Teacher's Guide





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MAGAZINE ARTICLES

Spring in My Backyard
A Nest on My Porch
Who's Been Here?
Watch the Birdie
Hidden Wonders
Name That Tree!

Click: Backyard Explorer © April 2017

Teacher's Guide for *Click: Backyard Explorer*

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OVERVIEW

In this magazine, readers will learn about backyard activities and the many interesting plants, animals and insects they can find when they explore the

backyard. **Click: Backyard Explorer** includes information about backyards and what they look like in different regions of the country, a family of robins nesting on a porch, animal tracks, attracting more birds to your backyard, and the many ways families can have fun in the backyard.

ESSENTIAL QUESTION:

Who's in the backyard in spring?



Using This Guide

We invite you to use this magazine as a flexible teaching tool, ideal for providing interdisciplinary instruction of social studies and science content as well as core literacy concepts. Find practical advice for teaching individual articles or use a mini-unit that helps your students make cross-text connections as they integrate ideas and information.

READ INDIVIDUAL ARTICLES PAGES 4 - 10

Each article in this magazine is well-suited for teaching literacy concepts and content area knowledge. For each individual article in this guide, you'll find the following:





TEACH A MINI-UNIT PAGES 12 - 14

Magazine articles can easily be grouped to make cross-text connections and comparisons. Our Mini-Unit allows students to read and discuss multiple articles and integrate ideas and information (CCSS.Reading.9). Discussing multiple articles (CCSS.Reading.9) prepares students to write texts to share and publish in a variety of ways (CCSS.Writing.2).



Skills and Standards Overview

Essential Question: Who's in the backyard in spring?

MAGAZINE ARTICLES	CORE CONTENT	LITERACY SKILLS	CORRESPONDING CCSS ANCHOR STANDARDS
Spring in My Backyard Narrative Nonfiction	Seasonal patterns can be observed and described.	 Close Reading Identify Sensory Details Analyze Text Features Write a Description 	Reading 1, 3, 4 & 5 Writing 2
A Nest on My Porch Journal	Young animals are very much, but not exactly, like their parents.	 Close Reading Analyze Text Structure Analyze Visual Information Create a Nature Notebook 	Reading 2, 3, 5 & 7 Writing 2
Who's Been Here? Photo Essay	Different animals use their body parts in different ways to move from place to place,.	 Close Reading Determine Author's Purpose Interpret Visual Information Tell an Animal Track Story 	Reading 2, 3, 6 & 7 Speaking & Listening 1 & 6
Watch the Birdie Expository Nonfiction	Animals depend on their surroundings to get what they need, including food, water, and shelter.	 Close Reading Determine Author's Purpose Interpret Visual Information Write Directions 	Reading 1, 3, 6 & 7 Writing 2
Hidden Wonders Contemporary Realistic Fiction	There are many different kinds of living things in any area.	 Close Reading Analyze Text Structure Interpret Visual Information Find and Share Facts 	Reading 2, 3, 5 & 7 Writing 2 & 7 Speaking & Listening 4
Name That Tree! Contemporary Realistic Fiction	Individuals of the same kind of plant or animal are recognizable as similar but can also vary in many ways.	 Close Reading Analyze Relationships Compare Characters Compare Leaves 	Reading 3 & 9 Speaking & Listening 1 & 6

Comparing Texts: Reading 9

Mini-Unit: Reading 1, 2, 3 & 4, Writing 2



ARTICLE: Spring in My Backyard

Magazine pages 8 - 11, Narrative Nonfiction



What does spring look like in different regions of the United States?

ESSENTIAL QUESTION

Who's in the backyard in spring?

CORE CONTENT

Science Seasonal patterns can be observed and described.

CROSS-CURRICULAR EXTENSION

Art Draw a picture of you and your family in your backyard. Show an activity you like to do together. Include the different plants and animals you see there. Write a caption at the bottom of the picture to explain what it shows.

