

## Kindergarten Weather, Climate and Sunlight Resources

### Next Generation Science Standards: K-ESS2 “Earth’s Systems”

#### ESS2.D: Weather and Climate

Weather is the combination of sunlight, wind, snow or rain, and temperature in a particular region at a particular time. People measure these conditions to describe and record the weather and to notice patterns over time

#### ESS3.B: Natural Hazards

Some kinds of severe weather are more likely than others in a given region. Weather scientists forecast severe weather so that the communities can prepare for and respond to these events.

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

### Books:

*Sunlight* by Erin Edison (2012)

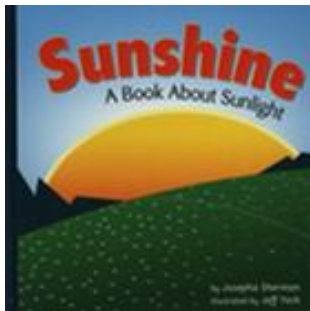
Includes index. Simple text and full-color photographs describe sunlight and how it causes temperature changes, the seasons, wind, and clouds.



Guided Reading: J  
24 Pages

*Sunshine: A Book about Sunlight* by Josephina Sherman (2004)

Includes bibliographical references (p. 24) and index. Sunrises, sunsets, rainbows - all these things come from the sun. Sunshine also gives us light, warmth, food, and creates all of our weather. Presents simple scientific information about sunlight, and includes an activity, fast facts, and a glossary.



Guided Reading: N  
24 Pages

*A Sunny Day* by Robin Nelson (2002)

Includes index. Photographs and text provide information about weather conditions and things to do on sunny days. Includes sunny day facts.

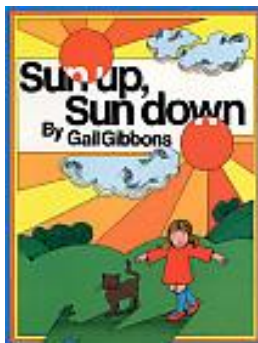


Guided Reading: D

23 Pages

*Sun Up, Sun Down* by Gail Gibbons (1983)

Describes the characteristics of the sun and the ways in which it regulates life on earth.

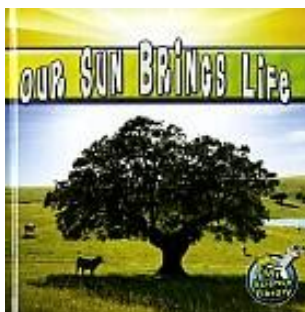


Guided Reading: J

32 Pages

*Our Sun Brings Life* by Conrad J. Storad (2012)

Includes bibliographical references (p. 24) and index. Simple text and photographs describe the importance of the sun to life on Earth. Provides facts about the sun and the important role it plays for our planet.



Guided Reading: F

24 Pages

*Rain* by Erin Edison (2012)

Includes index. Simple text and full-color photographs describe rain and its role in the water cycle.



Guided Reading: J

24 Pages

*Wind* by Erin Edison (2012)

Includes index. Simple text and full-color photographs describe wind and how it affects weather.



Guided Reading: J

24 Pages

*Snow* by Erin Edison (2012)

Includes index. Simple text and full-color photographs describe snow and how it affects people.



Guided Reading: J

24 Pages

*Lightning* by Erin Edison (2012)

Includes index. Simple text and full-color photographs describe lightning and how it forms.



Guided Reading: J

24 Pages

*Clouds* by Erin Edison (2012)

Includes index. Simple text and full-color photographs describe how clouds form and the different types of clouds.



Guided Reading: J

24 Pages

*Blizzards* by Kay Manolis (2009)

Includes bibliographical references (p. 23) and index. What is a blizzard? -- How do blizzards form? -- Predicting blizzards -- "The Superstorm". Simple text and full color photographs introduce beginning readers in kindergarten through third grade to the characteristics of blizzards.

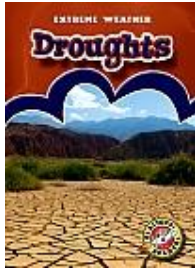


Guided Reading: M

24 Pages

*Droughts* by Anne Wendorff (2009)

Includes bibliographical references (p. 23) and index. What is a drought? -- The effects of a drought -- Conserving water. Simple text and full color photographs introduce beginning readers in kindergarten through third grade to the characteristics of droughts.



