

## **Expert Pack: Wild Weather**

Submitted by: Washoe County School District, NV

Grade: K-2

Date: May 2015

<b>Topic/Subject</b> Wild Weather
<p style="text-align: center;"><b>Texts/Resources</b></p> <p>Book(s)</p> <ol style="list-style-type: none"><li>1. <i>Extreme Nature: Wild Weather</i></li><li>2. <i>Reading Essentials: Wild Weather</i></li><li>3. <i>Weather Patterns</i></li></ol> <p>Article(s)</p> <ol style="list-style-type: none"><li>1. "After Hurricane Katrina, Read for Relief"</li><li>2. "Extreme Weather"</li><li>3. "Roy Sullivan Struck by Lightning 7 Times"</li></ol> <p>Other Media</p> <ol style="list-style-type: none"><li>1. Hurricane [Animation with Text]</li><li>2. "Storms" [Video]</li><li>3. Tornadoes [Video with Text]</li><li>4. "Water Cycle" and "Thunder and Lightning" [Songs]</li><li>5. Weebly [Interactive Website]</li></ol> <p>Each expert pack contains a variety of selections grouped to create as coherent and gradual a learning process for students as possible, generally beginning with lower levels as measured by quantitative and qualitative measures, and moving to more complex levels in the latter selections. This graduated approach helps support students' ability to read the next selection and to become 'experts' on the topic they are reading about.</p> <p><i>Refer to annotated bibliography on the following pages for the suggested sequence of readings.</i></p>
<p style="text-align: center;"><b>Rationale and suggested sequence for reading:</b></p> <p>The first video, "Storms", introduces students to wild weather in a fun and engaging manner. The next resource, <i>Wild Weather</i>, gives students a good amount of knowledge and introduces them into wild weather vocabulary. The songs "Water Cycle" and "Thunder and Lightning" give students common vocabulary to connect with upcoming resources. The next two resources, <i>Wild Weather</i> and <i>Weather Patterns</i>, build more knowledge and vocabulary for students. Next, the article on Roy Sullivan is a human interest story that takes students out of the textbook-type informational text and will help them make a personal connection to the informational text. The "Weebly" interactive site gives students some hands-on experience with the weather information that they have been reading about. Further, the article "Extreme Weather" brings students back into text and exposes them to a lot of information at a high, challenging level. The video "Tornadoes" and the interactive "Hurricanes" allows students to work with information that they have been reading and experiencing so far in the text set. Finally, the article, "Read for Relief" allows students to read about students who have done something for victims of the weather patterns that they have been reading about.</p>

### The Common Core Shifts for ELA/Literacy:

1. Regular practice with complex text and its academic language
2. Reading, writing and speaking grounded in evidence from text, both literary and informational
3. *Building knowledge through content-rich nonfiction*

Though use of these expert packs will enhance student proficiency with most or all of the Common Core Standards, they focus primarily on Shift 3, and the highlighted portions of the standards below.

**College and Career Readiness Anchor Standards for Reading Literary and/or Informational Texts** (*the darkened sections of the standards are the focus of the Expert Pack learning for students*):

1. ***Read closely to determine what the text says explicitly and to make logical inferences from it;*** cite specific textual evidence when writing or speaking to support conclusions drawn from the text.
2. ***Determine central ideas or themes of a text and analyze their development;*** summarize the key supporting details and ideas.
10. **Read and comprehend complex literary and informational texts independently and proficiently**

### Annotated Bibliography and suggested sequence for reading

#### **N/A “Storms”**

Author: Unknown

Genre: Informational video

Length: 23:10

Synopsis: Science personality, Bill Nye, teaches about storms in an informative way through the lens of “The Wizard of Oz.”

Citation: Nye, Bill. (n.d.). Storms [Video file] Retrieved April 19, 2015, from

<https://www.youtube.com/watch?v=h7US1JSqsPg>

Cost/Access: \$0.00 YouTube <https://www.youtube.com/watch?v=h7US1JSqsPg>

Recommended Student Activities: Wonderings

#### **500L Wild Weather**

Author: Ben Smith

Genre: Informational

Length: 24 pages

Synopsis: Graphics and photos illustrate the weather during a thunderstorm, hurricane, and tornado. Also presents the causes of thunderstorms, hurricanes, and tornadoes.

Citation: Smith, Ben (2006). *Wild Weather*. Logan, IA: Perfection Learning.