KEY VOCABULARY

fog (p. 8) many small drops of water floating in the air above the ground or the sea

gravel (p. 9) small pieces of rock

cactus (p. 9) a plant that lives in the desert and has many sharp points, called spines

blossoms (p. 11) a flower, especially of a fruit tree

PREPARE TO READ

Explain that this story tells what different people enjoy doing outdoors in spring. Share something you like to do and then ask students to share what they like to do. Tell students that in this story, they will learn what spring is like in different places. Circle these places on a map and then circle your city.

CLOSE READING AND TEXT ANALYSIS

Key Ideas

- What did you learn about spring in this story? Support your answer with information from the story and the illustrations. *CCSS Reading 1*
- Why do you think all the characters are outside? Use details from the story and the illustrations to support your response. *CCSS Reading 3*
- How are the characters in the story having fun? Support your answer with details from the story and the illustrations. *CCSS Reading 3*

Craft and Structure

- Identify Sensory Details Find words and phrases in the story that help you understand how things look, sound, smell, taste, and feel. Write the words and phrases in the Five Senses Chart (p. 15). CCSS Reading 4
- Analyze Text Features What do the headings at the top of each page tell you? What do you learn about each place? Write details about each place in the Text Feature Chart (p. 16). CCSS Reading 5

WRITING

Write a Description The backyards in this story are in different places—the seashore, the desert, the country and the city. Where is your backyard? What do you see and do in your backyard in spring? Write a story that answers these questions. Use details that tell how things look, sound, smell, taste, and feel in your backyard. Write a heading at the top of your page that tells the city and state you live in.





ARTICLE: A Nest on My Porch

Magazine pages 12 - 16, Journal



A young boy uses a nature notebook to record his observations of two robins as they build a nest and raise a family on his back porch.

ESSENTIAL QUESTION

Who's in the backyard in spring?

CORE CONTENT CONCEPT

Science Young animals are very much, but not exactly, like their parents.

CROSS-CURRICULAR EXTENSION

Science How long does it take a baby robin to hatch from its egg? How does a baby robin get out of the egg? Who feeds and takes care of baby robins? Look for library books and websites to learn more about baby robins.

KEY VOCABULARY

nestlings (p. 14) young birds that are not yet able to fly away from the nest

grub (p. 14) the young form of an insect in which it looks like a small worm

fledgling (p. 16) developing the feathers necessary for flying

PREPARE TO READ

Use the following questions to discuss bird nests: Why do birds build nests? What do they use to build their nests? Are nests usually down low to the ground or up high? Why is this? Invite students to share information about and experiences with bird nests. Explain that this story is about nesting robins.

CLOSE READING AND TEXT ANALYSIS

Key Ideas

- What is the main topic of this story? Use details from the words and pictures to support your answer. *CCSS Reading 2*
- What are three important details about robins in the story? Cite details from the story to support your response. *CCSS Reading 2*
- Why did Mama and Papa Robin fly at the cat that was staring at the nest? Support your answer with information from the story. *CCSS Reading 3*

Craft and Structure

- **Analyze Text Structure** This story is written in the form of a nature notebook. What are some things you notice about the way this story looks on the page? How is it different from other stories you have read? *CCSS Reading 5*
- Interpret Visual Information Match the photographs and pictures to the information in the text. What does each picture help you understand? Talk about this with a partner. *CCSS Reading 7*

WRITING

Create a Nature Notebook Become a nature observer in your backyard or a nearby park. You will need a notebook, a pen, and some markers or colored pencils. Choose a plant or animal in the yard to draw. First, just try to notice things about it, such as its shape, color, and markings. Then draw an outline of it and color it in. Label your drawing. Then write a few words to describe the plant or animal. Share your journal with the class.





ARTICLE: Who's Been Here?

Magazine pages 17 - 19, Photo Essay



Animal tracks are everywhere and each animal makes a different track. Readers learn about different ways animals make their tracks.

ESSENTIAL QUESTION

Who's in the backyard in spring?

CORE CONTENT

Science Different animals use their body parts in different ways to move from place to place.

CROSS-CURRICULAR EXTENSION

Science Pack a field guide to animal tracks and a magnifying glass, and look for animal tracks in your yard or a nearby park. They are easiest to find in mud, soft garden dirt, sand, or snow. Use the guide to figure out which animals made the tracks.