Guided Reading: L  
24 Pages

*Hurricanes* by Kay Manolis (2009)

Includes bibliographical references (p. 23) and index. What is a hurricane? -- How do hurricanes form? -- What can hurricanes do? -- Measuring and predicting hurricanes -- Hurricane Katrina. Simple text and full color photographs introduce beginning readers in kindergarten through third grade to the characteristics of hurricanes.



Guided Reading: L  
24 Pages

*Ice Storms* by Anne Wendorff (2009)

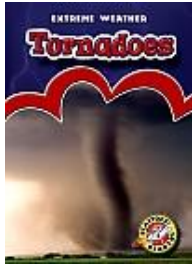
Includes bibliographical references (p. 23) and index. What is an ice storm? -- Ice storms and their effects -- Predicting ice storms -- The Canadian ice storm of 1998. Simple text and full color photographs introduce beginning readers in kindergarten through third grade to the characteristics of ice storms.



Guided Reading: M  
24 Pages

*Tornadoes* by Anne Wendorff (2009)

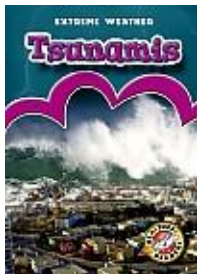
Includes bibliographical references (p. 23) and index. What is a tornado? -- How do tornados form? --How do tornados look and behave -- Predicting tornadoes -- Staying safe in a tornado. Simple text and full color photographs introduce beginning readers in kindergarten through third grade to the characteristics of tornadoes.



Guided Reading: M  
24 Pages

*Tsunamis* by Anne Wendorff (2009)

Includes bibliographical references (p. 23) and index. What is a tsunami? -- How do tsunamis form? -- What can tsunamis do? -- Measuring and predicting tsunamis -- The Indian Ocean Tsunami. Simple text and full color photographs introduce beginning readers in kindergarten through third grade to the characteristics of tsunamis.



Guided Reading: M  
24 Pages

*Forecasting Weather* by Terri Sievert (2012)

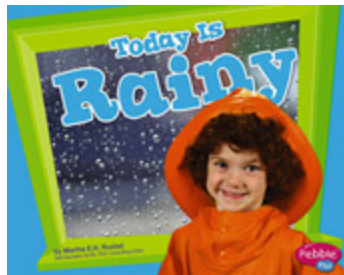
Includes bibliographical references (p. 23) and index. Photographs and easy-to-follow text introduce students to the different methods used to forecast weather, covering topics such as climate, air masses, air pressure, satellites, and radar, and includes instructions for making a rain gauge.



Guided Reading: L  
24 Pages

*How's the Weather Series* by Martha E. Rustad (2006)

How's the weather today? And how does it affect what we do and wear? This series matches exciting photographs with useful information for a rewarding reading experience, rain or shine.



Guided Reading: H  
24 Pages

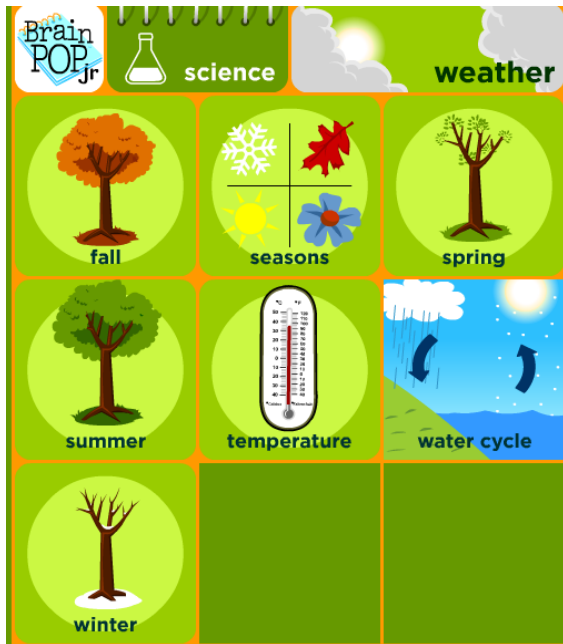
# Digital Resources

## Databases:

(To access these databases remotely, ask your librarian for your school's username and password.)