Cost/Access: \$6.39 for paperback and \$16.95 for library binding

Recommended Student Activities: Quiz Maker

**N/A “Water Cycle” and “Thunder and Lightning” Songs**

Author: Meish Goldish (Water Cycle), unknown (Thunder and Lightning)

Genre: Poetry, music

Length: 67 words (Water Cycle), 86 words (Thunder and Lightning)

Synopsis: Two songs to the tunes of familiar songs, present information on the water cycle and thunder and lightning.

Citation: *Can Teach*. (n.d.). Retrieved April 19, 2015, from  
<http://www.canteach.ca/elementary/songspoems17.html>

Cost/Access: \$0.00 <http://www.canteach.ca/elementary/songspoems17.html>

Recommended Student Activities: A Picture of Knowledge

**680L *Wild Weather***

Author: Anita Ganeri

Genre: Informational

Length: 32 pages

Synopsis: This book gives students examples of extreme weather. It looks at what happens with lightning, tornadoes, and hurricanes.

Citation: Ganeri, Anita. (2013). *Wild Weather*. Chicago, IL: Raintree.

Cost/Access: \$6.83 for paperback and \$29.32 for library binding

Recommended Student Activities: “What am I” quiz included with text on pages 28-29.

**725L *Weather Patterns***

Author: Monica Hughes

Genre: Informational

Length: 32 pages

Synopsis: This book helps students understand various natural phenomena and weather patterns the world over. Using many examples, the book looks at patterns and cycles in nature.

Citation: Hughes, Monica. (2004). *Weather Patterns*. Chicago, IL: Heinemann Library.

Cost/Access: \$7.99 and \$26.00 for library binding

Recommended Student Activities: A Picture of Knowledge

**980L “Roy Sullivan Struck by Lightning 7 Times”**

Author: unknown

Genre: Internet article, human interest

Length: 698 words

Synopsis: Human interest story about Roy Sullivan, a National Park worker, who was hit by lightning 7 times. It is suggested teachers do not show the last paragraph about how he died.

Citation: *Roy Sullivan Struck by Lightning 7 Times*. (2012, October). Retrieved February 26, 2015, from <http://www.weatherimagery.com/blog/roy-sullivan-struck-by-lightning-7-times/>

Cost/Access: \$0.00 <http://www.weatherimagery.com/blog/roy-sullivan-struck-by-lightning-7-times/>

Recommended Student Activities: Wonderings

**N/A “Weebly Interactive Learning Site”**

Author: N/A

Genre: Interactive learning website

Length: N/A

Synopsis: This website will take students through different games and interactive games to learn more about different weather patterns.

Citation: Weebly Science, Seasons and Weather. (n.d.). Retrieved February 26, 2015, from [www.interactivesites.weebly.com](http://www.interactivesites.weebly.com)

Cost/Access: \$0.00 [www.interactivesites.weebly.com](http://www.interactivesites.weebly.com) When on the website, click on the “Science” tab in the middle of the screen. Then click on “Seasons and Weather”.

Recommended Student Activities: Activity-based website.

**1100L “Extreme Weather”**

Author: Peter Miller

Genre: Informational

Length: 3646 words

Synopsis: This internet article teaches students about extreme weather and happenings across the U.S.

Citation: *Extreme Weather*. (Sept. 2012). Retrieved February 26, 2015, from <http://ngm.nationalgeographic.com/2012/09/extreme-weather/miller-text>

Cost/Access: \$0.00 <http://ngm.nationalgeographic.com/2012/09/extreme-weather/miller-text>

Recommended Student Activities: Quiz Maker

**N/A “Tornadoes”**

Author: N/A

Genre: Informational video with text

Length: N/A

Synopsis: This video has text to help students explore the 1 mile-wide EF5 tornado that moved through Tuscaloosa, Alabama on April 27th, 2011.

Citation: Tornadoes. (n.d.). Retrieved February 26, 2015, from <http://www.exploringweather.com/tornadoes.html>

Cost/Access: \$0.00 <http://www.exploringweather.com/tornadoes.html> This link will take you directly to the “Tornadoes” section of the website. This activity is meant to focus on tornadoes, though there are other sections on extreme weather.

Recommended Student Activities: A Picture of Knowledge

**N/A “Hurricane”**

Author: N/A

Genre: Animation with text

Length: N/A

Synopsis: This animation takes students through a hurricane. Text is provided.

Citation: Hurricane. (n.d.). Retrieved February 26, 2015, from [www.cbsnews.com/htdocs/natural\\_disasters/hurricanes/hurricanes101.swf](http://www.cbsnews.com/htdocs/natural_disasters/hurricanes/hurricanes101.swf)

Cost/Access: \$0.00 [www.cbsnews.com/htdocs/natural\\_disasters/hurricanes/hurricanes101.swf](http://www.cbsnews.com/htdocs/natural_disasters/hurricanes/hurricanes101.swf)

Recommended Student Activities: Pop Quiz

**910L “After Hurricane Katrina, Read for Relief”**

Author: Rachel Laskow

Genre: Informational internet article

Length: 490 words

Synopsis: Students across the country use books to help hurricane victims.

