



Kindergarten Science Yearlong Curriculum Plan

Last modified: June 2017 (Pilot 2017-18 school year)

SUMMARY

This YLP starts with two weather standards spanning the entire school year. In Block 1, we begin the discussions with plant and animal cycles and their needs for survival. Also, discussing energy from the sun and how it warms the Earth's surface. Moving into Block 2, we will continue the weather standards, animal and plants cycles and needs, adding how plants and animals change the environment. Block 3 continues the weather standards and revisits energy from the sun and how it warms the Earth's surface. We introduce two standards, matter and its interactions, and forces and interactions. Block 4 continues the weather standards, revisits plant and animal life cycles and needs and how they change the environment, and continues discussions about matter. We introduce reduce, reuse, and recycling (Earth Day). Block 5 continues the weather standards, revisits plant and animal life cycles and needs, we revisit recycling and sunlight warming the Earth's surface, and have students design and construct a model that will reduce the warming effect of the sunlight.

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How to Use This Yearlong Plan

This yearlong plan (YLP) document, created by teachers and other curriculum leaders throughout the five districts, provides many of the pieces you need to begin planning your school year.

This document includes:

- A **yearlong map** divided into four (4) quarters that shows when standards should be taught
- A **standards overview** from the state outlining the main categories of the content-area standards as well as general practice standards
- **Block-by-block maps** with additional details of the standards and suggested resources.
- A **guiding document** to help teachers see the 5DP vision for science integration across domains.



FREQUENTLY ASKED QUESTIONS

1. *Does this mean I no longer have freedom to decide how to plan my year?*

The 5DP's goal is to generally align curriculum for the sake of our highly mobile student population. The goal is to create a cohesive learning environment and provide teachers with more opportunities to collaborate, not dictate lesson plans.

2. *Are there pacing guides? How long should I spend on each standard?*

Some districts have created pacing guides with suggested time frames. Many of these documents are available on the 5DP Server (www.5districts.com/5dp) under the district-specific documents. If your pacing guides are not posted, please discuss with your curriculum director.

3. *Will this plan align with my textbook and other content resources?*

It is unlikely that these will align perfectly with any textbook or resource. This YLP was created with no specific textbook in mind and with the understanding that it needed to work for all five districts, each of which has unique resources. Newer textbooks are better aligned to Common Core standards but may not follow the order of this YLP. Check the 5DP Server to see if your school has created supporting documents to help you match resources to standards.

Overview of Standards

Standard	Block 1 Sept-Oct	Block 2 Nov-Dec	Block 3 Jan-Feb	Block 4 Mar-Apr	Block 5 May-Jun	Comments
Earth's Systems						
K-ESS2-1	X	X	X	X	X	Addressed daily as part of morning routine (calendar, weather graph etc.)
K-ESS2-2		X		X		Block 2: Change of environment to prepare for hibernation, environment/season changes Block 4: Plants and animals prepare and change for spring
Earth and Human Activity						
K-ESS3-2	X	X	X	X	X	Addressed daily as part of morning routine (calendar, weather graph etc.)
K-ESS3-3				X	X	Earth Day leads to discussion and instruction that talks about natural resources
From Molecules to Organisms: Structures and Processes						
K-LS1-1	X	X		X	X	Block 1: All About Me, Life cycles of apples and pumpkins Block 2: Harvest Season, Turkeys, Hibernation Block 4: Seasonal changes, Life cycle, changes in environment and animals after winter/hibernation Block 5: Life Cycles of Plants and Animals
K-LS1-2 MA	X	X		X	X	Block 1: All About Me, Life cycles of apples and pumpkins Block 2: Harvest Season, Turkeys, Hibernation Block 4: Seasonal changes, Life cycle, changes in environment and animals after winter/hibernation Block 5: Life Cycles of Plants and Animals

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Matter and its Interactions						
K-PS1-1 MA			X	X		States of Matter/Snow, Ice
Motion and Stability						
K-PS2-1			X			Indoor recess lends itself to using time to explore
Energy						
K-PS3-1	X		X		X	Block 1: Sunny and warm weather to be outside investigating sun's effects Block 3: Despite cold weather, sunlight still warms the earth's surface Block 5: Seasons changing, the sun effects the earth in different ways
K-PS3-2					X	The sun is strongest in the summer months so it is a great time to build a structure or talk about tress/shade etc.

KINDERGARTEN SCIENCE – Block 1 (September-October)	
SCIENCE STANDARDS	
K-ESS2-1	Use and share quantitative observations of local weather conditions to describe patterns over time. <i>Clarification Statements: Examples of quantitative observations could include numbers of sunny, windy, and rainy days in a month, and relative temperature. Quantitative observations should be limited to whole numbers.</i>
K-ESS3-2	Obtain and use information about weather forecasting to prepare for, and respond to, different types of local weather.
K-LS1-1	Observe and communicate that animals (including humans) and plants need food, water, and air to survive. Animals get food from plants or other animals. Plants make their own food and need light to live and grow.
K-LS1-2	Recognize that all plants and animals grow and change over time.
K-PS3-1	Make observations to determine that sunlight warms materials on Earth’s surface. <i>Clarification Statements: Examples of materials on Earth’s surface could include sand, soil, rocks, and water. Measures of temperature should be limited to relative measures such as warmer/cooler.</i>

