

## Core Knowledge Science Program - Domain Map

### Science Content

- The four seasons
- Characteristic local weather patterns during the different seasons

- The sun: source of light and warmth
- Daily weather changes:
  - Temperature: thermometers are used to measure temperature
  - Clouds
  - Rainfall: how the condition of the ground varies with rainfall; rainbows
  - Thunderstorms: lightning and thunder, hail, safety during thunderstorms
  - Snow and snowflakes, blizzard

***This unit contributes to meeting or exceeding the following Next Generation Science Standards:***  
*Standards noted with an asterisk (\*) are those that incorporate engineering and design*

**K-ESS2-1.** Use and share observations of local weather conditions to describe patterns over time.

**K-ESS3-2.** Ask questions to obtain information about the purpose of weather forecasting to prepare for, and respond to, severe weather.\*

**K-PS3-1.** Make observations to determine the effect of sunlight on Earth's surface.

**K-PS3-2.** Use tools and materials to design and build a structure that will reduce the warming effect of sunlight on an area.\*

***Rationale:***

This unit directly relates to all four of these standards, which are grouped within the NGSS topic of [Weather and Climate](#) for Kindergarten. The applicable core ideas embedded within this unit are: [ESS2.D](#), [ESS3.B](#), [ETS2.B](#), and [PS3.B](#). This unit also presents an excellent opportunity for students to apply their early learning about the sun, temperature, and thermometers to complete a design challenge relative to standard [K-PS3-2](#).

This Core Knowledge Science unit also kicks off the progression for learning about seasonal cycles and patterns, which will be extended and applied in Grade 1 during the Unit 2 *Astronomy*.

**This unit offers the opportunity to foreshadow learning that will support the following Next Generation Science Standards:**

This unit connects to many future topics and standards, including:

[1-ESS1-1](#), [1-ESS1-2](#), [2-ESS1-1](#), [2-ESS2-1](#), [2-ESS2-3](#), and the [Grade 2 Topic: Structure & Properties of Matter](#).

**Rationale:**

This unit is a particularly important foundation for students as the phenomena of seasons and weather reach across multiple disciplines in science. Through this unit students begin their earliest understandings of the sun ([ESS1.A](#)), they begin discussing cycles of events on Earth ([ESS1.C](#))—seasonal patterns ([ESS1.B](#))—as well as the importance of wind and water in Earth’s systems ([ESS2.A](#) and [ESS2.C](#)). This unit also offers students concrete examples and experiences with temperature and the different states of matter ([PS1.A](#)) as they apply their previous learning about the basic needs of humans, other animals, and plants ([LS1.C](#)).

**Potential Skills & Cross-Curricular Integrations**

*The connections listed below are intended as ideas for possible integration across this unit. Finding connections in math, in language arts, and in works of poetry, art, and music, may help you as you create meaningful learning experiences for your students. Connections such as these can help your students make links between various disciplines and deepen their understanding of this domain.*

**POTENTIAL CCSS Math Connections**

[MP.2](#) Reason abstractly and quantitatively. (K-ESS2-1)

[MP.4](#) Model with mathematics. (K-ESS2-1),(K-ESS3-2)

[K.CC](#) Counting and Cardinality (K-ESS3-2)

[K.CC.A](#) Know number names and the count sequence. (K-ESS2-1)

[K.MD.A.1](#) Describe measurable attributes of objects, such as length or weight. Describe several measurable attributes of a single object. (K-ESS2-1)

[K.MD.A.2](#) Directly compare two objects with a measurable attribute in common, to see which object has “more of”/“less of” the attribute, and describe the difference. (K- PS3-1),(K-PS3-2)

[K.MD.B.3](#) Classify objects into given categories; count the number of objects in each category and sort the categories by count. (K-ESS2-1)

**POTENTIAL** CCSS ELA Connections

RI.K.1 With prompting and support, ask and answer questions about key details in a text. (K-ESS3-2)

W.K.7 Participate in shared research and writing projects (e.g., explore a number of books by a favorite author and express opinions about them). (K-PS3-1),(K-PS3-2),(K-ESS2-1)