Citation: Read for Relief. (n.d.). Retrieved February 26, 2015, from <http://teacher.scholastic.com/scholasticnews/indepth/hurricanekatrina/articles/index.asp?article=read&topi c=1>

Cost/Access: \$0.00

<http://teacher.scholastic.com/scholasticnews/indepth/hurricanekatrina/articles/index.asp?article=read&topi c=1>

Recommended Student Activities: Wonderings

## Supports for Struggling Students

By design, the **gradation of complexity** within each Expert Pack is a technique that provides struggling readers the opportunity to read more complex texts. Listed below are other measures of support that can be used when necessary.

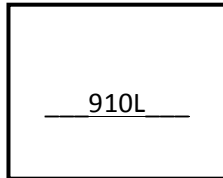
- Provide a brief **student-friendly glossary** of some of the academic vocabulary (tier 2) and domain vocabulary (tier 3) essential to understanding the text
- Download the Wordsmyth widget to classroom computers/tablets for students to access student-friendly definitions for unknown words. <http://www.wordsmyth.net/?mode=widget>
- Provide brief **student friendly explanations** of necessary background knowledge
- Include **pictures or videos** related to the topic within and in addition to the set of resources in the pack
- Select a small number of texts to **read aloud** with some discussion about vocabulary work and background knowledge
- Provide **audio recordings** of the texts being read by a strong reader (teacher, parent, etc.)
- **Chunk the text** and provide brief questions for each chunk of text to be answered *before* students go on to the next chunk of text
- Pre-reading activities that focus on the **structure and graphic elements** of the text
- Provide **volunteer helpers** from the school community during independent reading time.

## Text Complexity Guide

“Read for Relief”, by Rachel Laskow

### 1. Quantitative Measure

Go to <http://www.lexile.com/> and enter the title of the text in the Quick Book Search in the upper right of home page. Most texts will have a Lexile measure in this database. You can also copy and paste a selection of text using the Lexile analyzer.



2-3 band	420 -820L
4-5 band	740 -1010L
6-8 band	925 - 1185L
9 -10 band	1050 – 1335L
11 – CCR	1185 - 1385

### 2. 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.

<p>The purpose of this article is to introduce students to the concept of helping out in a weather crisis. As a culminating piece, this article will give students something to think about and possibly encourage them to help when there is a need. Additionally, this article is meant to give students a firsthand experience of how weather can affect people.</p> <p style="text-align: right;"><b>Meaning/Purpose</b></p>	<p>The structure takes the reader through three different scenarios of students across the country helping out by collecting books after Hurricane Katrina. Photographs and captions support the text.</p> <p style="text-align: right;"><b>Structure</b></p>
<p style="text-align: right;"><b>Language</b></p> <p>The text is short and the sentences are fairly simple. The descriptions are broken up by quotations from the students involved with the collection of books. This is a very readable and enjoyable text for students.</p>	<p style="text-align: right;"><b>Knowledge Demands</b></p> <p>Knowledge and facts of Hurricane Katrina and the severity of the damage are needed.</p>

### 3. Reader and Task Considerations

*What will challenge students most in this text? What supports can be provided?*

- Students could struggle with not having enough background knowledge about Hurricane Katrina. It may be beneficial to provide a brief student-friendly explanation of Hurricane Katrina.
- Pictures or video of Hurricane Katrina would provide knowledge for students while reading this article.
- Pre-reading that focuses on quotations and drawing their attention to the photographs could help students.



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### **Learning Worth Remembering**

**Cumulative Activities** – The following activities should be completed and updated after reading each resource in the set. The purpose of these activities is to capture knowledge building from one resource to the next, and to provide a holistic snapshot of central ideas of the content covered in the expert pack. *It is recommended that students are **required** to complete one of the Cumulative Activities (Rolling Knowledge Journal or Rolling Vocabulary) for this Expert Pack.*

#### **1. Rolling Knowledge Journal**

1. Read each selection in the set, one at a time.
2. After you read *each* resource, stop and think what the big learning was. What did you learn that was new *and important* about the topic from *this* resource? Write, draw, or list what you learned from the text about (topic).
3. Then write, draw, or list how this new resource added to what you learned from the last resource(s).

