Title/Author: *Weather Words And What They Mean* by Gail Gibbons

Suggested Time to Spend: 7 Days (Recommendation: one session per day, approximately 30 minutes per day)

Common Core grade-level ELA/Literacy Standards: RI.2.1, RI.2.2, RI. 2.3, RI.2.4, RI.2.7; W.2.2, W.2.8; SL.2.1, SL. 2.2; L.2.1, L.2.2, L.2.4

Lesson Objective:

Students will listen to a book read aloud and use literacy skills (reading, writing, speaking and listening) to answer questions and complete activities.

Teacher Instructions

**Before the Lesson**

1. Read the Big Ideas and Key Understandings and the Synopsis below. **Please do not read this to the students**. This is a description to help you prepare to teach the book and be clear about what you want your children to take away from the work.

Big Ideas/Key Understandings/Focusing Question

A combination of factors influence what the weather is like from day to day, and they cannot be controlled by man. Weather has a great impact on the daily life of living things.

Synopsis

This book introduces and explains weather terms and concepts.

1. Go to the last page of the lesson and review “What Makes This Read-Aloud Complex.” This was created for you as part of the lesson and will give you guidance about what the lesson writers saw as the sources of complexity or key access points for this book. You will of course evaluate text complexity with your own students in mind, and make adjustments to the lesson pacing and even the suggested activities and questions.
2. Read the entire book, adding your own insights to the understandings identified. Also note the stopping points for the text-inspired questions and activities. *Hint: you may want to copy the questions, vocabulary words and activities over onto sticky notes so they can be stuck to the right pages for each day’s questions and vocabulary work.*
3. Consider pairing this series of lessons on *Weather Words* with a text set to increase student knowledge and familiarity with the topic. A custom text set can be found[here](https://achievethecore.org/page/2605/weather-words-and-what-they-mean-with-companion-text-set)[.](https://drive.google.com/drive/folders/0B66A6Ds77LpiU3dIZVFxMFFkLUk) *Note: This is particularly supportive of ELL students.*

*Note to teachers of English Language Learners (ELLs): Read Aloud Project Lessons are designed for children who cannot read yet for themselves. They are highly interactive and have many scaffolds built into the brief daily lessons to support reading comprehension. Because of this, they are filled with scaffolds that are appropriate for English Language Learners who, by definition, are developing language and learning to read (English). This read aloud text includes complex features which offer many opportunities for learning, but at the same time includes supports and structures to make the text accessible to even the youngest students.*

*This lesson includes features that align to best practices for supporting English Language Learners. Some of the supports you may see built into this, and /or other Read Aloud Project lessons, assist non-native speakers in the following ways:*

* *These lessons include embedded vocabulary scaffolds that help students acquire new vocabulary in the context of reading. They feature multi-modal ways of learning new words, including prompts for where to use visual representations, the inclusion of student-friendly definitions, built-in opportunities to use newly acquired vocabulary through discussion or activities, and featured academic vocabulary for deeper study.*
* *These lessons also include embedded scaffolds to help students make meaning of the text itself. It calls out opportunities for paired or small group discussion, includes recommendations for ways in which visuals, videos, and/or graphic organizers could aid in understanding, provides a mix of questions (both factual and inferential) to guide students gradually toward deeper understanding, and offers recommendations for supplementary texts to build background knowledge supporting the content in the anchor text.*
* *These lessons feature embedded supports to aid students in developing their overall language and communication skills by featuring scaffolds such as sentence frames for discussion and written work (more guidance available* [here](https://achievethecore.org/page/3159/ell-supports-for-writing-and-discussion)*) as well as writing opportunities (and the inclusion of graphic organizers to scaffold the writing process). These supports help students develop and use newly acquired vocabulary and text-based content knowledge.*