SL.K.3 Ask and answer questions in order to seek help, get information, or clarify something that is not understood. (K-ESS3-2)

**POTENTIAL** Cross-Curricular Connections

**ELA:** Poetry—"It's Raining, It's Pouring," "April Rain Song," "Rain, Rain, Go Away," "I Do Not Mind You, Winter Wind," "The More It Snows," and "Rain"

Sayings & Phrases—"April showers bring May flowers" and "[It's] raining cats and dogs"

**Visual Arts:** Elements of Art (Color)—Pieter Bruegel the Elder, *Hunters in the Snow*

**Music:** Songs—"Eensy, Weensy Spider"

**Mathematics:** Measurement of temperature and time—relative temperatures (hotter/colder), sequencing events, and orientation in time (today, yesterday, tomorrow; morning, afternoon; this morning versus yesterday morning, etc.)

**Prior Knowledge****Core Knowledge Preschool Sequence**

Scientific Reasoning and the Physical World

*Goal: Demonstrate an initial understanding of the living world*

Observe, describe and record:

- some basic properties of water, its presence and its effects in the physical world
- some basic properties of air, its presence and its effects in the physical world
- some basic properties of light, its presence and its effects in the physical world
- some characteristics of weather
- some characteristics of the seasons

**CKLA Preschool**

- Defining, reviewing, and expanding on words such as *autumn, spring, summer, and winter* relative to specific habitats (e.g., woodlands and deserts)

**Core Knowledge Science** (Previously taught Kindergarten units)

*Unit 3 Plants & Farms*

- Identify what plants need in order to live and grow
- Compare and contrast plants' basic needs (to survive) to the needs of animals and human beings
- Identify the needs of crops on a farm
- Describe the process of harvesting crops to people purchasing produce to consume

## CKLA Kindergarten Objectives

The following objectives are addressed through the Core Knowledge Language Arts program (CKLA), which builds students' background knowledge in certain domains of literature, science, and history. To learn more about how and why the Listening & Learning Strand of CKLA approaches science content through read-alouds and ELA instruction, [read more about the CKLA program](#).

### Domain Anthology, *Seasons and Weather*

- Demonstrate understanding of the following units of time and their relationship to one another: day, week, month, year
- Name the four seasons in cyclical order, as experienced in the United States, and correctly name a few characteristics of each season
- Characterize winter as generally the coldest season, summer as generally the warmest season, and spring and autumn as transitional seasons
- Draw pictures that show an understanding of each season
- Characterize the North and South Poles as always cold in temperature, the middle section of the earth as usually warm, and most of the United States as having four seasons
- Describe daily weather conditions of their own locality in terms of temperature (hot, warm, cool, cold), cloud cover (sunny, cloudy), and precipitation (rain, snow, or sleet)
- Name at least one month in a specific season while referring to a calendar
- Name at least one holiday in a specific season
- Describe any unique seasonal differences that are characteristic of their own locality (change of color and dropping of leaves in autumn; snow or ice in winter; increased rain and/or flooding in spring, etc.)
- Identify ways in which weather affects daily routines, such as dress, activities, etc.
- Identify a thermometer as an instrument used to measure temperature and describe how it works: when it is hotter outside, the liquid in the thermometer rises; when it is cooler, the liquid descends
- Explain the lesson the grasshopper learns at the end of the fable “The Grasshopper and the Ants”
- Identify the following characteristics of thunderstorms: heavy rain, thunder, lightning, and strong winds
- Describe safe and unsafe behaviors during thunderstorms
- Explain why weather prediction is important in their daily lives

## What Students Will Learn in Future Grades

### Core Knowledge Sequence

#### Grade 2

#### II. Cycles in Nature

- A. Seasonal Cycles
  - Four Seasons and Earth's orbit around the sun
  - Seasons and life processes

- C. Introduction to the Water Cycle
- Most of the earth’s surface is covered by water.
  - The water cycle:
    - Evaporation and condensation
    - Water vapor in the air, humidity
    - Clouds: cirrus, cumulus, stratus
    - Precipitation, groundwater