KEY VOCABULARY

tracks (p. 17) marks left on the ground by a moving animal, person, or vehicle

PREPARE TO READ

Ask students if they have ever seen animal footprints, or tracks, in snow, sand, or mud. Show students the tracks on page 17 of this article. Ask students to compare some of the tracks to notice how they are similar or different. Then invite students to guess which animals made the tracks.

CLOSE READING AND TEXT ANALYSIS

Key Ideas

- What is the topic of this article? How do you know? Use details from the article to support your response. *CCSS Reading 2*
- The frog and the rabbit are both hoppers. How are their feet similar? Use details from the article to support your answer. *CCSS Reading 3*
- The sparrow hops on the ground. Do you think the crow hops or walks? Support your answer with information from the illustrations. *CCSS Reading 3*

Craft and Structure

- **Determine Author's Purpose** What does the author of this article want you to learn about animal tracks? List three ideas the author tells about in the article. *CCSS Reading 6*
- Interpret Visual Information How are the words and the animal tracks connected? Work with a partner to talk about this. Then share and compare your ideas with other classmates. *CCSS Reading 7*

SPEAKING AND LISTENING

Tell an Animal Track Story Draw animal tracks to show a story. For example, you could show this story by drawing crow and dog tracks: "A crow was walking along. A dog ran over and scared it away." You could show this story by drawing frog and rabbit tracks: "A frog was hopping by. A rabbit came along. The rabbit and the frog decided to hop together." First think of your story. Then draw the tracks to show the story. Present your drawing and tell your story to the class.



ARTICLE: Watch the Birdie

Magazine pages 20 - 21, Expository Nonfiction



Birds are easier to hear than they are to see. This article describes two simple ways to attract more birds to the backyard so children can observe them.

ESSENTIAL QUESTION

Who's in the backyard in spring?

CORE CONTENT CONCEPT

Science Animals depend on their surroundings to get what they need, including food, water, and shelter.

CROSS-CURRICULAR EXTENSION

Science Choose one of these projects to complete at home. Hang your feeder or nesting materials near a window at home or in school. Then see what kinds of birds use it. Keep a journal to draw and describe what you see.

KEY VOCABULARY

tempt (p. 20) to attract someone or something by offering or showing something that is appealing

scales (p. 21) the many small thin plates that cover the bodies of some animals

whisk (p. 21) a cooking tool that is made of curved wire and that is used to stir or beat things

PREPARE TO READ

Gather students at a classroom window to see how many birds they can observe. Discuss what the birds are doing, and see if you or your students can identify any birds. Ask students to think of ways they could get more birds to come into the schoolyard. Then have students read this article.

CLOSE READING AND TEXT ANALYSIS

Key Ideas

- How can making a bird feeder help you see more birds? Support your answer with details from the article. *CCSS Reading 1*
- Would you have to buy a lot of supplies to make these projects? Support your answer using information from the article. *CCSS Reading 1*
- How are these two projects similar? Use information from the article to support your answer. *CCSS Reading 3*

Craft and Structure

- Determine Author's Purpose Sometimes writers use parentheses to give extra information about a topic. Parentheses are two curved lines that look like this (). Find information in parentheses on pages 20 and 21. What does it help readers understand? *CCSS Reading 6*
- Interpret Visual Information Do the photographs help you understand how to make each project? Explain how they help. CCSS Reading 7

WRITING

Write Directions Choose one of the projects in this article and use the Directions organizer (p. 17) to write directions for it. First, list the supplies you need to make the project. Then write a list of steps that tells readers what to do. Be sure to number your steps. Add a title and draw a picture on the page. Then display your directions in the classroom.





ARTICLE: Hidden Wonders

Magazine pages 22 - 25, Contemporary Realistic Fiction



A young boy and his adventurous aunt explore the backyard and discover many interesting plants, animals, and insects there.

ESSENTIAL QUESTION

Who's in the backyard in spring?

CORE CONTENT CONCEPT

Science There are many different kinds of living things in any area.

CROSS-CURRICULAR EXTENSION

Math List different bugs you might find in your yard, such as ladybugs, butterflies, and ants. Then go outside to look for them. Keep a tally for each bug and add other bugs to your list as you find them. Create a picture to show bug amounts.

