



Pine Grove Area

SCHOOL DISTRICT

SCIENCE

First Grade Science

April 15, 2009

I. PHILOSOPHY

The 1st Grade Science course of the Pine Grove Area School District has been structured to expose children to the natural world around them including learning about scientific method, ecosystems, inquiry and design, PA wildlife, properties of matter, humans and the environment, natural resources, plants, soil, pebbles, sand, and silt, and weather. Developmentally appropriate activities will include opportunities for collaborative learning, hand-on activities, and using manipulatives. The course will allow for the accommodation of many learning styles, motivational levels, and academic abilities.

II. CORE CONCEPTS

1. Scientific Method – Utilize the steps of the scientific method to answer questions and solve problems.
2. Ecosystems – Describe the interdependence of living and nonliving things.
3. Inquiry and Design – Utilize five senses to describe objects in the world.
4. PA Wildlife – Describe needs of animals, how people use animals to live, how animals resemble their parents, and how people care for animals.
5. Properties of Matter – Discover and analysis of solid, liquid, and gas and physical properties of matter.
6. Human and the Environment – Identify ways humans impact the environment.
7. Natural Resources – Identify and discuss the variety of earth’s resources and the types of resources available to use.
8. Plants – Describe the basic parts of a plant, the function of each part, and identify what is necessary for a plant to grow.
9. Soils, Pebbles, Sand, and Silt – Differentiate between types of growing materials.
10. Weather – Understand different types of weather and how it affects the daily life.

III. COURSE OF STUDY

A. Course Name: *Science*

B. Grade Level: First Grade

C. Length of Course: *all year*

1. Frequency: *3 days a week*

2. Duration: *20 minutes*

D. Academic Level: 1st grade

E. Credits: none

F. Prerequisites: none

G. Course Description:

The first grade science course will expose students to the natural world around them. The course will help prepare the students to successfully complete the PSSA Science Test. The students will learn about scientific method, ecosystems, inquiry and design, PA wildlife, properties of matter, humans and the environment, natural resources, plants, soil, pebbles, sand, and silt, and weather. Emphasis will be placed on meeting every student's needs and learning style. Accommodations will be made for students who need additional assistance.

IV. CONTENT: First Grade Science

CORE CONCEPT 1: Scientific Method

MAJOR OBJECTIVE: Utilize the steps of the scientific method to answer questions and solve problems.

CURRICULUM STANDARD:

PA State Standard/Student Expectation	Specific Content	Assessments	Resources/Materials
<p>PA Standard 3.2.4.A Identify and use the nature of scientific and technological knowledge.</p> <ul style="list-style-type: none"> • Distinguish between a scientific fact and a belief • Provide clear explanations that account for observations and results. • Relate how new information can change existing perceptions. 	<p>Teacher will guide students to:</p> <p>Understand the difference between a scientific fact and a belief through discussion of fact and opinion.</p> <p>Complete and discuss observations of hands-on activities by using the five senses.</p> <p>Complete and discuss experiments use the scientific method to provide clear explanations of what happened to during the experiment.</p> <p>Organize and communicate observations through drawing and writing.</p>	<p>Teacher evaluation of:</p> <p>Teacher observations</p> <p>Rubrics</p> <p>Worksheets</p> <p>Classroom Discussion</p>	<p>Resource Books</p> <p>Computer programs/web sites</p> <p>Journal or notebook</p> <p>Supplemental materials</p> <p>Trade Books</p>

CONTENT: First Grade Science

CORE CONCEPT 1: Scientific Method

MAJOR OBJECTIVE: Utilize the steps of the scientific method to answer questions and solve problems.