**Grade 4**

V. Meteorology (including review from Grade 2)

- The Water Cycle: evaporation, condensation, precipitation
- Types of clouds: cirrus, stratus, cumulus
- The atmosphere:
  - Troposphere, stratosphere, mesosphere, thermosphere, exosphere
  - How the sun and the earth heat the atmosphere
- Air movement: wind direction and speed, prevailing winds, air pressure, low and high pressure, air masses
- Cold and warm fronts: thunderheads, lightning and electric charge, thunder, tornadoes, hurricanes
- Forecasting the weather: barometers (relation between changes in atmospheric pressure and weather), weather maps, weather satellites
- Weather and climate: “weather” refers to daily changes in temperature, rainfall, sunshine, etc., while “climate” refers to weather trends that are longer than the cycle of the seasons

**Core Vocabulary**

*The following list contains the core vocabulary words suggested for purposeful integration across this Kindergarten unit. **Boldfaced** terms could be introduced and/or reviewed with students using a Word Work activity, as modeled by the [Core Knowledge Language Arts program \(CKLA\)](#). The inclusion of the words on this list does not mean that students are immediately expected to be able to use all of these words on their own. However, through repeated exposure across the lessons, students should acquire a good understanding of most of these words and begin to use some in conversation.*

**Seasons**

*season, **autumn**, fall, winter, spring, summer, year, month, [months of the year], calendar, **cycle**, earth, daylight, weather, average, trend, different, change, **condition**, warm(er), cool(er), wet, dry, outside, inside, [activities common during the different seasons]*

**Predicting Weather**

***meteorologist**, meteorology, **forecast**, news, radio, station, **predict**, community, area, map, outlook, notice, record, describe, effect, cause, problem, danger, careful, cautious, safety, precaution, rule, raincoat, umbrella, cancel, help, tool, technology, structure, satellite, weather vane, design, warning, siren, prepare, respond, **reduce**, impact, event, indoor, outdoor, shelter*

### Local Weather Patterns

water, rain, rainfall, raindrop, snow, snowflake, ice, crystal, **precipitation**, soak, shower, wind, direction, blowing, atmosphere, air, sun, sunlight, heat, local, **pattern**, daily, temperature, thermometer, humid, **measure**, take, record, chart, observe, observation, data, morning, afternoon, freezing, melt(ing), thaw, characteristic, normal, common, (un)likely, rare, sometimes, often, climate, **region**, zone

### Other Weather Patterns

sunny, cloud(y), calm, **overcast**, thunder, lightning, strike, flash, boom, loud, rumble, clap, storm, **severe**, extreme, **blizzard**, harsh, **flood**, flash, pour, hail, sleet, puddle, **drizzle**, sprinkle, flurry, slush, splash, tornado, twister, hurricane, typhoon, rainbow, color, [colors of the rainbow] fog, mist, scatter, frigid, shovel, sweat, chill, shiver, clothing

## Potential Misconceptions

*Students have been shown to learn significantly more science when their teachers demonstrate strong knowledge of potential student errors, and when the teacher plans accordingly (Sadler & Sonnert, 2016). The following incorrect statements serve as a sampling of the “intuitive theories” or “alternative conceptions” that students and teachers may actively use to describe their thinking, and which might interfere with the process of learning. The details following each statement are not intended to imply the scope of instruction for this grade, but instead provide a clearer sense of what students (of all ages) often misunderstand and/or overgeneralize when investigating and describing scientific ideas.*

### Misconception: “The seasons are caused by the earth’s changing distance from the sun.”

Students of all ages (including college and adult learners) have difficulty understanding and explaining the causes of the seasons. The root misconception behind this has been identified as a belief that the earth orbits the sun in an elongated elliptical path (Galili & Lavrik, 1998; Sadler, 1998). Other students, citing the tilt of the Earth on its axis, believe that the changing distance between a hemisphere and the sun is the cause of seasons (e.g., “summer occurs because our hemisphere is closer to the sun”). Teachers should be sure to understand that the distance to the sun changes relatively little, and that these minor changes cannot explain seasonal variations.

