographic skills to natural resource activities.

**Performance Indicator ENR.04.02:** Monitor a natural resource area to obtain environmental data for evaluation and stewardship.

**Performance Indicator ENR.05.02:** : Investigate water sources and processes

**Performance Indicator ENR.05.04:** Discuss properties, classifications, and functions in order to understand watershed principles.

*Agricultural Power, Structural, and Technical Systems*

**Performance Element APSTS.06:** Understand the operation and functions of energy systems, including alternative energy sources.

## **Math**

**Standard 4 – Quantitative Reasoning:** Students will develop Quantitative Reasoning and an understanding of Data Analysis and Probability by solving problems in which there is a need to collect, appropriately represent, and interpret data; to make inferences or predictions and to present convincing arguments; and to model mathematical situations to determine the probability.

**Standard 5 – Problem Solving:** Students will develop their Problem Solving ability by engaging in developmentally appropriate problem-solving opportunities in which there is a need to use various approaches to investigate and understand mathematical concepts; to formulate their own problems; to find solutions to problems from everyday situations; to develop and apply strategies to solve a wide variety of problems; and to integrate mathematical reasoning, communication and connections.

**Standard 6 – Reasoning and Proof:** Students will develop their Reasoning and Proof ability by solving problems in which there is a need to investigate significant mathematical ideas in all content areas; to justify their thinking; to reinforce and extend their logical reasoning abilities; to reflect on and clarify their own thinking; to ask questions to extend their thinking; and to construct their own learning.

**Standard 7 – Communication:** Students will develop their mathematical Communication ability by solving problems in which there is a need to obtain information from the real world through reading, listening and observing; to translate this information into mathematical language and symbols; to process this information mathematically; and to present results in written, oral, and visual formats.

## **English**

### **Standard 1:**

1.4 (K–4) Orally communicate information, opinions, and ideas effectively to different audiences for a variety of purposes

1.5 (K–4) Listen to and comprehend oral communications

1.7 (K–4) Participate effectively in a discussion.

### **Standard 2**

2.1 (K–4) Using appropriate texts, students will be able to select and apply efficient, effective decoding skills and other word recognition strategies to comprehend printed texts

2.2a (5–8) Students will be able to develop an increasingly extensive vocabulary and actively seek the meaning of unknown words as an important facet of comprehending texts and messages by using context clues to determine the meanings of words

2.4e (K–4) Students will be able to demonstrate an overall understanding of printed texts by (e) organizing the important points of the text via summaries, outlines, and/or graphic organizers

2.4k (K–4), 2.6b (K–4) Students will be able to demonstrate an overall understanding of printed texts by (k) relating the content of the text to real-life situations and (b) applying information from printed, electronic, and oral texts to complete authentic tasks.

2.5a (K–4) Students will be able to critically analyze and evaluate information and messages presented through print by (a) connecting and synthesizing information from many sources

2.5b (K–4) Students will be able to critically analyze and evaluate information and messages presented through print by (b) formulating and expressing opinions

### **Standard 3**

**3.1a1 (2–12)** – By the completion of the grade, students will be able to identify, locate, and select sources of information relevant to a defined need by **identifying and locating a variety of sources including printed materials, personal interviews, oral reporting, forums, and technological forms of information.**

**3.1a2 (2–12)** – By the completion of the grade, students will be able to identify, locate, and select sources of information relevant to a defined need by **developing and using procedures to gather information and ideas; developing and following a process for research completion.**

**3.1b (2–12)** – By the completion of the grade, students will be able to identify, locate, and select sources of information relevant to a defined need by **independently extracting information to achieve a specific purpose;** extracting information relevant to a **specific** purpose.

**3.2a (K–12)** – By the completion of the grade, students will be able to organize, manipulate, and express the information and ideas relevant to a defined need by **using technology to synthesize information into a meaningful format to express ideas and experiences, and to create text, drawings, graphs, diagrams, photographs, videos and graphics.**

**3.2b (2–12)** – By the completion of the grade, students will be able to organize, manipulate, and express the information and ideas relevant to a defined need by **independently presenting information which is sufficient in quantity and depth to achieve a specific purpose, avoiding plagiarism.**

#### **Standard 4**

4.4b (9–10) – Using literature appropriate for age, stage, and interests, students will be able to apply knowledge gained from literature as a basis for understanding self and society by (b) using literature as a resource for understanding social and political issues.