#### **Sample Student Response**

<b>Title</b>	<b>Write, Draw, or List</b>	
	<b>New and important learning about the topic</b>	<b>How does this resource add to what I learned already?</b>
1. "Storms"	General overview of extreme storms with Bill Nye. Information on weather and storms in particular.	
2. "Wild Weather" Ben Smith	There are many types of wild weather.	Extreme changes in weather affect our lives in which we also saw in Bill Nye's video.
3. "Water Cycle" and "Thunder and Lightning" songs	The Water Cycle, the difference between thunder and lightning. Thunder is heard while lightning is seen.	It helped to solve some wonderings about thunder and lightning and water that weren't shared in the previous texts.
4. <i>Wild Weather</i> Anita Ganeri	Book goes more deeply into the extreme weather. For example, we learn more about lightning, tornadoes, and hurricanes.	This book adds to the information previously read about with extreme weather patterns. Tornadoes are an extreme weather that occurs in the Midwest of the United States.
5. <i>Weather Patterns</i>	Changes in the earth and sky: Weather changes from day to day and over the seasons.	This brings all the patterns of nature and weather, seasons, together. We can see how nature and the seasons affect the weather.
6. "Roy Sullivan Struck by Lightning 7 Times"	This is a human interest story about Roy Sullivan, a man who was struck by lightning 7 times and lived to tell about	Relates back to Wild Weather by Anita Ganeri. Roy was introduced briefly in Wild Weather. This article tells us more about

	it.	him.
7. "Weebly Interactive Learning Site"	Hands-on experiences with different weather patterns such as tornadoes and hurricanes. Interactive games to learn more about weather.	The games teach more about the weather patterns that we have been reading about. There are a lot to choose from and we can even be a weather person.
8. "Extreme Weather"	A very visual first person account of an extreme storm. Real life account.	This article takes one person's experience with a huge rainstorm in Nashville Tennessee.
9. "Tornadoes"	Tornadoes can be extremely damaging and this one that moved through Tuscaloosa, Alabama in 2011 caused a lot of damage	Our previous learning about tornadoes is brought to life in this video. It shows how much damage one large storm caused in a southern town.
10. "Hurricane"	Hurricanes in the Atlantic often begin off of the coast of Africa.	This animation explains that hurricanes often start off the coast of Africa then head west. We learn how hurricanes are formed.
11. "After Hurricane Katrina, Read for Relief"	Students across the country contributed to helping student victims of Hurricane Katrina.	There are examples from across the country of how students helped victims of Hurricane Katrina. One example is that they collected books.

## 2. Rolling Vocabulary: "Sensational Six"

- Read each resource then determine the 6 words from each text that most exemplify the central idea of the text.
- Next use your 6 words to write about the most important idea of the text. You should have as many sentences as you do words.
- Continue this activity with EACH selection in the Expert Pack.
- After reading all the selections in the Expert Pack, go back and review your words.
- Now select the "Sensational Six" words from ALL the word lists.
- Use the "Sensational Six" words to summarize the most important learning from this Expert Pack.

Title	Six Vocabulary Words & Sentences
"Storms"	<p><b>Words: twister, extreme, surface, downpour, soak, barometer</b></p> <p><b>Sentences:</b></p> <ol style="list-style-type: none"> <li>1. A <b>twister</b> rages across Oklahoma, destroying many houses.</li> <li>2. It is an <b>extreme</b> storm that can cause damage if you are caught in one.</li> <li>3. The <b>surface</b> of the earth is affected by many storms.</li> <li>4. If a <b>downpour</b> occurs, you will need to run for cover to keep from getting wet.</li> <li>5. The strong rainstorm can <b>soak</b> your clothes and make you cold.</li> <li>6. When the <b>barometer</b> falls, you can expect a storm to come through your town.</li> </ol>
Wild Weather	<b>Words: hurricane, tornado, hail, roaring, thunder, eye (of a storm)</b>