CURRICULUM STANDARD:

PA State Standard/Student Expectation	Specific Content	Assessments	Resources/Materials
<p>PA Standard 3.2.4.C Recognize and use the elements of scientific inquiry to solve problems.</p> <ul style="list-style-type: none">• Generate questions about objects, organisms and/or events that can be answered through scientific investigations.	<p>Teacher will guide students to:</p> <p>Complete experiments using a variety of materials and identifying problems that may occur by combining the materials together.</p> <p>Explore and investigate scientific concepts using the scientific method and solving problems while using the scientific method.</p>	<p>Teacher evaluation of:</p> <p>Teacher observations</p> <p>Rubrics</p> <p>Worksheets</p> <p>Classroom Discussion</p>	<p>Resource Books</p> <p>Computer programs/web sites</p> <p>Journal or notebook</p> <p>Supplemental materials</p> <p>Trade Books</p>

CONTENT: First Grade Science

CORE CONCEPT 2: Ecosystems

MAJOR OBJECTIVE: Describe the interdependence of living and nonliving things.

CURRICULUM STANDARD:

State Standard/Student Expectation	Specific Content	Assessments	Resources/Materials
<p>PA Standard 4.6.4.A Understand that living things are dependent on nonliving things in the environment for survival.</p> <ul style="list-style-type: none">• Identify and categorize living and nonliving things.• Describe the basic needs of an organism.• Identify basic needs of a plant and an animal and explain how their needs are met.• Identify plants and animals with their habitat and food sources.• Describe how animals interact with plants to meet their needs for shelter.• Understand the components of a food chain.• Identify a local ecosystem and its living and nonliving components.• Identify a simple ecosystem and its living and nonliving components.	<p>Teacher will guide students to:</p> <p>Identify how living and nonliving things co-exist to help animals survive.</p> <p>Describe basic needs of organism by discussing and watching the life cycle of animals and insects.</p> <p>Visualize and describe how plants and animals interact in their habitats.</p> <p>Discuss what animals need to survive by watching an animal go through its life cycle.</p> <p>Chart and track the food chain of an animal.</p> <p>Comprehend and discuss the local ecosystem of the Monarch butterfly.</p>	<p>Teacher evaluation of:</p> <p>Teacher observations</p> <p>Rubrics</p> <p>Worksheets</p> <p>Classroom Discussion.</p>	<p>Resource Books</p> <p>Computer programs/web sites</p> <p>Journal or notebook</p> <p>Supplemental materials</p> <p>Trade Books</p>

CONTENT: First Grade Science

CORE CONCEPT 3: Inquiry and Design

MAJOR OBJECTIVE: Utilize five senses to describe objects in the world.

CURRICULUM STANDARD:

State Standard/Student Expectation	Specific Content	Assessments	Resources/Materials
<p>PA Standard 3.2.4.B Describe objects in the world using the five senses.</p> <ul style="list-style-type: none">• Recognize observational descriptors for each of the five senses (e.g., see-blue, feel-rough).• Use observations to develop a descriptive vocabulary.	<p>Teacher will guide students to:</p> <p>Investigate the five senses by exploring the different functions and uses of these senses</p> <p>Identify the five senses and use these senses to explore the objects around them.</p> <p>Explore which parts of their body they use to use the five senses.</p> <p>Discuss the importance of the five senses.</p> <p>Create a book about the five senses.</p> <p>Write a short report about the five senses and how they affect the world around them.</p>	<p>Teacher evaluation of:</p> <p>Teacher observation</p> <p>Rubrics</p> <p>Worksheets</p> <p>Classroom Discussions</p> <p>Journal and Writing Activities</p>	<p>Resource Books</p> <p>Computer programs/web sites</p> <p>Journal or notebook</p> <p>Supplemental materials</p> <p>Trade Books</p>

CONTENT: First Grade Science

CORE CONCEPT 4: PA Wildlife

MAJOR OBJECTIVE: Describe needs of animals, how people use animals to live, how animals resemble their parents, and how people care for animals.

