



Kindergarten Science Curriculum
Last Updated November, 2019 by Cyndi Parker

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Unit #/Title	1/Trees
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Stage 1 - Identify Desired Results

Standards

- 3.1.K.A.1** Identify the similarities and differences of living and nonliving things.
- 3.1.K.A.3** Observe, compare, and describe stages of life cycles for plants and/or animals.
- 3.1.K.C2** Describe changes animals and plants undergo throughout the seasons.
- 4.1.K.D** Observe and describe what happens to living things when needs are met.
- 4.3.K.A** Identify some renewable resources used in the classroom.
- 4.3.K.B** Recognize the importance of conserving natural resources.
- 4.4.K.A** Identify common plants and animals found in Pennsylvania agricultural systems.
- 4.4.K.B** Identify common plants and animals used by people.
- 4.4.K.D** Identify tools and machinery commonly used in agriculture.

Content	Skills
<ul style="list-style-type: none"> • All organisms have basic needs • Trees are growing living organisms • Trees have identifiable structures • Trees are a resource to people and animals • Trees are identifiable by their shapes • Trees have life cycles • Leaves have properties that can help identify different types • Trees have structures that serve as functions • Trees change throughout the seasons 	<ul style="list-style-type: none"> • Develop a growing curiosity and interest in the living things that make up the world • Observe and describe the properties of trees and leaves in the schoolyard • Compare and contrast trees and leaves observed on field trips • Observe throughout the school year for changes that come with the different seasons • Compare attributes of leaves • Use pictorial experiences to heighten awareness of diversity and variety of trees and leaves • Acquire vocabulary associated with the properties and structures of trees and leaves • Use drawings and oral language to describe observations

Unit #/Title	2/Air, Weather, and Seasons
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Stage 1 - Identify Desired Results

Standards

3.1.K.C2 Describe changes animals and plants undergo throughout the seasons.
3.1.K.C3 Constancy and Change: Describe changes that occur as a result of climate.
3.2.K.A1 Identify and classify objects by observable properties of matter. Compare different kinds of materials and discuss their uses.
3.2.K.A3 Describe the way matter can change.
3.2.K.A5 CONSTANCY AND CHANGE Recognize that everything is made of matter.
3.2.K.B3 Describe how temperature can affect the body.
3.3.K.A5 Record daily weather conditions using simple charts and graphs Identify seasonal changes in the environment. Distinguish between types of precipitation.
4.1.K.E Identify how the changes in seasons affect their local environment.

Content	Skills
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<ul style="list-style-type: none"> • Air is matter and takes up space • Air interacts with objects • Air resistance affects how things move • Air is around us • Air can be compressed • Air is a gas • Weather is the condition of the atmosphere and changes over time • Temperature, precipitation, and cloud types are components of weather • Meteorologists are scientists who study weather • Plants and animals change throughout the seasons • Changes of seasons affect local environment • There are different kinds of clouds • Rain is water that comes from clouds • Wind is moving air • Wind speed and direction are components of weather • Wind scales are tools that describe the speed wind • Weather conditions change over time • The sun heats the earth during the day • Each season has a typical weather pattern that can be observed, compared, and predicted • The bright appearance of the moon changes shape in a pattern • The sun and moon appear to move across the sky 	<ul style="list-style-type: none"> • Observe the properties of air as it interacts with other materials • Observe the properties of air when it is put under pressure • Observe and record daily weather • Observe and compare cloud types • Measure temperature and rainfall • Observe and compare the action of moving air • Observe and describe the direction of wind using wind vanes • Observe and describe the speed of wind using an anemometer • Organize and graph class weather data • Record weather data throughout the year and compare seasonal weather • Identify how plants and animals change throughout the seasons • Observe how seasons affect local environment • Observe the changing location of the sun during the day • Observe and record nightly weather and changing appearance of the moon
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Unit #/Title	3/Wood and Paper
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Stage 1 - Identify Desired Results

Standards

3.2.K.A1 Identify and classify objects by observable properties of matter. Compare different kinds of materials and discuss their uses.

3.2.K.A3 Describe the way matter can change.

4.3.K.A Identify some renewable resources used in the classroom.

4.3.K.B Recognize the importance of conserving natural resources.

4.4.K.B Identify common plants and animals used by people.

4.5.K.A Identify what people use in their everyday life.

Content	Skills
<ul style="list-style-type: none"> • Wood is a resource that comes from different kinds of trees • Wood and paper have many observable properties • New paper can be made from old paper • Knowledge of the properties of wooden paper can be used to make artistic constructions 	<ul style="list-style-type: none"> • Observe a variety of wood and paper • Communicate observations about a variety of wood and paper • Compare properties of different kinds of wood in paper found in the classroom • Sort wood and paper by their properties • Observe how wood and paper can be changed

Unit #/Title	4/Caring for the Environment
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Stage 1 - Identify Desired Results

Standards

3.3.K.A4 Identify sources of water for human consumption and use.
4.3.K.A Identify some renewable resources used in the classroom.
4.3.K.B Recognize the importance of conserving natural resources.
4.3.K.C See Science as Inquiry in the Introduction for grade level indicators (As indicated on page 4).
4.5.K.C Identify different types of pollution (land, water or air) and their sources.
4.5.K.D Identify waste and practice ways to reduce, reuse, and recycle.

Content	Skills
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| <ul style="list-style-type: none"> • Items can be reduced recycled and reused • Pollution exists in water land and air • People create pollution • Natural resources need to be conserved | <ul style="list-style-type: none"> • Sort recyclable items • Identify causes of pollution in the air and water • List ways to conserve natural resources |
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Unit #/Title	5/Animals
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Stage 1 - Identify Desired Results

Standards

- 3.1.K.A.3** Observe, compare, and describe stages of life cycles for plants and/or animals.
- 3.1.K.A.5** Observe and describe structures and behaviors of a variety of common animals.
- 3.1.K.B1** Observe and describe how young animals resemble their parents and other animals of the same kind.
- 3.1.K.C2** Describe changes animals and plants undergo throughout the seasons.
- 4.4.K.B** Identify common plants and animals used by people.
- 4.4.K.C** Observe and describe stages of life cycles for plants and animals.
- 4.5.K.B** Identify common pests in our homes, gardens and neighborhoods.

(under construction)