The Lesson – Questions, Activities, and Tasks

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| **Questions/Activities/Vocabulary/Tasks** | **Expected Outcome or Response (for each)** |
| **FIRST READING:**  Read aloud the entire book (or chapter) with minimal interruptions. Stop to provide word meanings or clarify only when you know the majority of your students will be confused. | The goal here is for students to enjoy the book, both writing and pictures, and to experience it as a whole. This will give them some context and sense of completion before they dive into examining the parts of the book more carefully. |
| **SECOND READING: Pages 1-5**  Teacher will create a class web for weather that will be updated during repeated readings of the text.  Prior to reading, explain to students that the pictures and speech bubbles interwoven throughout the book support their comprehension.  Page 1  What did you learn from the illustrations?  Page 2  What is weather made up of?  What causes temperature change?  Page 3  Explain what air pressure is.  Page 4-5  Teacher explains to students what evaporation is and conducts an experiment. The students will be making observations over several days. They will draw and take notes on what they observed in the experiment.  <http://www.ehow.com/info_8342820_viewing-evaporation-experiment-kids.html>  Look at the picture on page 5. Describe what is happening in the picture. | Air Pressure  Temperature  The weather changes daily. It can be sunny, rainy ,hot and  snowy. Weather words explain what the weather is like outside.  The weather is made up of temperature, air pressure, and how much moisture is in the air and how fast the wind is moving.  The position of the sun is what causes temperature change.  Air pressure is the force produced by the weight of the air pressing down in the earth.  The leaves are blowing because it is windy. |
| **THIRD READING: Pages 6-9**  Page 6  How is temperature affected by sunrise and sunset?  Page7  How does the temperature change with the seasons?  Pages 8-9  Create a Venn Diagram comparing and contrasting high pressure and low pressure. | When the sun rises in the morning the air becomes warmer and the temperature comes up. When the sun sets, the air becomes cooler and the temperature goes down.  In the summer, the sun is high in the sky. The days are warm and longer. In the winter, the sun is low in the sky. The days are cold and shorter.    High Pressure Low Pressure  Air particles Air particles are  are close far apart  Types of  pressure  Cool dry weather Usually bad weather |
| **FOURTH READING: Pages 10-12**  Page 10  Teacher provides explanation of humidity and provides examples.  Page 11  Have students complete a vocabulary chart for the words dew and frost.  Page 12  Show this video on the water cycle. Have students draw the water cycle. Students can compare the information on page 12  with the video.  <https://www.youtube.com/watch?v=gY9HG8zUgOE> | Humidity is the amount of moisture in the air. The air in the rainforest, sticky clothing on a hot day, frizzy hair are examples of humidity and its effects.  See the four square vocabulary chart at the end of this document.  Students sketch the water cycle while watching the video using images from the video and information from the text. |
| **FIFTH READING: Pages 13-16**  Page 13  How does a cloud form?  After page 13, create a chart of the three main types of clouds.  Pages 14-15  Create a cloud mobile. Incorporate information from the text.  <http://www.ehow.com/info_12073885_crafts-four-types-clouds.html> | When water evaporates from rivers, lakes and oceans, it is called vapor. It moves up with the warm air and forms little drops of water or ice crystals.   |  |  |  | | --- | --- | --- | | Types of Clouds | | | | Cumulous Clouds | Cirrus Clouds | Stratus Clouds | | Puffy  Fair weather clouds | Highest clouds  Fair weather clouds | Low, gray clouds  Brings rain or snow |   Students will create mobile using information from the text. |
| **SIXTH READING: Pages 17-22**  Pages 17-18  Describe the different ways rain comes down.  Students will use sounds and hand motions to show how rain comes down.  Page 19  Look at the illustration on page 19. Describe what a flood is.  Pages 20-21  Teacher explains what a thunderstorm is while rereading pages 20 and 21.  Page 22  How is a rainbow formed? | Drizzle: light rain  Shower: steadier rain  Rainstorm: heavy rain  A flood is an overflowing of water on land.  A rainbow is formed when sunbeams shine through drops of rain. The light breaks into seven colors. |
| **Seventh Reading: Pages 23-29**  Page 23  How are snow crystals formed?  Students create a snowy day scene using black construction paper and colored chalk. Draw what you like to do on a snowy day. Write about your drawing.  Name and explain the different ways snow can fall.  Page 25  Teacher explains what hail is to the students.  Pages 26-29.  Read pages 26-29 to students. Have the students watch the videos on hurricanes and tornados, and write what they learned about hurricanes and tornados.  <http://www.youtube.com/watch?v=FbXvj1mgPdA>  <http://www.youtube.com/watch?v=4f45jA5UxB0> | Snow crystals are formed when water freezes inside of clouds.  Snow falls to earth in different ways. Flurries are when snow falls lightly. A snowstorm is when it snows a lot and can be windy. Sleet is snow that melts and refreezes before it hits the ground. A normal snowfall occurs when there is little or no wind. A blizzard is very heavy snow that becomes deeper and deeper and the wind howls.  Hail is water vapor that freezes onto ice crystals in layers. When it becomes heavy enough, they fall as hailstones.  A hurricane is a spiral shaped windstorm that comes from the tropics. A tornado is a funnel-shaped windstorm that twists as hot air spins upward. |

FINAL DAY WITH THE BOOK - Culminating Task

* Select **three** of the weather words from the list: temperature, air pressure, wind, clouds, rain, snow, dew and frost. Write an explanation of each word, in your own words, using illustrations and evidence from the text. (Teacher Note: Remind students that they can use the weather charts in the classroom to help them complete the task)
  + Temperature is how the air feels outside. The position of the sun causes the temperature to change. When the sun rises, the air becomes warmer. When the sun is high in the sky, the days are longer and warmer. In the winter, the sun is low in the sky. The days are colder and shorter. Air pressure is the force produced from the weight of the air pressing down on the earth. High pressure is when the air is usually cool and dry. That is considered a fair day. Low pressure is when the air particles are farther apart and the air is usually warm and moist. These are often bad weather days. Rain forms when clouds are heavy with water vapor. The tiny water drops join and become bigger. When they are heavy enough, they fall. Sometimes it rains just a little. That is called a drizzle. A shower is a brief rainfall while a rainstorm is where there is lots of rain and wind. This can cause a flood. Thunderstorms are rainstorms accompanied by thunder and lightning.