### Misconception: “Lightning never strikes the same place twice.”

Lightning tends to strike the highest points in a given area, as a result, such locations are likely to be struck repeatedly (Nelson, Aron & Francek, 1992).

### Misconception: “Thunder occurs when two clouds collide.”

Thunder and lightning are the visible and auditory effects of a massive charge transfer between clouds. (Russell et al 1993 as cited in Dove, 1998).

### Misconception: “Snow and ice make it cold.”

Snow and ice are a result of cold temperatures, not the cause.



**Misconception: “Air and oxygen are the same thing.”**

Air is a mixture of gases, including nitrogen, oxygen, argon, and carbon dioxide.

**Misconception: “The seasons cause the weather to change.”**

Certain weather patterns and temperatures are associated with a particular season. A season is a classification of a period of time, not a force that causes weather.

**Key points for instruction:**

The existence of water vapor in the atmosphere can be difficult for students to understand even into the middle school grades (Lee. et. al, 1993; Johnson, 1998). The focus of this Kindergarten unit should be on relative amounts of rainfall and snow during certain seasons, the condition of the ground when it rains, and *not* on the causes of precipitation. Grades 2 and 4 will provide specialized instruction to address potential misconceptions such as, “When water evaporates it ceases to exist” and “Evaporated water is still liquid, but it has changed locations.”

**Potential Objectives for this Kindergarten Unit**

*The organization of the following objectives reflects the order in which they are expected to be addressed. The proposed timing within the unit (“beginning,” “middle,” or “end”) and aligned NGSS are also noted. In addition to daily lessons focused on each objective, days have been built into the unit for review and assessment.*

**Beginning**

- Describe how weather affects people in their day-to-day lives
- Describe weather patterns and temperature at different times of the year
- Compare and contrast weather in our community to a different region of the country
- Identify the four seasons
- Describe weather patterns associated with fall and winter
- Describe weather patterns associated with spring and summer
- Identify a tool that can be used to measure temperature
- Use thermometers to measure water and air temperature (**ongoing**)
- Observe and record local weather conditions (**ongoing**)

**Middle**

- Predict when objects will have hotter and cooler temperatures
- Describe how the sun affects the temperature
- Describe how sunlight affects materials on Earth (K-PS3-1)
- Describe characteristics of clouds
- Describe what clouds tell us about the weather

**End**

- Define the term ‘forecast’
- Describe why weather forecasts are important when the weather is expected to be severe
- Describe how to stay safe during severe weather
- Describe how weather conditions change over time (e.g., over the course of several days/weeks) (K-ESS2-1)

### Potential Big Guiding Questions

#### Essential Questions:

- How do the seasons and weather affect living things?
- Why are weather forecasts important?

#### RE: Seasons:

- How are the summer and winter different?
- How are the spring and autumn (fall) similar?
- What types of activities can you do in the summer, but not in the winter?

#### RE: Weather:

- When do we get the most snow? (or rain?)
- Has this week/month been mostly rainy, cloudy, or sunny?
- What causes the outside temperature to change?
- What kinds of severe weather are common in our area?

#### RE: Forecasting the weather:

- How can weather forecasts protect people from harm?
- What tools help people to forecast the weather?
- What can you do to be safe during different kinds of storms?

### Potential Assessment Opportunities

*The following assessment tasks serve as a sampling of how students can demonstrate mastery of lesson objectives. Each aligned objective and NGSS is noted in parentheses. In addition, the proposed timing ( “beginning,” “middle,” or “end”) is noted in order to indicate approximately when the assessment should take place.*

#### Example #1: (Middle of Unit 4)

**{Evaluates Student Mastery of Objective:** “Predict when objects will have hotter and cooler temperatures,” and “Use thermometers to measure water and air temperature”}

#### Advance Preparation:

- Three plastic/paper cups labeled “A,” “B,” and “C.”
- Digital thermometers
- Access to warm/lukewarm water
- Ice cubes

**Task Assessment:** Place three cups (each filled with water) in front of a small group of students. Cup “A” is filled with warm water, cup “B” is filled with water at room temperature, and cup “C” is filled with cold water (water and ice cubes). Allow the students to take the temperature by feeling the water in each cup. Ask students to predict which cup (A, B, or C) will have the warmest temperature when measured with the



thermometer. Ask students to predict which cup will have the coldest temperature. As students make their predictions ask them to explain their thinking.