Audubon Adventures Issue	Science	AgriScience	Math	English
<b>At Home in a Habitat</b>				
Student Newspaper	1.6, 2.1, Matt: 6.2, Life: 6.2, Inter: 8.2, 8.4, Human: 8.1, 8.2	ENR.01, ENR.01.02, ENR.02, ENR.02.01	5, 6	2.2.1, 2.2.2a, 2.2.4e, 2.2.5a, 4.4.4b
Classroom Resource Manual:				
Field Activity: <i>Wild in the Schoolyard</i> (page 15)	Matt: 6.1, Inter: 8.2, Ener: 8.1	ENR.01, ENR.02, ENR.02.01, ENR.03, ENR.03.03, ENR.04		1.1.7, 2.2.4k, 2.2.5a, 3.3.1a1, 3.3.1b, 3.3.2a
Hands-On Activity: <i>Help the Local Habitat: Build a Bird Feeder</i> (page 16)	2.1	ENR.03	7	2.2.4e
Hands-On Activity: <i>Garbage In, Compost Out!</i> (page 16)	1.6, 2.1, Matt: 6.1, Ener: 8.1, 8.3	ENR.03, ENR.03.03, ENR.04	6	1.1.4, 1.1.5, 1.1.7, 2.2.4e, 2.2.4k, 2.2.5a, 2.2.5b, 3.3.1a1, 3.3.1a2, 3.3.1b, 3.3.2a, 4.4.4b
<i>Find Out More Essay</i> (page 18)	1.6, Matt: 6.2, Life: 6.2, Inter: 8.2, 8.4, Human: 8.1, 8.2	ENR.01, ENR.01.02, ENR.02, ENR.02.01, ENR.03, ENR.04	4, 6	2.2.1, 2.2.2a, 2.2.5a, 4.4.4b
<b>Caretaking our World's Water</b>				
Student Newspaper	1.6, 2.1, 5.3, Life: 6.2, Inter: 8.2, 8.4, Human: 8.1, 8.2	ENR.01, ENR.01.02, ENR.02, ENR.02.01, ENR.03, ENR.05.04	5, 6	2.2.1, 2.2.2a
Classroom Resource Manual:				
Field Activity: <i>School Water Audit</i> (page 24)	1.6	ENR.03, ENR.03.03, ENR.04, ENR.04.01, ENR.05.02	4, 5, 6, 7	1.1.4, 1.1.7, 2.2.4e, 2.2.5b, 3.3.1a2, 3.3.1b, 3.3.2a
Hands-On Activity: <i>Where's Our Water From?</i> (page 26)	5.3	ENR.03.03, ENR.05.02	4	1.1.7, 1.2.4e, 1.2.4k, 1.2.5a, 1.2.5b, 3.3.1a1, 3.3.1b, 3.3.2a
Hands-On Activity: <i>Map Your Watershed</i> (page 26)	Inter: 8.2, 8.4, Human: 8.1, 8.2	ENR.01, ENR.01.02, ENR.02, ENR.02.01, ENR.03, ENR.04.01, ENR.05.02, ENR.05.04		2.2.4e, 2.2.4k, 2.2.5a, 3.3.1a1, 3.3.1b, 3.3.2a, 4.4.4b
<i>Find Out More Essay</i> (page 27)	5.2, 5.3, Inter: 8.2, 8.4, Human: 8.1, 8.2	ENR.01, ENR.01.02, ENR.02, ENR.02.01, ENR.05.04	5	2.2.1, 2.2.2a, 4.4.4b
<b>Power from the Planet</b>				
Student Newspaper	1.6, 2.1, 3.1, Matt: 6.1, 6.2, Life: 6.2, Inter: 8.2, 8.4, Ener: 8.1, 8.3, Human: 8.1, 8.2	ENR.01, ENR.01.02, ENR.02.03, ENR.03, ENR.03.03, ENR.04, APSTS.06	4, 5, 6, 7	2.2.1, 2.2.2a, 2.2.4e, 2.2.4k, 3.3.1a2, 3.3.2b, 4.4.4b
Classroom Resource Manual:				
Hands-On Activity: <i>Energy Challenge</i> (page 33)	1.6, 3.1	ENR.01.02, ENR.02.03, ENR.03, ENR.04, APSTS.06	5, 6, 7	1.1.4, 1.1.5, 1.1.7, 2.2.4k, 2.2.5a, 2.2.5b, 3.3.1a1, 3.3.2a
Hands-On Activity: <i>Trashology</i> (page 33)	1.6, 2.1, 3.1, Human: 8.1	ENR.01.02, ENR.03	4, 5, 6, 7	1.1.7, 2.2.5b, 3.3.1a2, 3.3.1b

Field Activity: <i>Energy Check (page 34)</i>	1.6, 3.1	ENR.03, ENR.04	4, 5, 6, 7	1.1.4, 1.1.5, 1.1.7, 2.2.4e, 2.2.4k, 3.3.1a1, 3.3.1a2, 3.1.1.4, 1.1.5, 1.1.7, 2.2.4e, 2.2.4k, 3.3.1a1, 3.3.1a2, 3.3.1b, 3.3.2b
<i>Find Out More Essay (page 36)</i>	1.6, 2.1, 3.1, Matt: 6.1, 6.2, Inter: 8.2, 8.4, Ener: 8.1, 8.3, Human: 8.1, 8.2	ENR.01.02, ENR.02, ENR.02.01, ENR.02.03, APSTS.06	6	2.2.1, 2.2.2a, 4.4.4b