KEY VOCABULARY

katydid (p. 23) a large green insect that looks like a large grasshopper

mate (p. 24) either one of a pair of animals that are breeding

acrobat (p. 25) someone who entertains people by performing difficult and often dangerous acts, such as swinging from a bar or walking on a rope high in the air

PREPARE TO READ

Ask students what kinds of insects and animals they would expect to find in their backyards or in a nearby park. Jot these on the board. Discuss where in their yards they might find these creatures. Explain that the next story tells about the different creatures and plants in one boy's backyard.

CLOSE READING AND TEXT ANALYSIS

Key Ideas

- What is this story mainly about? Support your answer with details from the story. *CCSS Reading 2*
- What does Cam learn from Aunt Deb? Use details from the story to support your answer. *CCSS Reading 3*
- Are Cam and Aunt Deb both explorers? Use information from the story to explain your answer. CCSS Reading 3

Craft and Structure

- **Analyze Text Structure** This text tells a story. It also gives facts about katydids and woodpeckers. Find five facts in the story and write them down. Then get together with a partner and compare your facts. *CCSS Reading 5*
- Interpret Visual Information Look at the photographs on page 25. Why did the author include so many photographs? How are they connected to the story information on this page? *CCSS Reading 7*

SPEAKING AND LISTENING

Find and Share Facts What animal from the story would you like to learn about? A squirrel? A grasshopper? A ladybug? A butterfly? Choose one animal. Then look in library books and on the internet to find five facts about it. Write the facts on a piece of paper. Next, draw a large picture of the animal. Include the animal's name. Share your facts and picture with your class.





ARTICLE: Name That Tree! Magazine pages 27 - 33, Contemporary Realistic Fiction



Jorie and her family are cleaning up the backyard to get it ready for a new season. Mom is weeding and Daddy is raking. Jorie and her brother discover different kinds of seeds and Mom tells them which trees they came from.

ESSENTIAL QUESTION

Who's in the backyard in spring?

CORE CONTENT

Science Individuals of the same kind of plant or animal are recognizable as similar but can also vary in many ways.

CROSS-CURRICULAR EXTENSION

Reading Read some books about trees. Here are three great choices: *A Tree Is Nice* by Janice May Udry, *Next Time You See a Maple Seed* by Emily Morgan, and *Old Elm Speaks: Tree Poems* by Kristine O'Connell George.

KEY VOCABULARY

expert (p. 28) a person who has special skill or knowledge relating to a particular subject

hesitate (p. 29) to stop briefly before you do something because you are unsure about what to do

compost (p. 33) a decayed mixture of plants that is used to improve the soil in a garden

bushel (p. 33) a large amount of something

PREPARE TO READ

If possible, bring in maple seeds and let students throw them in the air to make them spin. Ask why they are called helicopters. (Alternative: Show a picture of different tree seeds from the internet and discuss shapes, colors, and trees they come from.) Tell students they will learn about tree seeds in this story.

CLOSE READING AND TEXT ANALYSIS

Key Ideas

- Why are Jorie and her family out in the backyard? Support your answer with details from the story and illustrations. *CCSS Reading 3*
- What do Jorie and Benny find in the backyard? Use information in the story and the illustrations to support your answer. *CCSS Reading 3*
- How does Daddy play a trick on everybody? Support your answer with details from the story. *CCSS Reading 3*

Craft and Structure

- Analyze Relationships This story tells about three different trees: red maples, sugar maples, and slippery elms. Use the Three Trees chart (p. 18) to record information from the story about these trees. *CCSS Reading 3*
- **Compare Characters** Compare Jorie's mom and dad. How are they the same? How are they different? Look for information in the story. Use the Venn diagram (p. 19) to record your answers. *CCSS Reading* 9

SPEAKING AND LISTENING

Compare Leaves Find three different leaves and bring them to school in a plastic baggie. Get together with other classmates to look closely at each other's leaves. What do you notice about them? Do they all look the same? How are they different? How many points do they have? Use a magnifying glass to help you observe. Decide which leaves have the same shape. Then compare the size of the leaves. Line them up from smallest to largest.