Hand each student a digital thermometer. Ask students to place their thermometers in the cup of water they think will have the coldest temperature. (Students should place their thermometers in cup “C”; however, if several students do not, that’s ok.) Ask students to read (or show you) the temperature on the thermometer. Record the temperature on chart paper. (If some students picked a different cup, ask them to feel the water and their cup and then the water in cup “C.” Ask which feels colder. Ask what that will tell them about the temperature--the water that feels colder has a colder temperature.) Ask students to place their thermometer in the cup with the warmest water. (Students can feel the water in all three cups again if they can’t remember.) Ask students to read/show you the temperature on the thermometer. Record the temperature on chart paper. Ask students which cup of water hasn’t been measured yet--cup “B.” Ask students to feel the water in cup “A” and then cup “B.” Share the water temperature they measured for cup “A,” then ask students if they believe that the water in cup “B” will have a warmer temperature than cup “A,” and why. Students should predict that “A” will have a warmer temperature because the water in that cup feels warmer than the water in cup “B.” Ask students to place their thermometers in cup “B” and share the temperature. Record the temperature on the chart paper. Direct student’s attention to the chart paper and discuss how the feeling of the water (warm, room temperature, cold) compared to the actual water temperature. Water that felt warm had a warmer temperature than water that felt cold.

#### Example #2: (Middle of Unit 4)

{Evaluates Student Mastery of Objective: “Describe how sunlight affects materials on Earth (e.g., sand, dirt, rocks, water, grass)”} (K-PS3-1)

#### Advance Preparation:

- This assessment requires the following objects:
  - two rocks (approximate same size and shape)
  - two cups filled with same amount of dirt or potting soil
  - two cups filled same amount of water
  - two cups filled with the same amount of grass clippings or leaves.
- Place one of each object in an area of your classroom that is shaded and place the remaining objects on a windowsill or area of your classroom that receives direct sunlight for most of the day. It may be helpful to place each object that is sitting in the sun on top of a small colored plate (e.g., green) and use plates of a different color (e.g., purple) for each object sitting in the shade. Let the objects sit out for a day (or several if sunlight is limited) prior to administering this task assessment.

**Task Assessment:** Place the alike objects side-by-side in front of a small group of students. Confirm with students that each of these materials are found on Earth. The materials on green plates have been sitting on the window sill for the past \_\_\_ days while the objects that are placed on the purple plates have been placed [location of the classroom], which does not receive direct sunlight.

**T- You will be comparing these materials through careful observations. You will use your sense of touch to determine how the sun can affect materials on Earth.**

Ask the students to pair up and provide each pair with alike objects (e.g., the two rocks). Ask them to first feel the object that has been sitting in the shade (on the purple plate) and describe what it feels like. Next, ask students to feel the object that has been sitting in the sun.

**T- Does it feel different?**

If needed, elicit responses by asking guiding questions, such as, “How does it feel different compared to the \_\_\_ that was sitting in the shade?” Students should respond that the object sitting in the sun feels warmer or hotter and the object that sat in shade feels cooler or colder. Record students’ thoughts on chart paper.

Refer students to the data collected on the chart paper. Read the observations students made when observing the objects through sight alone and then the observations they made when they touch the objects.

**T- What does that tell us about the sun? How does sunlight affect objects on Earth, like rocks, water, grass, and dirt? How do you know?**

Students responses should allude to the idea that the sun warms objects on the earth. To support their answers they should refer back to how the objects sitting in the sun felt warmer/hotter compared to objects sitting in the shade.