**Brainpop Jr.:** *Brainpop, Jr. is a database that provides a 3-6 minute video on informational topics followed by a comprehension quiz. The database includes activities and lesson plans as well. It is geared towards grades K-3.*

In the Science folder of Brainpop, Jr. you will find these videos on weather which align with Next Generation Science Standards for Kindergarten.



Two different online quizzes are offered after each video to check for understanding. They are entitled “Easy” and “Hard” with 5 questions each.





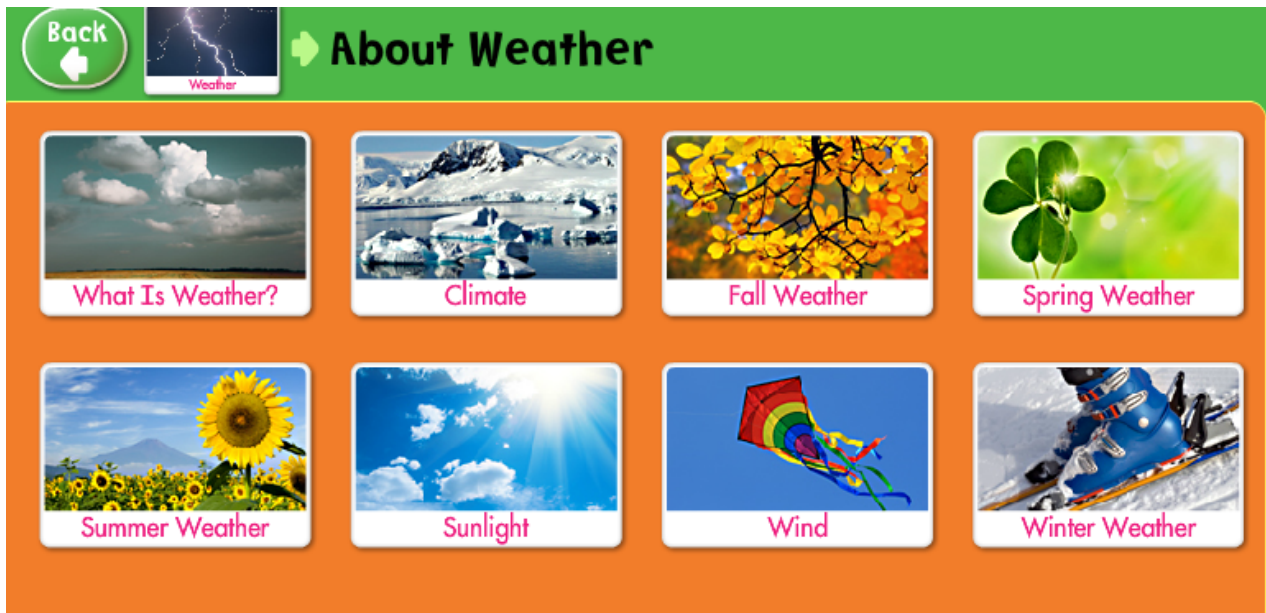
**Pebble Go!** *Pebble Go is a database that includes non-fiction books, videos and activities. The target audience for Pebble Go is Kindergarten through 3rd grade, however Pebble Go can be a great way to pique interest in a topic for 4th and 5th graders. Each book is 5 pages long and includes a read-aloud button that highlights each word as it reads aloud. There are often one or two very short videos on the topic embedded within each book.*

Pebble Go is the place to go for a host of resources that align with Next Generation Science Standards for Kindergarten on Weather, Climate and Sunlight. Here are the subjects covered. Within many of these subject are even more specific topics broken down.




The main menu for the 'Weather' section features a green header with a 'Back' button (a white arrow pointing left inside a circle) and the title 'Weather' in bold black text. Below the header is an orange background containing eight square buttons, each with a representative image and a pink text label: 'About Weather' (clouds), 'Clouds' (blue sky with clouds), 'Cold Weather' (icicles), 'Extreme Weather' (lightning), 'Hot Weather' (ice cream cone), 'Weather Science' (weather station), and 'Wet Weather' (rain with umbrellas).


If you click on "About Weather" you'll find these eight titles:




The sub-menu for 'About Weather' has a green header with a 'Back' button, a small 'Weather' icon (lightning bolt), and the title 'About Weather' in bold black text. Below the header is an orange background with eight square buttons, each with an image and a pink text label: 'What Is Weather?' (clouds), 'Climate' (icebergs), 'Fall Weather' (yellow leaves), 'Spring Weather' (green clover), 'Summer Weather' (sunflowers), 'Sunlight' (sun and clouds), 'Wind' (kites), and 'Winter Weather' (skier).

