

Elizabethtown Area School District

Curriculum Report

Second Grade Science

Course Number: N/A

Grade Level: Second (2)

Length of Period: 30 minutes

Periods per Week/Cycle: 5 days per week

Credits (if app): N/A

Length of Course: Year

Total Clock Hours: 90 hours

Date Written: October 9, 2006

Written By: Science Committee

Date Updated: October 12, 2009

Course Description:

Science is taught as units of instruction with integration of some concepts with the Communication Arts and Social Studies lessons. Units in the second grade science curriculum include; weather and seasons, pollution/recycling, and animal and plant life cycles.

I. Overall Course/Grade Level Standards

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

- A) Measure weather data with instruments.
- B) Identify daily weather changes and patterns.
- C) Recognize the effects of weather changes on living things.
- D) Recognize seasons.
- E) Identify seasonal clothing and their properties.
- F) Explain the water cycle and its relationship to weather.
- G) Identify different types of clouds.
- H) Tell how different types of clouds affect our weather.
- I) Recognize the environmental changes on living things.
- J) Describe human impact on the environment.
- K) Identify types and sources of pollution.
- L) Explain why recycling is important.
- M) Explain why plants have different structures.
- N) Describe why these structures are important to the life of a plant.
- O) Explain how plants grow and change over time.
- P) Describe how plants survive using natural resources.
- Q) Explain what plants need to survive.
- R) Describe the process of complete and incomplete metamorphosis.
- S) Identify the physical characteristics of animals as they change through their life cycles.

II. Content

Major Areas of Study

List all units of study below:

Unit	Estimated Time	Materials
1. Weather and Seasons	20 days	Kit
2. Pollution/Recycling	10 days	See Curriculum Resources
3. Plant Life Cycles	15 days	Kit
4. Animal Life Cycles	10 days	Kit

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"/> Constructed Responses
<input type="checkbox"/> Essays
<input type="checkbox"/> Reports
<input checked="" type="checkbox"/> Projects
<input type="checkbox"/> Portfolios
<input checked="" type="checkbox"/> Presentations
<input checked="" type="checkbox"/> Performance Tasks
<input type="checkbox"/> Common Assessment (created at a later date) | <input checked="" type="checkbox"/> Response Journals
<input checked="" type="checkbox"/> Logs
<input type="checkbox"/> Computer Simulations
<input type="checkbox"/> Research Papers
<input checked="" type="checkbox"/> Class Participation
<input checked="" type="checkbox"/> Note Taking
<input checked="" type="checkbox"/> Daily Assignments
<input type="checkbox"/> Writing Samples
<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?
1. Common assessments will be created at a later date.	
2.	
3.	

IV. Expected levels of achievement

Current grading scale

80-100=Proficient
70-79=W1
69 and below=W2

PA Proficiency Levels	
Advanced	P
Proficient	
Basic	W1
Below Basic	W2

Name of Unit: Weather and Seasons

Essential Question: How do changes in weather and seasonal patterns affect life on our planet?

Unit Objectives/Key Question	Priority	Aligned to Course Standard	Aligned to PA Standard
1.How are instruments useful in measuring weather?	E	A	3.1.4B, 3.5.4.C 3.7.4.B 3.2.4.A
2. What is weather like in each season?	E	D	3.1.4.C, 3.7.4.B 3.2.4.A
3. How does weather affect your clothing choice?	E	E	3.1.4.C, 3.7.4.B 3.2.4.A
4. What makes our weather change?	E	B, E	3.1.4.C, 3.1.4.E, 3.5.4.C, 3.2.4.A
5. How do different types of clouds affect our weather?	E	G,H	3.1.4.C, 3.1.4.E, 3.5.4.C, 3.2.4.A
6. How does weather affect all living things?	E	C	3.1.4.E, 3.2.4.A
7. What are the positive/negative affects of weather?	E	B, C	3.1.4.E, 3.2.4.A
8. How does the water cycle work?	E	F	3.1.4.B, 3.5.4.D, 4.1.4.B

Name of Unit: Pollution/Recycling

Essential Question: How do living things within an environment/ecosystem affect each other both positively and negatively?

Unit Objectives/Key Question	Priority	Aligned to Course Standard	Aligned to PA Standard
1.What can we learn from environmental changes and how they affect living things?	E	I,J	3.1.4E, 4.3.4.B, 4.8.4.C 3.2.4.c
2.Why is recycling important?	E	L	3.1.4.E, 3.5.4.D, 3.7.4.B, 3.2.4.C, 4.8.4.C, 3.2.4.A
3.What influence do humans have on their environment?	E	J	3.1.4E, 4.3.4.B, 4.8.4.C 3.2.4.C
4. What is the responsibility of humans in taking care of their environment?	E	K,L	3.1.4E, 4.3.4.B, 4.8.4.C 3.2.4.C
5. What are the major causes and effects of pollution?	E	K	3.1.4.E, 3.5.4.D, 3.7.4.B, 3.2.4.C, 4.8.4.C, 3.2.4.A

Name of Unit: Plant and Animal Life Cycles

Essential Question: How do plants use the natural resource around them to survive?

Unit Objectives/Key Question	Priority	Aligned to Course Standard	Aligned to PA Standard
1. Why do plants have different structures?	E	M	3.1.4.B, 3.1.4.C, 3.1.4.E, 3.3.4.A, 3.7.4.B, 4.6.4.B
2. Why are plant structures so important to the life of a plant?	E	N	3.1.4.B, 3.1.4.C, 3.1.4.E, 3.3.4.A, 3.7.4.B, 4.6.4.B
3. How do plants grow and change over time?	E	O	3.1.4.B, 3.1.4.C, 3.1.4.E, 3.3.4.A, 3.7.4.B, 4.6.4.B
4. How do plants use natural resources to survive?	E	P	3.1.4.E, 3.2.4.C, 3.3.4.A, 3.7.4.B, 4.7.4.A, 3.2.4.A, 4.3.4.A, 4.6.4.A
5. What do plants need to survive?	E	Q	3.1.4.E, 3.2.4.C, 3.3.4.A, 3.7.4.B, 4.7.4.A, 3.2.4.A, 4.3.4.A, 4.6.4.A
6. What is a life cycle and how does it vary for different animals?	E	R,S	3.1.4.E, 3.2.4.C, 3.3.4.A, 3.7.4.B, 4.7.4.A, 3.2.4.A, 4.3.4.A, 4.6.4.A
7. What physical characteristics of animals lead to the success of their life cycles?	E	R, S	3.1.4.E, 3.2.4.C, 3.3.4.A, 3.7.4.B, 4.7.4.A, 3.2.4.A, 4.3.4.A, 4.6.4.A