Vocabulary

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| **These words merit less time and attention**  (They are concrete and easy to explain, or describe events/  processes/ideas/concepts/experiences that are familiar to your students ) | **These words merit more time and attention**  (They are abstract, have multiple meanings, and/or are a part  of a large family of words with related meanings. These words are likely to describe events, ideas, processes or experiences that most of your student will be unfamiliar with) |
| Weather (page 1)- how it feels and looks outside  Forecast (page 1)- what the weather will be like  Dew (page11)-moisture on the ground in the morning  Drizzle (page 18)- light rain  Flood (page 19)- too much water for the ground to soak up  Flurries (page 24)- light snow fall  Sleet (page 24)- snow that melts and freezes before it falls  Gusty (page 26)- strong wind | Temperature (page 2) –how the air feels  Moisture (page 2)- water  Air pressure (page 3) – force from the air pressing on the earth  Evaporates (page 4) –liquid turns to gas, dries up  Humid (page 10)-lots of moisture (water) in the air  Frost (page 11)- frozen dew  Vapor (page 12)-gas from water evaporating  Fair (page 13)-nice weather, not too hot, not too cold, mild  Cumulus clouds (page 13)- puffy, fair weather clouds  Cirrus clouds (page 13) –highest clouds, fair weather  Stratus clouds (page 13)- low, gray storm clouds  Fog (page 16)- cloud close to the earth  Blizzard (page 24)-heavy snow  Hail (page 25)- frozen rain  Hurricane (page 27)- spiral shaped wind storm  Gale (page 27)- strong wind  Tornado (page 27)- funnel-shaped windstorm that twists  Front (page 28)-air between two air masses |

Extension learning activities for this book and other useful resources

1. Teacher provides different weather reports from newspapers or the internet. Explain what a meteorologist does and inform students they will pretend to be meteorologists. Provide students with index cards to create a weather report which they will present to the class. Encourage students to create props (for example, illustrations of rainy day, thunderstorm, and sunny weather) for their presentation. *Note: This is particularly supportive of English Language Learners.*
2. Students will create a calendar to record and analyze the weather. <https://www.teachervision.com/tv/printables/scottforesman/Sci_K_TOP_C2_3.pdf>
3. Choose one of the following activities to create a rainbow with students. Students can explain in writing how a rainbow is formed. <http://www.wikihow.com/Make-a-Rainbow#Water_Glass_Method>
4. Create a class anemometer. Have students measure the wind speed.

<http://www.sercc.com/education_files/anemometer.pdf>

Note to Teacher

This book does not have any page numbers. The first page begins with the text, “The weather changes from day to day….”

Day two and day six activities (experiment and mobile) will require advanced preparation.

**What Makes This Read-Aloud Complex?**

1. **Quantitative Measure**

Go to <http://www.lexile.com/> and enter the title of your read-aloud in the Quick Book Search in the upper right of home page. Most texts will have a Lexile measure in this database.

Most of the texts that we read aloud in K-2 should be in the 2-3 or 4-5 band, more complex than the students can read themselves.

2-3 band 420-820L

4-5 band 740-1010L

\_\_450L\_\_\_\_\_\_

1. **Qualitative Features**

Consider the four dimensions of text complexity below. For each dimension\*, note specific examples from the text that make it more or less complex.

This informational text explores all the elements that weather is made up of (i.e. temperature, moisture, air pressure, moisture and humidity).

Each page of the text focuses on a specific weather concept with the corresponding illustration. For example the pages that explain the different types of clouds (Cumulus and Cirrus) have pictures of these clouds.

The entire text contains many science/ specific vocabulary that students may not be familiar with (e.g. high pressure, low pressure, frost, evaporates and water vapor).

Most students will need to build background knowledge on some of the weather elements.

**Structure**

**Meaning/Purpose**

**Language**

**Knowledge Demands**

\*For more information on the qualitative dimensions of text complexity, visit <http://www.achievethecore.org/content/upload/Companion_to_Qualitative_Scale_Features_Explained.pdf>

1. **Reader and Task Considerations**

*What will challenge my students most in this text? What supports can I provide?*

* The domain specific vocabulary will be a challenge for the students. Supports will include repeated readings, three dimensional examples, videos on weather and weather reports.
* Opportunities to draw illustrations to show understanding of complex weather concepts will be provided.

*How will this text help my students build knowledge about the world?*

* Through exploration of this text students will build on the basic knowledge they already have about the weather. They will learn how key weather patterns like rain, snow and hail function as a complete cycle.

1. **Grade level**

What grade does this book best belong in? Second grade

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**Four- Square Vocabulary Activity**

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| 1. **Target Word**   **Dew** | 1. **Examples of concept**   **The grass was wet with morning dew.** |
| 1. **Child friendly definition Moisture that collects on different things at night.** | 1. **Examples of what it is not**   **It is not fog.** |

(Adapted from teaching Word Meanings by Stahl)