CURRICULUM STANDARD:

State Standard/Student Expectation	Specific Content	Assessments	Resources/Materials
<p>PA Standard 4.3.4.A Know that plants, animals, and humans are dependent on air and water.</p> <ul style="list-style-type: none"> Know that all living things need air and water to survive. 	<p>Teacher will guide students to:</p> <p>Recognize and identify what animals and plants need to survive.</p>	<p>Teacher evaluation of:</p> <p>Teacher observation</p> <p>Rubrics</p> <p>Worksheets</p> <p>Classroom Discussions</p> <p>Journal and Writing Activities</p>	<p>Resource Books</p> <p>Computer programs/web sites</p> <p>Journal or notebook</p> <p>Supplemental materials</p> <p>Trade Books</p>
<p>PA Standard 4.6.4.A Understand that living things are dependent on nonliving things in the environment for survival.</p> <ul style="list-style-type: none"> Describe basic needs of an organism. Identify plants and animals with their habitat and food sources. 	<p>Teacher will guide students to:</p> <p>Read trade books about animals and their habitats</p> <p>Write a factual paragraph about an animal</p> <p>Research animals on the internet</p> <p>Review workbook “Wildlife in PA” as a guide to animal information.</p>	<p>Teacher evaluation of:</p> <p>Teacher observation</p> <p>Rubrics</p> <p>Worksheets</p> <p>Classroom Discussions</p> <p>Journal and Writing Activities</p>	<p>Resource Books</p> <p>Computer programs/web sites</p> <p>Journal or notebook</p> <p>Supplemental materials</p> <p>Trade Books</p>

CONTENT: First Grade Science

CORE CONCEPT 4: PA Wildlife

MAJOR OBJECTIVE: Describe needs of animals, how people use animals to live, how animals resemble their parents, and how people care for animals.

CURRICULUM STANDARD:

State Standard/Student Expectation	Specific Content	Assessments	Resources/Materials
<p>PA Standard 4.7.4.A Identify differences in living things.</p> <ul style="list-style-type: none">• Explain why plants and animals are different colors, shapes and sizes and how these differences relate to their survival.• Identify characteristics that living things inherit from their parents.• Explain why each of the four elements in a habitat is essential for survival.	<p>Teacher will guide students to:</p> <p>Read and discuss trade books on animals.</p> <p>Create booklets on animals and how they survive in their environments.</p> <p>Investigate animals and explain how the four elements of habitat help the animals to survive.</p> <p>Compare and contrast animals to explain the differences in their shapes, sizes, and colors.</p> <p>Write information about the four elements of habitat and how it affects animal survival.</p>	<p>Teacher evaluation of:</p> <p>Teacher observation</p> <p>Rubrics</p> <p>Worksheets</p> <p>Classroom Discussions</p> <p>Journal and Writing Activities</p>	<p>Resource Books</p> <p>Computer programs/web sites</p> <p>Journal or notebook</p> <p>Supplemental materials</p> <p>Trade Books</p>

CONTENT: First Grade Science

CORE CONCEPT 4: PA Wildlife

MAJOR OBJECTIVE: Describe needs of animals, how people use animals to live, how animals resemble their parents, and how people care for animals.

CURRICULUM STANDARD:

State Standard/Student Expectation	Specific Content	Assessments	Resources/Materials
<p>PA Standard 4.7.4.B Know that adaptations are important for survival.</p> <ul style="list-style-type: none">• Explain how specific adaptations can help a living organism to survive.• Explain what happens to a living thing when its food, shelter or space is changed.	<p>Teacher will guide students to:</p> <p>Discuss how environmental and human changes affect an animal.</p> <p>Explain and discuss how animals make adaptations to survive in their environment.</p> <p>Define what adaptations are and how they affect animals.</p>	<p>Teacher evaluation of:</p> <p>Teacher observation</p> <p>Rubrics</p> <p>Worksheets</p> <p>Classroom Discussions</p> <p>Journal and Writing Activities</p>	<p>Resource Books</p> <p>Computer programs/web sites</p> <p>Journal or notebook</p> <p>Supplemental materials</p> <p>Trade Books</p>

CONTENT: First Grade Science

CORE CONCEPT 5: Properties of Matter

MAJOR OBJECTIVE: Discover and analysis of solid, liquid, gas and physical properties of matter.

