



Grade 2 Science Yearlong Curriculum Plan

Last modified: June 2017 (Pilot)

SUMMARY

The school year begins with focuses on the needs of plants and animals, habitats, and the needs of ecosystems during the months of September and October. We then roll into November and December by mapping and identifying bodies of water and landforms. During January and February children will be interacting with the ways that water shape the land and surrounding areas. The months of March and April introduce students into the various properties of matter. Finally, we end during the months of May and June with matters interaction of energy. Technology standards will be incorporated throughout the end of the year months of May and June.

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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 five blocks 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 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

Earth's Systems

Standard	Block 1 Sept-Oct	Block 2 Nov-Dec	Block 3 Jan-Feb	Block 4 Mar-Apr	Block 5 May-Jun
2-ESS2-1			X		
2-ESS2-2		X			
2-ESS2-3		X			
2-ESS2-4 (MA)			X		
Ecosystems: Interactions, Energy, and Dynamics					
2-LS2-3(MA)	X				
Biological Evolution: Unity and Diversity					
2-LS4-1	X				
Matter and its Interactions					
2-PS1-1				X	
2-PS1-2				X	
2-PS1-3				X	
2-PS1-4					X
Energy					
2-PS3-1 (MA)					X
Engineering Design					
2.K-2-ETS1-3			X		X

GRADE 2 SCIENCE – Block 1 (September-October)

SCIENCE STANDARDS

2-LS2-3	Develop and use models to compare how plants and animals depend on their surroundings and other living things to meet their needs in the places they live. <i>Clarification Statement: Animals need food, water, air, shelter, and favorable temperature; plants need sufficient light, water, minerals, favorable temperature, and animals or other mechanisms to disperse seeds.</i>
2-LS4-1	Use texts, media, or local environments to observe and compare (a) different kinds of living things in an area, and (b) differences in the kinds of living things living in different types of areas. <i>Clarification Statements: Examples of areas to compare can include temperate forest, desert, tropical rain forest, grassland, arctic, and aquatic. Specific animal and plant names in specific areas are not expected.</i>

GRADE 2 SCIENCE – Block 2 (November-December)

SCIENCE STANDARDS

2-ESS2-2	Map the shapes and types of landforms and bodies of water in an area. <i>Clarification Statements: Examples of types of landforms can include hills, valleys, river banks, and dunes, Examples of water bodies can include streams, ponds, bays, and rivers, Quantitative scaling in models or contour mapping is not expected.</i>
2-ESS2-3	Use examples obtained from informational sources to explain that water is found in the ocean, rivers and streams, lakes and ponds, and may be solid or liquid.

GRADE 2 SCIENCE – Block 3 (January-February)

SCIENCE STANDARDS

2-ESS2-1	Investigate and compare the effectiveness of multiple solutions designed to slow or prevent wind or water from changing the shape of the land. Clarification Statements: Solutions to be compared could include different designs of dikes and windbreaks to hold back wind and water, and different designs for using shrubs, grass, and trees to hold back the land. Solutions can be generated or provided.
2-ESS2-4 (MA)	Observe how blowing wind and flowing water can move Earth materials from one place to another and change the shape of a landform. Clarification Statement: Examples of types of landforms can include hills, valleys, river banks, and dunes.
ENGINEERING DESIGN STANDARDS	
2.K-2-ETS1-3	Analyze data from tests of two objects designed to solve the same design problem to compare the strengths and weaknesses of how each object performs. Clarification Statements: Data can include observations and be either qualitative or quantitative. Examples can include how different objects insulate cold water or how different types of grocery bags perform.

GRADE 2 SCIENCE – Block 4 (March-April)

SCIENCE STANDARDS

2-PS1-1	Describe and classify different kinds of materials by observable properties of color, flexibility, hardness, texture, and absorbency.
2-PS1-2	Test different materials and analyze the data obtained to determine which materials have the properties that are best suited for an intended purpose. Clarification Statements: Examples of properties could include, color, flexibility, hardness, texture, and absorbency. Data should focus on qualitative and relative observations.
2-PS1-3	Analyze a variety of evidence to conclude that when a chunk of material is cut or broken into pieces, each piece is still the same material and, however small each piece is, has weight. Show that the material properties of a small set of pieces do not change when the pieces are used to build larger objects. Clarification Statements: Materials should be pure substances or microscopic mixtures that appear contiguous at observable scales. Examples of pieces could include blocks, building bricks, and other assorted small objects.

GRADE 2 SCIENCE – Block 5 (May-June)

SCIENCE STANDARDS

2-PS1-4	Construct an argument with evidence that some changes to materials caused by heating or cooling can be reversed and some cannot. <i>Clarification Statements: Examples of reversible changes could include materials such as water and butter at different temperatures. Examples of irreversible changes could include cooking an egg, freezing a plant leaf, and burning paper.</i>
2-PS3-1 (MA)	Design and conduct an experiment to show the effects of friction on the relative temperature and speed of objects that rub against each other. <i>Clarification Statements: Examples could include an object sliding on rough vs. smooth surfaces. Observations of temperature and speed should be qualitative.</i>

ENGINEERING DESIGN STANDARDS

2.K-2-ETS1-3	Analyze data from tests of two objects designed to solve the same design problem to compare the strengths and weaknesses of how each object performs. <i>Clarification Statements: Data can include observations and be either qualitative or quantitative. Examples can include how different objects insulate cold water or how different types of grocery bags perform.</i>
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