CROSS-TEXT CONNECTIONS

SYNTHESIZE: Guide students to compare articles they read. Help students find the connections between pieces of information in multiple articles. Use prompts, such as the following examples, to have students work together to **Integrate Ideas and Information** *(CCSS.Reading.9)*.

- Cheep, cheep! Caw, caw! What sounds do different birds make? Find words in this
 magazine that describe bird sounds. Make a two-column chart with the headings
 "Type of Bird" and "Bird Sound." Use this chart to record the sounds you find in
 "Spring in My Backyard," "A Nest on My Porch," "Watch the Birdie," and "Hidden
 Wonders." Then get together with classmates to compare the sounds you found.
 Discuss why the birds make these sounds.
- It seems like everyone in this issue of *Click* is out in the backyard having fun. What kinds of activities are people enjoying? Look through these stories to find out: "Spring in My Backyard," "A Nest on My Porch," "Hidden Wonders," and "Name That Tree." Make a list of at least five different activities. Then write sentences to describe what you like to do in your backyard.
- In "Hidden Wonders," Cam and his Aunt Deb are exploring nature. In "Name That Tree," Jorie is having fun outside with her family. Compare Cam's and Jorie's experiences and adventures. How are these experiences similar? How are they different? Write your ideas in a Venn diagram (p. 19).
- Take a nature hike through this magazine to see what kinds of plants, animals, and insects you can find. First, make a chart with three columns. Write these headings above the columns: "Animals," "Plants," and "Insects." Then look through the different articles to find three examples of animals, plants, and insects and add them to your chart.
- Look at "Who's Been Here?" and "Hidden Wonders." Which text tells a story? Which text gives information? How are these texts similar? How are they different? Make a list of the similarities and another list of differences.

EXPLORATORY LEARNING - FLEXIBLE MINI-UNIT DESIGN

ENGAGE

READ FOR A PURPOSE

APPLY

This mini-unit offers students an opportunity to observe and think about plants, animals, and insects in spring. Students will go outside with the teacher to make and share observations. Then they will use this information, along with information from the magazine texts, to list the many plants and creatures found in backyards. Finally, they will use this information to make a classroom set of backyard bingo cards.

ENGAGE: Engage students in the topic of backyard wildlife by first reviewing the Essential Question: Who's in the backyard in spring? Distribute paper, pencils, and clipboards to students. Explain that they are going into the schoolyard to see what plants, insects, animals, and animal signs they can observe. Tell them they will have 10 minutes to write down what they see.

When you get back to the classroom, have students take turns sharing what they observed. Record the information in a chart like the one below. Keep the chart on display for use later in this mini-unit.

Plants	Animals	
Insects	Signs of animals (tracks, nests)	

READ FOR A PURPOSE

INTRODUCE THE ACTIVITY: BACKYARD BINGO CARDS Explain to students that they will be making bingo cards with the plants, animals, insects, and animal signs they observed in the schoolyard and in the magazine articles. Continue by explaining that they will use these cards to play bingo in the schoolyard. Show students the blank bingo cards (p. 14) and make sure all students know how to play bingo.

RETURN TO THE TEXT: Explain to students that the first step in this project is to look for and list plants, animals, insects, and signs of animals in the magazine. Divide the class into six groups and assign one magazine text to each group. Have group members work individually for 5-10 minutes to list the items they find in the text and illustrations. Then return to the chart you created in the Engage activity. Have students share what they found and add this information to the chart.

Students may find the same items, but don't list items more than once in the chart. When possible, make items less specific and easier to find. For example, instead of writing maple leaves or slippery elm leaves in the chart, write pointy leaves and round leaves. The chart does not need to be exhaustive.

MINI-UNIT (cont.)

APPLY: BACKYARD BINGO CARDS Now that students have gathered information from the magazine articles and their own schoolyard observations, they are ready to create their bingo cards.