There are two books on clouds:

Back  ➔ **Clouds**

 **What Are Clouds?**

 **Types of Clouds**

Four books on Cold Weather:

Back  ➔ **Cold Weather**


 **About Cold Weather**


 **Ice, Hail, and Sleet**


 **Snow**


 **Snowflakes**


Six books on Extreme Weather:


Back  ➔ **Extreme Weather**


 **Blizzards**

 **Drought**

 **Hurricanes**

 **Lightning and Thunder**

 **Thunderstorms**

 **Tornadoes**

Three books on Weather Science:

[Back](#)  **Weather Science**

 **Forecasting Weather**

 **Measuring Weather**

 **Meteorologists**

Four books on Wet Weather:

[Back](#)  **Wet Weather**

 **Dew and Frost**

 **Fog**

 **Rain**

 **Rainbows**

One book on Hot Weather:

[Back](#)  **Hot Weather**

[What Is It?](#) [Why Is Humid Hotter?](#) [Heat Waves](#) [Staying Safe](#) [Hottest Place on Earth](#)

 [Video 1](#) [Video 2](#)

Hot weather usually means the **temperature** is above 75 **degrees Fahrenheit** (24 **degrees Celsius**). The sun shines and people try to stay cool. When hot days are also **humid**, it feels even hotter.

 [Print This](#)

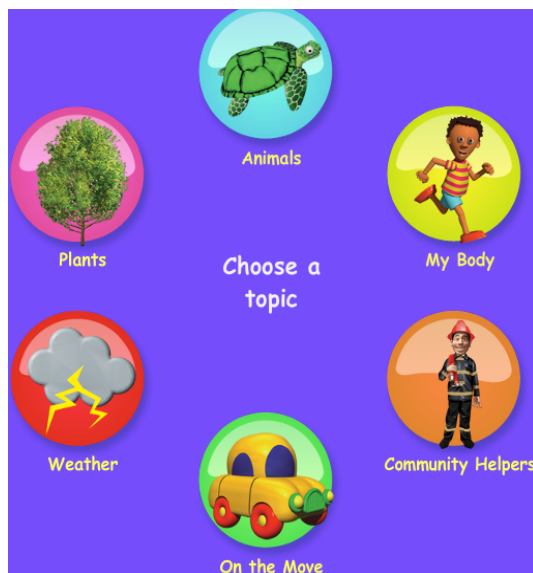
## World Book Web:

The World Book Web is a suite of online research tools that includes encyclopedia articles, primary source collections, educator tools, student activities, pictures, audio, and video, complemented by current periodicals and related Web sites. All Ithaca elementary school libraries currently subscribe to **World Book Kids**, **World Book Student**, **World Book Discover**, **World Book Timelines** and **World Book Classroom: Early World of Learning**. For specific training in how to use these amazing tools consult Worldbook's training website or ask your school's librarian. <http://www.worldbookonline.com/training/>

The best Kindergarten resources from the above list are in World Book Classroom: Early World of Learning. Early World of Learning includes a section on Weather and Climate that aligns with Kindergarten's Next Generation Science Standards.

In Early World of Learning first Click on "Know It," then on "Weather." Within weather there are a number of different options available to you. It is possible for you to create an account in Early World of Learning, set up a classroom, and use quizzes to check your students for

understanding. There are built-in quizzes, and you can also design your own.

