Elizabethtown Area School District

Curriculum Report

Third Grade Science

Course Number: n/a
Grade Level:Third Grade
Length of Period:30 minutes/day
Periods per Week/Cycle: 3.5/week
Credits (if app): n/a

Length of Course: 180 days
Total Clock Hours: 63 hours
Date Written:October 9, 2006
Written By: Science Committee

Course Description:

Science is taught as modular units and through integration with communication arts, mathematics, and social studies. Units in the third grade science curriculum include; rocks and minerals, PA resources and agriculture, forces and motion, solar system, and simple machines.

I. Overall Course/Grade Level Standards

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

A) Explain how forces, work, and energy are related.
B) Identify six simple machines that use force and energy to make-work easier.
C) Explain how simple machines can be combined to form compound machines.
D) Explain why safety precautions need to be considered when using machines.
E) Identify the characteristics of rocks.
F) Describe how rocks are formed.
G) Compare the life cycle of rocks to the life cycle of a living thing.
H) Describe the characteristics of different types of landforms.
I) Explain how weathering and erosion wear away and reform the Earth's surfaces.
J) Identify the resources available in Pennsylvania.
K) Explain how Pennsylvania soil is a valuable resource.
L) Explain how Pennsylvania waterways are a valuable resource.
M) Describe ways we can protect our Pennsylvania resources.
N) Recognize how modern technology has changes Pennsylvania energy production, transportation, communication, and agriculture.
O) Identify what products are grown or raised in PA.
P) Identify how the natural resource available affects what is grown.
Q) Identify biological pests and explain how they compete with humans for resources.
R) Identify the characteristics of the Sun, Moon, and Earth.
S) Explain how Earth, Moon, and other planets move in space.
T) Explain how scientists explore and gather data from space, and how this information is used.
U) Explain why we have day and night, seasons, and Moon phases.
V) Describe what forces affect motion.
W) Describe different types of motion.
X) Recognize that a magnet has two poles- north or south seeking
Y) Identify the forces of attraction and repulsion

II. Content

Major Areas of Study

List all units of study below:

Unit	Estimated Time	Materials
1. Rocks and Minerals	30 days	Experience Science Kit
2. Pennsylvania Resources and Agriculture	5days	
3. Solar System	20 days	Experience Science Kit
4. Simple Machines, Forces, and Motions	30 days	Experience Science Kit

III. Course Assessments

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

- [x] Objective Tests/Quizzes
- [x] Constructed Responses
- [ ] Essays
- [ ] Reports
- [x] Projects
- [ ] Portfolios
- [x] Presentations
- [x] Performance Tasks
- [x] Response Journals
- [x] Logs
- [ ] Computer Simulations
- [ ] Research Papers
- [x] Class Participation
- [ ] Note Taking
- [x] Daily Assignments
- [ ] Writing Samples
- [x] Common Assessment (created at a later date, after familiar with curriculum)
- [ ] [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

90 – 100 % = A
80 – 89 % = B
70 – 79 % = C
60 – 69 % = D
below 60 %= F

PA Proficiency Levels
Advanced Proficient
Basic

Name of Unit: Simple Machines and Forces of Motion

Essential Question: How does simple machines make-work easier?

Unit Objectives/Key Question	Priority	Aligned to Course Standard	Aligned to PA Standard
1. What are force, work and energy?	E	A	3.1.4.E, 3.2.4.A, 3.4.4.C, 3.6.4.C, 3.4.4.B
2. How are force, work and energy related?	E	A	3.1.4.E, 3.2.4.A, 3.4.4.C, 3.6.4.C, 3.4.4.B
3. What are the six simple machines?	E	B	3.1.4.B, 3.1.4.E, 3.4.4.C, 3.6.4.C, 3.7.4.A, 3.7.4B, 3.8.4.A, 3.8.4.B
4. How do these simple machines use force and energy to make-work easier?	E	B	3.1.4.B, 3.1.4.E, 3.4.4.C, 3.6.4.C, 3.7.4.A, 3.7.4B, 3.8.4.A, 3.8.4.B
5. How can simple machines be combined to form compound machines?	I	C	3.4.4.C, 3.6.4.C, 3.7.4.A, 3.7.4.B, 3.8.4.A, 3.8.4.B
6. How are compound machines used in our daily lives?	I	C	3.4.4.C, 3.6.4.C, 3.7.4.A, 3.7.4.B, 3.8.4.A, 3.8.4.B
7. What safety precautions need to be considered when using machines?	C	D	3.4.4.C, 3.7.4A, 3.8.4.A, 3.8.4.B

Name of Unit: Simple Machines and Forces and Motion (Con't)

Essential Question: How do different types of forces affect motion in the world around us?