KINDERGARTEN SCIENCE – Block 2 (November-December)	
SCIENCE STANDARDS	
K-ESS2-1	Use and share quantitative observations of local weather conditions to describe patterns over time. <i>Clarification Statements: Examples of quantitative observations could include numbers of sunny, windy, and rainy days in a month, and relative temperature. Quantitative observations should be limited to whole numbers.</i>
K-ESS2-2	Construct an argument supported by evidence for how plants and animals (including humans) can change the environment. <i>Clarification Statement: Examples of plants and animals changing their environment could include a squirrel digging holes in the ground and tree roots that break concrete.</i>
K-ESS3-2	Obtain and use information about weather forecasting to prepare for, and respond to, different types of local weather.
K-LS1-1	Observe and communicate that animals (including humans) and plants need food, water, and air to survive. Animals get food from plants or other animals. Plants make their own food and need light to live and grow.
K-LS1-2	Recognize that all plants and animals grow and change over time.

KINDERGARTEN SCIENCE – Block 3 (January-February)**SCIENCE STANDARDS**

K-ESS2-1	Use and share quantitative observations of local weather conditions to describe patterns over time. Clarification Statements: Examples of quantitative observations could include numbers of sunny, windy, and rainy days in a month, and relative temperature. Quantitative observations should be limited to whole numbers.
K-ESS3-2	Obtain and use information about weather forecasting to prepare for, and respond to, different types of local weather.
K-PS1-1 MA	Investigate and communicate the idea that different kinds of materials can be solid or liquid depending on temperature. Clarification Statements: Materials chosen must exhibit solid and liquid states in a reasonable temperature range for kindergarten students (e.g., 0–80°F), such as water, crayons, or glue sticks. Only a qualitative description of temperature, such as hot, warm, and cool, is expected.
K-PS2-1	Compare the effects of different strengths or different directions of pushes and pulls on the motion of an object. Clarification Statements: Examples of pushes or pulls could include a string attached to an object being pulled, a person pushing an object, a person stopping a rolling ball, and two objects colliding and pushing on each other. Comparisons should be on different relative strengths or different directions, not both at the same time. Non-contact pushes or pulls such as those produced by magnets are not expected.
K-PS3-1	Make observations to determine that sunlight warms materials on Earth’s surface. Clarification Statements: Examples of materials on Earth’s surface could include sand, soil, rocks, and water. Measures of temperature should be limited to relative measures such as warmer/cooler.

KINDERGARTEN SCIENCE – Block 4 (March-April)**SCIENCE STANDARDS**

K-ESS2-1	Use and share quantitative observations of local weather conditions to describe patterns over time. Clarification Statements: Examples of quantitative observations could include numbers of sunny, windy, and rainy days in a month, and relative temperature. Quantitative observations should be limited to whole numbers.
K-ESS2-2	Construct an argument supported by evidence for how plants and animals (including humans) can change the environment. Clarification Statement: Examples of plants and animals changing their environment could include a squirrel digging holes in the ground and tree roots that break concrete.
K-ESS3-2	Obtain and use information about weather forecasting to prepare for, and respond to, different types of local weather.
K-ESS3-3	Communicate solutions to reduce the amount of natural resources an individual uses. Clarification Statement: Examples of solutions could include reusing paper to reduce the number of trees cut down and recycling cans and bottles to reduce the amount of plastic or metal used.
K-LS1-1	Observe and communicate that animals (including humans) and plants need food, water, and air to survive. Animals get food from plants or other animals. Plants make their own food and need light to live and grow.
K-LS1-2	Recognize that all plants and animals grow and change over time.
K-PS1-1 MA	Investigate and communicate the idea that different kinds of materials can be solid or liquid depending on temperature. Clarification Statements: Materials chosen must exhibit solid and liquid states in a reasonable temperature range for kindergarten students (e.g., 0–80°F), such as water, crayons, or glue sticks. Only a qualitative description of temperature, such as hot, warm, and cool, is expected.

KINDERGARTEN SCIENCE – Block 5 (May-June)**SCIENCE STANDARDS**

K-ESS2-1	Use and share quantitative observations of local weather conditions to describe patterns over time. Clarification Statements: Examples of quantitative observations could include numbers of sunny, windy, and rainy days in a month, and relative temperature. Quantitative observations should be limited to whole numbers.
K-ESS3-2	Obtain and use information about weather forecasting to prepare for, and respond to, different types of local weather.
K-ESS3-3	Communicate solutions to reduce the amount of natural resources an individual uses. Clarification Statement: Examples of solutions could include reusing paper to reduce the number of trees cut down and recycling cans and bottles to reduce the amount of plastic or metal used.
K-LS1-1	Observe and communicate that animals (including humans) and plants need food, water, and air to survive. Animals get food from plants or other animals. Plants make their own food and need light to live and grow.
K-LS1-2	Recognize that all plants and animals grow and change over time.
K-PS1-1 MA	Investigate and communicate the idea that different kinds of materials can be solid or liquid depending on temperature. Clarification Statements: Materials chosen must exhibit solid and liquid states in a reasonable temperature range for kindergarten students (e.g., 0–80°F), such as water, crayons, or glue sticks. Only a qualitative description of temperature, such as hot, warm, and cool, is expected.
K-PS3-2	Use tools and materials to design and build a model of a structure that will reduce the warming effect of sunlight on an area.

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