CURRICULUM STANDARD:

State Standard/Student Expectation	Specific Content	Assessments	Resources/Materials
<p>PA Standard 3.4.4.A Recognize basic concepts about the structure and properties of matter.</p> <ul style="list-style-type: none">Describe properties of matter (e.g. hardness, reactions to simple chemical tests).Know that combining two or more substances can make new materials with different properties.Know different material characteristics (e.g., texture, state of matter, solubility).	<p>Teacher will guide students to:</p> <p>Describe the differences between the different stages of matter.</p> <p>Describe the properties of matter by completing experiments on materials that are solid, liquid and gases.</p> <p>Compare and contrast the differences between solid, liquid and gases.</p> <p>Investigate what happen when combining different materials together to see whether solid, liquids, or gases form when combining those materials.</p>	<p>Teacher evaluation of:</p> <p>Teacher observation</p> <p>Rubrics</p> <p>Worksheets</p> <p>Classroom Discussions</p> <p>Journal and Writing Activities</p>	<p>Resource Books</p> <p>Computer programs/web sites</p> <p>Journal or notebook</p> <p>Supplemental materials</p> <p>Trade Books</p>

CONTENT: First Grade Science

CORE CONCEPT 6: Humans and the Environment

MAJOR OBJECTIVE: Identify ways humans impact the environment.

CURRICULUM STANDARD:

State Standard/Student Expectation	Specific Content	Assessments	Resources/Materials
<p>PA Standard 4.8.4.A Identify the biological requirements of humans.</p> <ul style="list-style-type: none">• Explain how a dynamically changing environment provides for sustainability of living systems.• Identify several ways that people use natural resources.	<p>Teacher will guide students to:</p> <p>Discuss how the environment is changing and what humans are doing to cause the changes in the environment.</p> <p>Investigate the ways that people use natural resources and how using these natural resources affect the environment.</p> <p>Hypothesis how using the natural resources will impact the environment</p>	<p>Teacher evaluation of:</p> <p>Teacher observation</p> <p>Rubrics</p> <p>Worksheets</p> <p>Classroom Discussions</p> <p>Journal and Writing Activities</p>	<p>Resource Books</p> <p>Computer programs/web sites</p> <p>Journal or notebook</p> <p>Supplemental materials</p> <p>Trade Books</p>
<p>PA Standard 4.8.4.B Know that environmental conditions influence where and how people live.</p> <ul style="list-style-type: none">• Identify how regional natural resources influence what people use.• Explain the influence of climate on how and where people live.	<p>Teacher will guide students to:</p> <p>Investigate the natural resources of our region and how these resources influence what resources people use.</p> <p>Compare and Contrast how humans interact with the environment and how that affects the climate we live in.</p>	<p>Teacher evaluation of:</p> <p>Teacher observation</p> <p>Rubrics</p> <p>Worksheets</p> <p>Classroom Discussions</p> <p>Journal and Writing Activities</p>	<p>Resource Books</p> <p>Computer programs/web sites</p> <p>Journal or notebook</p> <p>Supplemental materials</p> <p>Trade Books</p>

CONTENT: First Grade Science

CORE CONCEPT 6: Humans and the Environment

MAJOR OBJECTIVE: Identify ways humans impact the environment.

CURRICULUM STANDARD:

State Standard/Student Expectation	Specific Content	Assessments	Resources/Materials
<p>PA Standard 4.3.4.B Identify how human actions affect environmental health.</p> <ul style="list-style-type: none">• Identify pollutants.• Identify sources of pollution.• Identify litter and its effect on the environment.• Describe how people can reduce pollution.	<p>Teacher will guide students to:</p> <p>Investigate how human actions affect environmental health.</p> <p>Discuss and describe pollutants and sources of pollution</p> <p>Describe how littering can affect the health of the environment.</p> <p>Evaluate the steps people can do to reduce pollution</p>	<p>Teacher evaluation of:</p> <p>Teacher observation</p> <p>Rubrics</p> <p>Worksheets</p> <p>Classroom Discussions</p> <p>Journal and Writing Activities</p>	<p>Resource Books</p> <p>Computer programs/web sites</p> <p>Journal or notebook</p> <p>Supplemental materials</p> <p>Trade Books</p>

CONTENT: First Grade Science

CORE CONCEPT 7: Natural Resources

MAJOR OBJECTIVE: Identify and discuss the variety of earth’s resources and the types of resources available to use.