Unit Objectives/Key Question	Priority	Aligned to Course Standard	Aligned to PA Standard
1. How can we demonstrate different types of motion?	E	W	3.1.4.A, 3.1.4.B, 3.1.4.E, 3.2.4 C, 3.4.4.C, 3.4.4.B, 3.7.4.B, 3.2.4.A, 3.7.4.A
2. How are the two ends of a magnet different?	I	X	3.4.4.C
3. What is the difference between a temporary and a permanent magnet?	C	X,Y	3.7.4.B, 3.7.4.A, 3.2.4.C
4. What are the differences between the forces of attraction and repulsion?	I	V,Y	3.7.4.D

Name of Unit: Rocks and Minerals
Essential Question: How does the Earth change over time?

Unit Objectives/Key Question	Priority	Aligned to Course Standard	Aligned to PA Standard
1. What are the characteristics of rocks?	E	J	3.1.4.C, 3.2.4.B, 4.2.4.B, 4.6.4.B
2. How are rocks formed?	E	K	3.1.4.E, 3.2.4.C
3. What is the "life cycle" of rocks?	C	L	3.1.4.E, 3.2.4.C
4. How does the life cycle of rocks compare to the life cycle of a living thing?	I	L	3.1.4.E, 3.2.4.C
5. What are the characteristics of different types of landforms?	E	M	3.5.4.A, 3.5.4.B, 3.7.4.B
6. How do weathering and erosion wear away and reform the Earth's surfaces?	I	N	3.1.4.E, 3.5.4.A

Name of Unit: Pennsylvania Resources and Agriculture
Essential Question: How does Pennsylvania agriculture affect our resources?

Unit Objectives/Key Question	Priority	Aligned to Course Standard	Aligned to PA Standard
1. What resources are available in Pennsylvania?	E	O	3.1.4.A, 3.5.4.B, 4.2.4.B
2. How is Pennsylvania soil a valuable resource?	I	P	3.1.4.A, 3.5.4.B, 4.2.4.B
3. How are PA waterways a valuable source?	I	Q	3.1.4.A, 3.5.4.B, 4.2.4.B
4. In what ways can we protect our PA resources?	E	R	4.2.4.C, 3.5.4.B, 4.2.4.B, 4.8.4.D
5. How has modern technology changed PA energy production, transportation, communication, and agriculture?	I	S	3.2.4.A, 3.2.4.D, 3.4.2.C, 3.8.4.C
6. What products are grown or raised in Pennsylvania?	I	T	4.4.4.A, 4.4.4.B, 4.4.4.C, 3.5.4.B
7. How do the natural resources available affect what is grown?	C	U	4.4.4.A, 4.4.4.B, 4.4.4.C, 3.5.4.B
8. What are biological pests?	I	V	3.4.4.A, 4.5.4.B, 4.5.4.C
9. How do biological pests compete with humans for our resources?	C	V	3.4.4.A, 4.5.4.B, 4.5.4.C

Name of Unit: Solar System
Essential Question: What are the properties and characteristics of the Sun, Moon, and Earth and how do they affect our daily life?

Unit Objectives/Key Question	Priority	Aligned to Course Standard	Aligned to PA Standard
1. What are the characteristics of the Sun?	E	W	3.1.4.A, 3.4.4.D, 3.1.4.B, 3.1.4.D, 3.4.4.D
2. What are the characteristics of the Moon?	E	W	3.1.4.A, 3.4.4.D, 3.1.4.B, 3.1.4.D,
3. What are the characteristics of the Earth?	E	W	3.1.4.A, 3.4.4.D, 3.1.4.B, 3.1.4.D,
4. How do Earth and other planets move in space?	C	X	3.1.4.B, 3.1.4.C, 3.1.4.E, 3.4.4.D,
5. How does the Moon move in space?	E	X	3.1.4.B, 3.1.4.C, 3.1.4.E, 3.4.4.D,
6. How do scientists explore space?	I	Y	3.2.4.A, 3.7.4.B
7. How do scientists gather data from space?	C	Y	3.2.4.A, 3.7.4.B
8. How is the information gathered from space used?	C	Y	3.2.4.A, 3.7.4.B
9. Why do we have day and night?	E	Z	3.4.4.D, 3.5.4.C
10. Why do we have seasons?	E	Z	3.4.4.D, 3.5.4.C
11. Why do we see moon phases?	E	Z	3.4.4.D, 3.5.4.C