### Potential Activities & Procedures

*The following activities or procedures serve as a sampling of what instruction could look like in this unit. Each example was specifically designed to contribute to one or more of the aforementioned objectives. In addition, the proposed timing (“beginning,” “middle,” or “end”) is noted in order to indicate approximately when the activity should be conducted during this unit. Aligned NGSS are noted in parentheses.*

#### **Example #1: (Beginning of Unit 4)**

**{Contributes to the Objectives:** “Describe weather patterns and temperature at different times of the year”}

**Activity:** To activate students’ prior knowledge about the seasons (and connecting this to Unit 1 *The Human Body: Basic Needs & Five Senses*) encourage your class to think about what they see, hear, smell, taste, and/or touch during different times of the year {asking about one sense at a time}. Write all ideas on chart paper, sorting by the time of year or season as defined by the students. Consider also prompting the students to think about the types of weather that they would expect to see, hear, etc. during different times of the year. Discuss with students that, during this unit, they will learn more about differences between times of the year called seasons, such as how much rain or snow falls and/or how hot or cold it is outside. Post and return to this chart as students progress across the unit to review and add to your list of predicted observations.

**Example #2: (Beginning of Unit 4)**

{**Contributes to the Objective:** “Use thermometers to measure water and air temperature”}

**Activity:** As part of a daily routine (e.g., morning calendar activities), discuss local weather conditions. This should include asking students if the weather is visibly sunny, windy, cloudy, rainy, snowy as well as collecting the daily temperature.

If possible, affix an analog thermometer outside a classroom window that can be read from inside. Explain that this type of thermometer measures the air temperature and model daily how you read the outside temperature. If and when students are able, ask them to read the daily temperature. At the end of every week discuss the recorded weather patterns.

**Websites & Media****Timelapse Videos of the Seasons:**

<https://vimeo.com/search?duration=short&q=timelapse+seasons>

Timelapse videos of an area can highlight the kinds of changes that occur over extended periods of time. For example, you might show this [40 second video of a woodland area](#) that begins in the winter and progresses through all four seasons.

**Interactive Seasons Activities:**

<http://www.sheppardsoftware.com/scienceforkids/seasons/seasons.htm>

Select an interactive game to create images of the seasons using your students’ examples of what they might see or hear during each one. The images can be “painted” using colors and representations of the animals, plants, and activities that are identified by your students. The resulting image can also be printed to display a class-created picture of each season.

**Weather Games for Kids:** <http://www.weatherwizkids.com/weather-games.htm>

You may be able to use some of these digital games with your students, such as the *Weather Word Search* to find and discuss vocabulary used in this domain.

**Weather Underground:** <http://www.wunderground.com>

The Weather Underground network offers a wide selection of digital media that you could consider sharing with students. This includes [live webcams of weather around the U.S. and the world](#) (as well as time lapse videos of past days), [photos of various weather occurrences](#), and even [informative videos for teachers to learn more](#).

**Weather and Climate Resources from the OSU College of Education and Human Ecology:**

<http://beyondpenguins.ehe.osu.edu/issue/weather-and-climate-from-home-to-the-poles/>

The “Beyond Penguins and Polar Bears” project at OSU maintains useful information for teachers to build their background knowledge and to plan effective instruction that includes polar regions/examples so that they highlight the diversity of life and environments on Earth. Professional development resources, articles, and high-quality examples of lessons and activities are linked throughout this website and are offered under an Attribution-ShareAlike 3.0 Unported [Creative Commons License](https://creativecommons.org/licenses/by-sa/3.0/).

**SciJinks: It’s All About Weather:** <http://scijinks.jpl.nasa.gov/menu/topics/>

SciJinks is a joint project of NOAA and NASA that provides resources and digital media for topics including weather, satellite meteorology, and Earth science. The website is designed for middle and highschool students and their educators, however the Topics section can help you to build your background knowledge (e.g., “[What is the difference between climate and weather?](#)” and “[What is a heat wave?](#)”). The Multimedia section of this site also offers excellent digital photos of weather phenomena such as [clouds](#) and [other extreme weather, including tornadoes](#). An image or two from this set could be displayed to students and spark their questions and discussions about these amazing happenings.