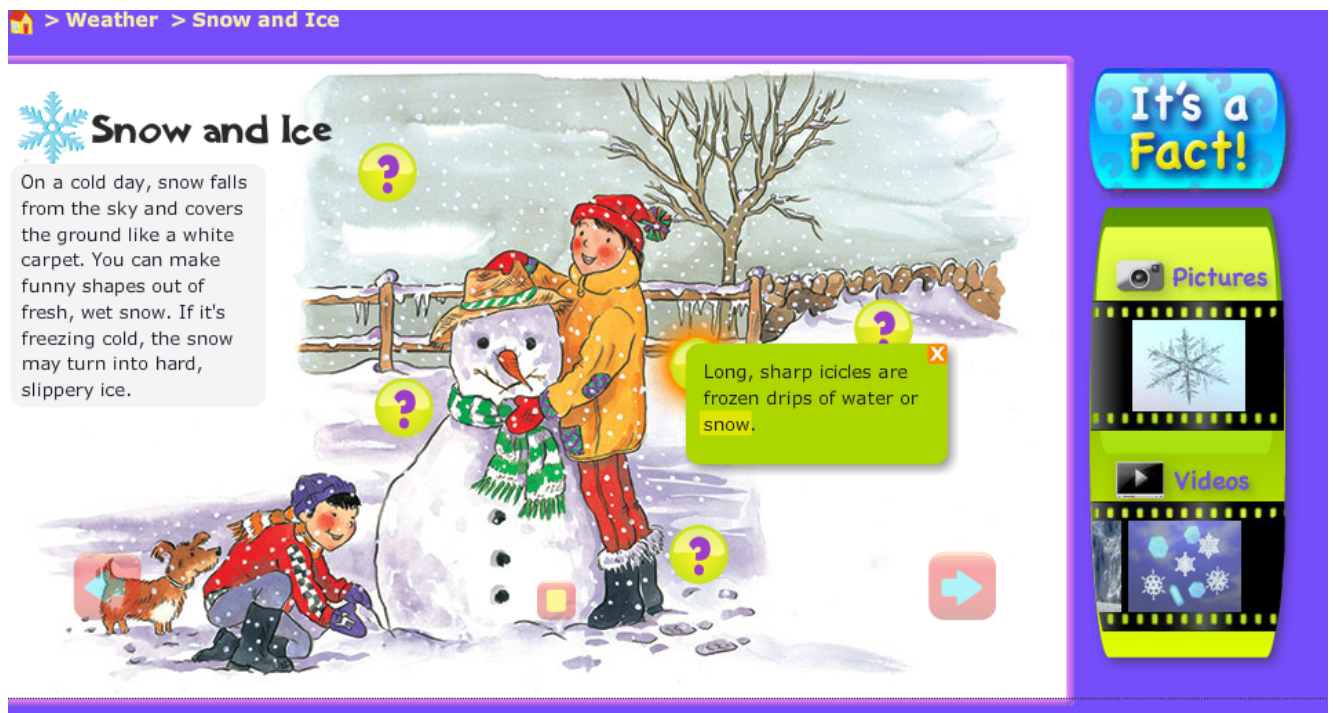




Students can choose from the following weather related subjects to learn more.



When you select a subject, there is a paragraph that is read aloud if you click on it. The question marks on the picture all include one fact that are read aloud if you click on them. There is a bonus fact in "It's a Fact!" There are also pictures and videos on the right to supplement the information on the left.



## Websites:

### ***BBC Kids: What is Weather***

<http://www.bbc.co.uk/schools/whatisweather/home.shtml>

This website includes activities on wind direction, wind force, precipitation, temperature, sunshine, visibility and clouds.

### ***K-4 Modules Website: Weather***

<http://www.cotf.edu/ete/modules/k4/weather/Whandson1.html>

Includes three lesson plans and a weather interactive game. The game is more for 3-4 grades, but the lessons could be incorporated into Kindergarten.

### ***Make Your Own Weather Station***

<http://learn.fi.edu/weather/todo/todo.html>

This website has many different science experiments dealing with weather such as keep your own weather journal and make your own anemometer. An anemometer measures wind speed and can be made with dixie cups.

## iPad apps:

### ***Seasons and Weather! - by Tribal Nova***

**Cost: Free**

The first level of this interactive game is free. Student can choose activities that are appropriate for characters Poko and Beebee based on the season and weather.

### ***Weather and Clock for Kids - by Kidoteca***

**Cost: \$1.99**

Includes current temperature, weather forecast, current time and current day for kids in an interactive environment with a cartoon mouse.

### ***Franklin and Friends: Franklin's Weather Fun - by Nelvana Digital***

**Cost: Free**

Kid-centric weather app which allows students to check the weather, try weather themed activities, learn weather facts and play with Franklin's weather machine.

### ***Kids Juke Box HD Weather - by WagleBagle***

**Cost: Free**

Meant for young children learning English, this app teaches a variety of weather words with flash cards and songs. Includes a memory game.