CURRICULUM STANDARD:

State Standard/Student Expectation	Specific Content	Assessments	Resources/Materials
<p>PA Standard 4.8.4.D Know the importance of natural resources in daily life.</p> <ul style="list-style-type: none"> • Identify items used in daily life that come from natural resources. • Identify ways to conserve our natural resources. • Identify major land uses in the community. 	<p>Teacher will guide students to:</p> <p>Discuss and identify the importance of natural resources.</p> <p>Investigate ways to conserve our natural resources.</p> <p>Research and identify the natural resources that the students use in their daily lives.</p> <p>Discuss and illustrate major land uses in the community.</p>	<p>Teacher evaluation of:</p> <p>Teacher observation</p> <p>Rubrics</p> <p>Worksheets</p> <p>Classroom Discussions</p> <p>Journal and Writing Activities</p>	<p>Resource Books</p> <p>Computer programs/web sites</p> <p>Journal or notebook</p> <p>Supplemental materials</p> <p>Trade Books</p>
<p>PA Standard 4.2.4.A Identify the needs of people</p> <ul style="list-style-type: none"> • Identify plants, animals, water, air, minerals and fossil fuels as natural resources. • Identify how the environment provides for the needs of people. 	<p>Teacher will guide students to:</p> <p>Investigate how plants, animals, water, air, minerals and fossil fuels can be used as natural resources.</p> <p>Predict and deduce how the environment provides for the needs of people.</p>	<p>Teacher evaluation of:</p> <p>Teacher observation</p> <p>Rubrics</p> <p>Worksheets</p> <p>Classroom Discussions</p> <p>Journal and Writing Activities</p>	<p>Resource Books</p> <p>Computer programs/web sites</p> <p>Journal or notebook</p> <p>Supplemental materials</p> <p>Trade Books</p>

CONTENT: First Grade Science

CORE CONCEPT 7: Natural Resources

MAJOR OBJECTIVE: Identify and discuss the variety of earth's resources and the types of resources available to use.

CURRICULUM STANDARD:

State Standard/Student Expectation	Specific Content	Assessments	Resources/Materials
<p>PA Standard 4.2.4.B Identify products derived from natural resources.</p> <ul style="list-style-type: none">• Identify products made from trees• Identify by-products of plants and animals.• Identify the sources of manmade products (e.g., plastics, metal, aluminum, fabrics, paper, cardboard).	<p>Teacher will guide students to:</p> <p>Show how products are derived from natural resources.</p> <p>Locate items in the classroom that are made from natural resources.</p> <p>Deduce whether an object is made from natural resources or is it a man made product.</p>	<p>Teacher evaluation of:</p> <p>Teacher observation</p> <p>Rubrics</p> <p>Worksheets</p> <p>Classroom Discussions</p> <p>Journal and Writing Activities</p>	<p>Resource Books</p> <p>Computer programs/web sites</p> <p>Journal or notebook</p> <p>Supplemental materials</p> <p>Trade Books</p>

CONTENT: First Grade Science

CORE CONCEPT 7: Natural Resources

MAJOR OBJECTIVE: Identify and discuss the variety of earth's resources and the types of resources available to use.