Materials

- Backyard Bingo handout (p. 14), one per student
- Class chart with Engage and Return to the Text activities
- writing pencils, markers, crayons, colored pencils

Build Background Display the chart you created in the Engage and Return to the Text activities. Explain to students that they will be writing and drawing for this project. Continue by explaining the steps of the project:

- 1. Choose different animals, plants, insects, and animal signs from the class chart to include on the bingo card.
- 2. Write the names of the animals, plants, insects, and animal signs in the squares of the bingo cards.
- 3. Check the spelling of the words.
- 4. Add a picture to each square to show the word.

STEP 1: Write Distribute bingo forms to students. Explain that students should choose a different item for each square. Help students understand that they should not include all plants or all animals on their cards but a variety of items. Remind students to write the words neatly on the bottom lines of the squares.

STEP 2: Edit Tell students to start at the top left square of the bingo card and go down each column to check the spelling of the words they wrote. Encourage students to rewrite words that aren't neat.

STEP 3: Illustrate Distribute art supplies. Depending on time, you may want to have students choose 5-10 squares to illustrate.

STEP 4: Share Have students place their cards on top of their desks. Allow students time to walk around and look at the different cards. You may want to gather the cards to keep as a classroom set, either in your room or in the library. If possible, laminate them. As soon as possible, take students out to play bingo in the schoolyard.





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FIVE SENSES

How things look	How things sound

How things taste	How things feel
	How things taste

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NAME: _____

TEXT FEATURES

San Diego, California	Sedona, Arizona	Louisville, Kentucky	Washington DC

NAME:	
	ECTIONS
	
Title:	
What You Need	
What to Do	



THREE TREES

	Silver maple	Red maple	Slippery Elm
1. Draw the seed			
2. Find words that describe the seed			
3. Draw the leaf			
4. Find words that describe the leaf			



Appendix Meeting State and National Standards: Core Instructional Concepts

The articles in this magazine provide a wealth of opportunities for meeting state and national instructional standards. The following pages contain charts listing Core Instructional Concepts for each of three curricular areas: English Language Arts, Science, and Social Studies.

USING THE STANDARDS CHARTS

ELA

Corresponding CCSS anchor standards have been listed next to each item on the Core Instructional Concepts chart. To customize the chart, add your own grade, state, or district standards in the last column. Match the concepts and standards from the chart to the activities on each page of the Teacher's Guide to complete your lesson plans.

SOCIAL STUDIES

Content Concepts in each Article Guide are based on Dimension 2 of the CS Framework for Social Studies: Applying Disciplinary Concepts and Tools. Use the last column in the accompanying chart to correlate these concepts to your state or district standards.

SCIENCE

Content Concepts in each Article Guide are drawn from the Three Dimensions of the Next Generation Science Standards. You will also find connections to these concepts within individual close-reading questions.

MATH

Content Opportunities for math activities are provided in the Cross-Curricular extensions on each Article Guide page.

CORE INSTRUCTIONAL CONCEPTS: READING, LITERATURE, AND LANGUAGE ARTS

SKILLS AND CONCEPTS	CCSS ANCHOR	CORRESPONDING
SKILLS AND CONCEPTS	STANDARD	STANDARD

KEY IDEAS AND DETAILS

Read closely to determine what a text says explicitly.	Reading 1	
Make logical inferences to determine what the text communicates implicitly.	Reading 1	
Cite specific textual evidence to support conclusions drawn from the text.	Reading 1	
Determine central ideas or themes of a text and analyze their development.	Reading 2	
Summarize key supporting details and ideas.	Reading 2	
Analyze how individuals, events, and ideas develop and interact over the course of a text.	Reading 3	

CRAFT AND STRUCTURE

Interpret words and phrases as they are used in a text.	Reading 4	
Determine technical, connotative, and figurative meanings.	Reading 4	
Analyze how specific word choices shape meaning or tone.	Reading 4	
Analyze the structure of texts (sequence, cause/effect, compare/ contrast, problem/solution)	Reading 5	
Recognize the genre, key elements, and characteristics of literary texts.	Reading 5	
Assess how point of view or purpose shapes the content and style of a text.	Reading 6	
Analyze how an author's style and tone affects meaning.	Reading 6	

INTEGRATION OF KNOWLEDGE AND IDEAS

Integrate and evaluate content presented in diverse media and formats.	Reading 7	
Identify and evaluate the argument and claims in a text.	Reading 8	
Analyze how two or more texts address similar themes or topics.	Reading 9	