**Supplemental Trade Books**

- *Animals in Winter* (Let’s-Read-and-Find-Out Science 1), by Henrietta Bancroft and Richard G. Van Gelder (HarperTrophy, 1996) ISBN 0064451658
- *Bring Me Some Apples and I’ll Make You a Pie: A Story about Edna Lewis*, by Robin Gourley (Houghton Mifflin Harcourt Publishing Company, 2009) ISBN 0618158362
- *Can You See the Wind?* (Rookie Read-About Science), by Allan Fowler (Children’s Press, 1999) ISBN 0516264796
- *The Cloud Book*, by Tomie de Paola (Holiday House, 1975) ISBN 0823405311
- *Energy from the Sun* (Rookie Read-About Science), by Allan Fowler (Children’s Press, 1998) ISBN 0516262556
- *Fall* (Thinking About the Seasons), by Clare Collinson (Sea-to-Sea Publications, 2011) ISBN 1597712590
- *Frederick*, by Leo Lionni (Dragonfly Books, 1973) ISBN 0394826140
- *Frog and Toad All Year*, by Arnold Lobel (HarperFestival, 1990) ISBN 1559942282
- *Four Seasons Make a Year*, by Anne Rockwell and pictures by Megan Halsey (Walker & Company, 2004) ISBN 0802788831
- *It’s Cold Where I Live*, by Leroy Taylor (National Geographic School Publishing, 2003) ISBN 0792242807

- *The Lake*, by Lily Richardson (National Geographic Society, 2003) ISBN 0792243498
- *The Reasons for Seasons*, by Gail Gibbons (Holiday House, 1996) ISBN 0590907352
- *The Seasons of Arnold's Apple Tree*, by Gail Gibbons (Voyager Books, 1988) ISBN 0152712453
- *Snow Is Falling* (Let's-Read-and-Find-Out-Science, Stage 1), by Franklyn Branley and Holly Keller (HarperTrophy, 2000) ISBN 0064451860
- *Snowflake Bentley*, by Jacqueline Briggs Martin (Houghton Mifflin, 1998) ISBN 0395861624
- *Tools Measure Weather*, by Lesley Pether (National Geographic School Publishing, 2003) ISBN 0792243420
- *Tornado Alert* (Let's-Read-and-Find-Out Science 2), by Franklyn M. Branley and Giulio Maestro (HarperTrophy, 1999) ISBN 0064450945
- *Watch the Sky*, by Jacob Fink (National Geographic Society, 2001) ISBN 0792289234
- *Weather Forecasting*, by Gail Gibbons (Aladdin Library, 1993) ISBN 0689716834
- *Weather in the City*, by George Wong (National Geographic Society, 2001) ISBN 0792289463
- *Weather Words and What They Mean*, by Gail Gibbons (Holiday House, 1992) ISBN 082340952X
- *What Will the Weather Be?*, by Linda DeWitt and illustrated by Carolyn Croll (HarperTrophy, 1993) ISBN 0064451135
- *What's the Weather Today?*, by Allan Fowler (Children's Press, 1991) ISBN 0516449184
- *When a Storm Comes Up* (Rookie Read-About Science), by Allan Fowler (Children's Press, 1995) ISBN 0516460358
- *When Spring Comes*, by Solomon Gordon (National Geographic Society, 2006) ISBN 0792242742
- *Why Do Leaves Change Color?* (Let's-Read-and-Find-Out Science, Stage 2), by Betsy Maestro and Loretta Krupinski (HarperTrophy, 1994) ISBN 0064451267
- *Winter* (Thinking About the Seasons), by Clare Collinson (Sea-to-Sea Publishing, 2011) ISBN 1597712620
- *Winter Is Here*, by Sid Webb (National Geographic Society, 2003) ISBN 0792242920
- *The Boy Who Didn't Believe in Spring*, by Lucille Clifton (Penguin Young Readers Group, 1992) ISBN 9780140547399
- *A Tree for All Seasons*, by Robin Bernard (National Geographic, 2001) ISBN 9780792266747
- *Whatever the Weather*, by Karen Wallace (DK Publishing, 1999) ISBN 9780789447500