

*Elizabethtown Area School District*

Curriculum Report

**Fifth Grade Science**

Course Number: Elementary

Length of Course: School year

Grade Level: 5

Total Clock Hours: 84 hours

Length of Period:40 minute

Date Written:October 9, 2006

Periods per Week/Cycle: 4-5

Written By:Science/Health Committee

Science is taught as modular units and is integrated with communication arts, mathematics and social studies. Units in the Fifth grade science curriculum include; meteorology, inquiry and design, geology and landforms.

## **I. Overall Course/Grade Level Standards**

Students will KNOW and be able TO DO the following as a result of taking this course.

- A) Identify Components and Types of Weather
- B) Identify Instruments and Data
- C) Describe Theory versus Opinion
- D) Explain how to conduct controlled experiments
- E) Analyze and report experimental results
- F) Identify the different types of Rocks and Minerals
- G) Explain changes in Earth's Surface
- H) Differentiate among the Pennsylvania Geological Features

## II. Content

### Major Areas of Study

List all units of study below:

Unit	Estimated Time	Materials
1. Meteorology	4-6 wks 50-70 min. periods	Weather maps and stations, student weather journal, two-point coordinate graphs, weather textbook old 4th grade science <u>Discovery Works</u> , Integrate with Theme 1 “Nature’s Fury” district films “Weather and Climate” etc. Leveled Readers from Science ‘ <u>Wild Weather</u> ’ & “ <u>The Four Seasons</u> ” & /Discover simulations
2. Inquiry and Design	Integrated throughout all units	Completed Units from the Experience Science Kits “Human Body, and “Rocks, Erosion and Weathering”/Discover Simulation, Science leveled readers “ <u>Cells &amp; Inside a Cell</u> ”
3. Geology and Landforms	4 wks 50-70 min. periods	Experience Science “Rocks, Erosion and Weathering”/Discover simulation,” Science Leveled Readers: “ <u>Earthquake! &amp; The Day the Earth Shook</u> ” “ <u>To the Top of Mt. Everest</u> ”

### III. Course Assessments

Check types of assessments to be used in the teaching of the course and provide examples of each type.

- |   |  |
|---|--|
| <input checked="" type="checkbox"/> Objective Tests/Quizzes | <input checked="" type="checkbox"/> Response Journals    |
| <input type="checkbox"/> Constructed Responses              | <input type="checkbox"/> Logs                            |
| <input type="checkbox"/> Essays                             | <input checked="" type="checkbox"/> Computer Simulations |
| Reports   | <input type="checkbox"/> Research Papers                 |
| Projects  | <input checked="" type="checkbox"/> Class Participation  |
| <input type="checkbox"/> Portfolios                         | <input checked="" type="checkbox"/> Note Taking          |
| Presentations   | <input checked="" type="checkbox"/> Daily Assignments    |
| Performance Tasks   | <input type="checkbox"/> Writing Samples                 |
| <input type="checkbox"/> [Click here to enter other]        | <input type="checkbox"/> [Click here to enter other]     |

Provide copies of common assessments that will be utilized for all students taking this course. Overall course/grade level standards will be measured by a common course assessment. Unit objectives will be measured on an ongoing basis as needed by the classroom teacher to assess learning and plan for instruction. List common assessments below and recommend date/time frame for administration (at least quarterly).

Name of Common Assessment	When given?
<b>1. Geology: “Rocks, Erosion, and Weathering” Section Assessments</b>	After 4 wk unit
<b>2. Meteorology: To be created later</b> (Experience Science Test Generator???)	
<b>3. Inquiry and Design: Assessed throughout all units Houghton Mifflin kits</b>	

## IV. Expected levels of achievement

### Current grading scale

P 100% - 80%  
W1 79% - 60%  
W2 59% - Below

PA Proficiency Levels
P
W1
W2

The following scoring documents have been developed for this course:

## Name of Unit: Meteorology

**Essential Question: Why is it important to understand the complex systems of weather?**

Unit Objectives/Key Question	Priority	Aligned to Course Standard	Aligned to PA Standard
1. What conditions determine different types of weather?	E	A	3.4.7.C, 3.1.7.A, 3.1.7.E, 3.4.7.B, 3.4.7.D
2. How do ocean currents impact local weather or climate of a region?	E	A	3.4.7.C, 3.1.7.A, 3.1.7.E, 3.4.7.B, 3.4.7.D
3. How do different cloud types help identify different weather patterns?	C	A	3.4.7.C, 3.1.7.A, 3.1.7.E, 3.4.7.B, 3.4.7.D
4. How are weather instruments and data used to forecast weather?	E	B	3.7.7.A, 3.7.7.B, 3.7.7.D, 3.8.4.A, 3.8.4.C, 3.2.7.A, 3.2.7.C, 3.2.7.D, 3.6.7.B
5. How do scientists use symbols to represent and record different weather patterns?	I	B	3.7.7.A, 3.7.7.B, 3.7.7.D, 3.8.4.A, 3.8.4.C, 3.2.7.A, 3.2.7.C, 3.2.7.D, 3.6.7.B
6. Why is weather difficult to accurately predict and forecast?	C	B	3.7.7.A, 3.7.7.B, 3.7.7.D, 3.8.4.A, 3.8.4.C, 3.2.7.A, 3.2.7.C, 3.2.7.D, 3.6.7.B

## Name of Unit: Inquiry and Design

**Essential Question: What is scientific inquiry and how do scientists correctly design experiments to solve problems?**

Unit Objectives/Key Question	Priority	Aligned to Course Standard	Aligned to PA Standard
1. How is scientific theory different from and opinion?	E	C	3.2.7.A, 3.2.7.C
2. How can a question be answered through scientific inquiry?	E	C	3.2.7.A, 3.2.7.C
3. What is a controlled experiment?	E	D	3.1.7.A, 3.1.7.B, 3.1.7.E, 3.2.7. B, 3.2.7.C, 3.2.7.D
4. What is an Independent Variable?	E	D	3.1.7.A, 3.1.7.B, 3.1.7.E, 3.2.7. B, 3.2.7.C, 3.2.7.D
5. What is a Dependent Variable?	E	D	3.1.7.A, 3.1.7.B, 3.1.7.E, 3.2.7. B, 3.2.7.C, 3.2.7.D
6. How is conclusion proven valid or invalid?	I	E	3.1.7.B, 3.1.7.C, 3.1.7.D, 3.2.7.A, 3.2.7.C, 3.2.7.D, 3.7.7.A, 3.7.7.B, 3.8.7.A, 3.8.7.B, 3.8.7.C
7. What tools are available to scientists to help them conduct controlled experiments?	C	E	3.1.7.B, 3.1.7.C, 3.1.7.D, 3.2.7.A, 3.2.7.C, 3.2.7.D, 3.7.7.A, 3.7.7.B, 3.8.7.A, 3.8.7.B, 3.8.7.C

**Name of Unit: Geology and Landforms**

**Essential Question: Why is it important to understand how rocks form and change?**

Unit Objectives/Key Question	Priority	Aligned to Course Standard	Aligned to PA Standard
1. What are the three types of rocks and what are their properties?	I	G	3.5.7.A
2. How does the rock cycle affect rock formations?	E	G	3.5.7.A
3. How does the Earth's surface change?	E	H	3.5.7.A, 3.7.7.A, 3.7.7.B, 3.8.7.A
4. What are the causes and effects of erosion?	E	H	3.5.7.A, 3.7.7.A, 3.7.7.B, 3.8.7.A
5. What are the causes and effects of weathering?	E	H	3.5.7.A, 3.7.7.A, 3.7.7.B, 3.8.7.A
6. How were the major geological features in Pennsylvania formed?	C	K	3.5.7.B