CURRICULUM STANDARD:

State Standard/Student Expectation	Specific Content	Assessments	Resources/Materials
<p>PA Standard 4.2.4.D Identify by-products and their use of natural resources.</p> <ul style="list-style-type: none">• Understand the waste stream.• Identify those items that can be recycled and those that can not.• Identify use of reusable products.• Identify the use of compost, landfills and incinerators.	<p>Teacher will guide students to:</p> <p>Record items that can be recycled.</p> <p>Classify items into the correct category that they can be recycled.</p> <p>Discuss and record the waste stream/system and how it affects our environment.</p> <p>Compare and contrast the recycling and through things away in the landfill.</p> <p>Discuss and describe the uses of compost, landfills, and incinerators.</p>	<p>Teacher evaluation of:</p> <p>Teacher observation</p> <p>Rubrics</p> <p>Worksheets</p> <p>Classroom Discussions</p> <p>Journal and Writing Activities</p>	<p>Resource Books</p> <p>Computer programs/web sites</p> <p>Journal or notebook</p> <p>Supplemental materials</p> <p>Trade Books</p>

CONTENT: First Grade Science

CORE CONCEPT 8: Plants

MAJOR OBJECTIVE: Describe the basic parts of a plant, the function of each part, and identify what is necessary for a plant to grow.

CURRICULUM STANDARD:

State Standard/Student Expectation	Specific Content	Assessments	Resources/Materials
<p>PA Standard 3.1.4.C Illustrate patterns that regularly occur and reoccur in nature.</p> <ul style="list-style-type: none"> Identify observable patterns (e.g. growth patterns in plants) 	<p>Teacher will guide students to:</p> <p>Explain why grass can't grow on the moon but can grow on earth.</p> <p>Grow a flowering plant or bean plant and record observations of its growth.</p>	<p>Teacher evaluation of:</p> <p>Teacher observation</p> <p>Listening to class discussion</p> <p>Review of student work</p> <p>Satisfactory score on quiz</p> <p>Journal and writing activities</p>	<p>Resource Books</p> <p>Computer programs/web sites</p> <p>Journal or notebook</p> <p>Supplemental materials</p> <p>Trade Books</p>
<p>PA Standard 3.3.4.A Know the similarities and differences of living things.</p> <ul style="list-style-type: none"> Identify life processes of living things (e.g. growth, digestion, react to environment) Describe the basic needs of plants and animals. 	<p>Teacher will guide students to:</p> <p>Identify the basic parts of a plant, and tell what their function is</p> <p>Tell what is necessary for a plant to grow (water, soil, sunlight)</p> <p>Tell how the seasons affect plant growth.</p>	<p>Teacher evaluation of:</p> <p>Teacher observation</p> <p>Listening to class discussion</p> <p>Review of student work</p> <p>Satisfactory score on quiz</p> <p>Journal and writing activities</p>	<p>Resource Books</p> <p>Computer programs/web sites</p> <p>Journal or notebook</p> <p>Supplemental materials</p> <p>Trade Books</p>

CONTENT: First Grade Science

CORE CONCEPT 8: Plants

MAJOR OBJECTIVE: Describe the basic parts of a plant, the function of each part, and identify what is necessary for a plant to grow.

CURRICULUM STANDARD:

State Standard/Student Expectation	Specific Content	Assessments	Resources/Materials
<p>PA Standard 3.3.4.B Know that living things are made up of parts that have specific functions.</p> <ul style="list-style-type: none">Determine how different parts of a living thing work together to make the organism function.	<p>Teacher will guide students to:</p> <p>Describe purpose of plants (clean the air we breathe, provide food and shelter for people and animals, keep soil in place)</p>	<p>Teacher evaluation of:</p> <p>Teacher observation</p> <p>Listening to class discussion</p> <p>Review of student work</p> <p>Satisfactory score on quiz</p> <p>Journal and writing activities</p>	<p>Resource Books</p> <p>Computer programs/web sites</p> <p>Journal or notebook</p> <p>Supplemental materials</p> <p>Trade Books</p>
<p>PA Standard 4.4.4.B Identify the role of the sciences in Pennsylvania agriculture.</p> <ul style="list-style-type: none">Identify common plants found on Pennsylvania farms.	<p>Teacher will guide students to:</p> <p>Discuss and identify plants that students commonly see in the area around them.</p> <p>Create a writing piece about a plant they see growing in this area of Pennsylvania.</p>	<p>Teacher evaluation of:</p> <p>Teacher observation</p> <p>Listening to class discussion</p> <p>Review of student work</p> <p>Satisfactory score on quiz</p> <p>Journal and writing activities</p>	<p>Resource Books</p> <p>Computer programs/web sites</p> <p>Journal or notebook</p> <p>Supplemental materials</p> <p>Trade Books</p>

CONTENT: First Grade Science

CORE CONCEPT 9: Soil, Pebbles, Sand, and Silt

MAJOR OBJECTIVE: Differentiate between types of growing materials.