WRITING

Write arguments to support claims, using valid reasoning and relevant	Writing 1	
and sufficient evidence.		
Write informative/explanatory texts to examine and convey complex	M/riting 2	
ideas and information clearly and accurately.	Writing 2	
Write narratives to develop real or imagined experiences or events.	Writing 3	
Draw evidence from literary or informational texts to support analysis,	Writing 9	
reflection, and research.		
Conduct short as well as more sustained research projects.	Writing 10	



CORE INSTRUCTIONAL CONCEPTS: SOCIAL STUDIES

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CIVICS	
Analyze the origins, functions, and structure of different governments and the origins and	
purposes of laws and key constitutional provisions.	
Summarize core civic virtues and democratic principles.	
Evaluate policies intended to address social issues.	

ECONOMICS

Evaluate the benefits and costs of individual economic choices.	
Analyze economic incentives, including those that cause people and businesses to specialize and trade.	
Explain the importance of resources (i.e. labor, human capital, physical capital, natural resources) in methods of economic production.	
Explain the functions of money in a market economy.	
Explain the importance of competition in a market economy.	
Apply economic concepts (i.e. interest rate, inflation, supply and demand) and theories of how individual and government actions affect the production of goods and services.	
Analyze economic patterns, including activity and interactions between and within nations.	

GEOGRAPHY

Construct and use maps and other graphic representations (i.e. images, photographs, etc.) of	
different places.	
Explain cultural influences on the way people live and modify and adapt to their environments.	
Analyze places, including their physical, cultural and environmental characteristics and how	
they change over time.	
Analyze movement of people, goods, and ideas.	
Analyze regions, including how they relate to one another and the world as a whole from a	
political, economic, historical, and geographic perspective.	

HISTORY

Interpret historical context to understand relationships among historical events or	
developments.	
Evaluate historical events and developments to identify them as examples of historical change	
and/or continuity.	
Analyze perspectives, including factors that influence why and how individuals and groups	
develop different ones.	
Evaluate historical sources, including their reliability, relevancy, utility, and limitations.	
Analyze causes and effects, both intended and unintended, of historical developments.	

Dimension 1 focuses on the practice of science, and how knowledge is continually adapted based on new findings. The eight practices of the K-12 Science and Engineering Curriculum are as follows:

CORE INSTRUCTIONAL CONCEPTS: SCIENCE

- Asking questions (for science) and defining problems (for engineering)
- Developing and using models
- Planning and carrying out investigations
- Analyzing and interpreting data

- Using mathematics and computational thinking
- Constructing explanations (for science) and designing solutions (for engineering)
- Engaging in argument from evidence
- Obtaining, evaluating, and communicating information

DIMENSION 2: CROSSCUTTING CONCEPTS

Dimension 2 provides an organizational schema for integrating and interrelating knowledge from different science domains. The eight NGSS Crosscutting Concepts are as follows:

- Patterns
- Similarity and Diversity
- Cause and Effect
- Scale, Proportion, and Quantity

- Systems and System Models
- Energy and Matter
- Structure and Function
- Stability and Change

DIMENSION 3: DIMENSIONS AND DISCIPLINARY CORE IDEAS

Dimension 3 presents a contained set of Disciplinary Core Ideas to support deeper understanding and application of content. The following chart details Core Ideas for curriculum, instructional content, and assessments within four domains.

LIFE SCIENCE

Stages

Animals

Plants

Structure and

Function of

Living Things

Life Cycles and

Reproduction &

Inherited Traits

- PHYSICAL SCIENCE
 - Forces and Interactions
 - Energy
 - Light
- Sound
- Electricity/ Magnetism
- Matter
- Waves
- Heat
- Chemistry
- Information Processing

- EARTH SCIENCE
 - Weather
 - Climate
 - Rocks & Soil Erosion and
 - Weathering
 - Landforms
 - Water
 - Oceans
 - History of Earth
 - Plate Tectonics
 - Volcanoes, Earthquakes.
 - and Tsunamis

- SPACE SYSTEMS
- Solar System
- Planets
- Moon
- Sun

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