CURRICULUM STANDARD:

State Standard/Student Expectation	Specific Content	Assessments	Resources/Materials
<p>PA Standard 3.5.4.B Know types and uses of earth materials.</p> <ul style="list-style-type: none">Identify and sort earth materials according to a classification key (e.g. soil/rock type).	<p>Teacher will guide students to:</p> <p>Explain how water can change rocks and soil.</p> <p>Categorize rocks into soil, pebbles, sand, and silt.</p> <p>Classify earth materials into categories by size and shape.</p> <p>Compare and contrast the ingredients of different soils.</p>	<p>Teacher evaluation of:</p> <p>Teacher observation</p> <p>Listening to class discussion</p> <p>Review of student work</p> <p>Satisfactory score on quiz</p> <p>Journal and writing activities</p>	<p>Resource Books</p> <p>Computer programs/web sites</p> <p>Journal or notebook</p> <p>Supplemental materials</p> <p>Trade Books</p>
<p>PA Standard 4.8.4.D Know the importance of natural resources in daily life.</p> <ul style="list-style-type: none">Identify items used in daily life that come from natural resources.	<p>Teacher will guides students to:</p> <p>Explain uses of land in the community (farming and gardening)</p> <p>Explain plants we grow and use in our daily lives to help use survive.</p> <p>Explore places on earth materials are found and ways earth materials are used.</p>	<p>Teacher evaluation of:</p> <p>Teacher observation</p> <p>Listening to class discussion</p> <p>Review of student work</p> <p>Satisfactory score on quiz</p> <p>Journal and writing activities</p>	<p>Resource Books</p> <p>Computer programs/web sites</p> <p>Journal or notebook</p> <p>Supplemental materials</p> <p>Trade Books</p>

CONTENT: First Grade Science

CORE CONCEPT 10: Weather

MAJOR OBJECTIVE: Understand different types of weather and how it affects the daily life.

CURRICULUM STANDARD:

State Standard/Student Expectation	Specific Content	Assessments	Resources/Materials
<p>PA Standard 3.5.4.C Know basic weather elements</p> <ul style="list-style-type: none">• Identify cloud types• Identify weather patterns from data charts (including temperature, wind directions and speed, precipitation) and graphs of the data.• Explain how the different seasons affect plants, animals, food availability and daily human life.	<p>Teacher will guide students to:</p> <p>Read stories and discuss the different types of weather.</p> <p>Identify the weather and explore the ways that affects the students daily lives (e.g. what they wear to school, whether they go outside to recess)</p> <p>Identify the season and discuss how the seasons affect the student's daily lives and the environment around them.</p> <p>Write about the weather and discuss why the weather is important</p> <p>Read trade books about clouds and discuss how clouds affect their environment.</p>	<p>Teacher evaluation of:</p> <p>Teacher observation</p> <p>Listening to class discussion</p> <p>Review of student work</p> <p>Satisfactory score on quiz</p> <p>Journal and writing activities</p>	<p>Resource Books</p> <p>Computer programs/web sites</p> <p>Journal or notebook</p> <p>Supplemental materials</p> <p>Trade Books</p>

V. EXPECTED LEVELS OF ACHIEVEMENT

A. Students are expected to reach the first grade level of achievement in science. These skills include all of those noted in the specific content area of this curriculum.

B. Grading system for all first grade science classes is as follows:

Grading Scale	
S	Satisfactory
N	Needs Improvement
O	Outstanding
U	Unsatisfactory

C. Each student's grade will be determined at the conclusion of each marking period.