	<p><b>Sentences:</b></p> <ol style="list-style-type: none"> <li>1. A <b>hurricane</b> causes a lot of wind and rain.</li> <li>2. A <b>tornado</b> is another wild storm that spins and creates a lot of damage.</li> <li>3. <b>Hail</b> bounces off of the cars in the parking lot.</li> <li>4. Many extreme storms sound like the <b>roaring</b> of a tiger.</li> <li>5. The sound of the <b>thunder</b> can keep a family awake at night.</li> <li>6. The <b>eye</b> of a hurricane is calm and quiet.</li> </ol>
“Water Cycle” and “Thunder and Lightning” songs	<p><b>Words: lightning, electric spark, frightening, wonder, expands, rumble</b></p> <p><b>Sentences:</b></p> <ol style="list-style-type: none"> <li>1. When <b>lightning</b> flashes, it is unsafe to be outside.</li> <li>2. An <b>electric spark</b> flashes with lightning.</li> <li>3. Storms can be <b>frightening</b> because of high winds, loud noises, and bright flashes of light.</li> <li>4. Sometimes storms can be so beautiful that we stand in <b>wonder</b>.</li> <li>5. Warm air <b>expands</b> the molecules in the air, causing the pressure to drop.</li> <li>6. Then there can be a <b>rumble</b> in the air meaning there is thunder.</li> </ol>
<i>Wild Weather</i> Anita Ganeri	<p><b>Words: storm shelter, Tornado Alley, blizzard, floods, heat wave, drought</b></p> <p><b>Sentences:</b></p> <ol style="list-style-type: none"> <li>1. A family may need to run into their <b>storm shelter</b> to stay safe from a tornado.</li> <li>2. Kansas is a state in <b>Tornado Alley</b>.</li> <li>3. A <b>blizzard</b> can cover an entire town with deep snow.</li> <li>4. When snow melts, there can be <b>floods</b>.</li> <li>5. It is important to keep cool during a <b>heat wave</b>.</li> <li>6. There may be a lack of water to keep cool during a <b>drought</b>.</li> </ol>
<i>Weather Patterns</i>	<p><b>Words: tropical, season, pattern, equator, climate, predict</b></p> <p><b>Sentences:</b></p> <ol style="list-style-type: none"> <li>1. A lot of plants grow well in a <b>tropical</b> climate.</li> <li>2. During the spring <b>season</b> we saw a lot of rain.</li> <li>3. When there is a lot of moisture, we are in a wet weather <b>pattern</b>.</li> <li>4. As you get closer to the <b>equator</b>, the weather gets warmer.</li> <li>5. The <b>climate</b> at the equator is warm and wet.</li> <li>6. The weatherman can <b>predict</b> the weather using a computer.</li> </ol>
“Roy Sullivan Struck by Lightning 7 Times”	<p><b>Words: strike, searing, wounded, ranger, National Park, arced</b></p> <p><b>Sentences:</b></p> <ol style="list-style-type: none"> <li>1. A lightning <b>strike</b> can hit a tree branch and break it in half.</li> <li>2. When the lightning hit the tree it left a <b>searing</b> mark on the trunk.</li> <li>3. When the lightning struck the man, it <b>wounded</b> his foot.</li> <li>4. The <b>ranger</b> at the park helped us find the hiking trail.</li> <li>5. We spent our summer vacation at Yellowstone <b>National Park</b>.</li> <li>6. The lightning <b>arced</b> across the sky.</li> </ol>
“Extreme Weather”	<p><b>Words: meteorologist, predicting, forecast, broadcasts, colleagues, flash flood</b></p> <p><b>Sentences:</b></p>

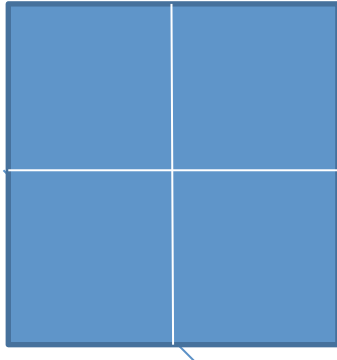
	<ol style="list-style-type: none"> <li>1. A <b>meteorologist</b> is someone on TV who reports the weather.</li> <li>2. He uses a computer and satellites to help him with <b>predicting</b> the weather.</li> <li>3. He gives us the daily <b>forecast</b> of what our expected weather is.</li> <li>4. The news station <b>broadcasts</b> the daily weather report.</li> <li>5. The reporters work together and are called <b>colleagues</b>.</li> <li>6. Sometimes if a lot of water is running over the banks of the river, the news station will call it a <b>flash flood</b> warning.</li> </ol>
"Tornadoes"	<p><b>Words: violent, vertical, tremendous, rotating, updraft, vortex</b></p> <p><b>Sentences:</b></p> <ol style="list-style-type: none"> <li>1. A <b>violent</b> storm can be very dangerous.</li> <li>2. The tornado is a <b>vertical</b> storm, meaning it goes from up and down from the sky to the ground.</li> <li>3. The storm can have <b>tremendous</b>, very strong winds.</li> <li>4. The winds are <b>rotating</b>, turning in a circle.</li> <li>5. There can be a big <b>updraft</b>, or upward movement of air in the tornado.</li> <li>6. It can also form a fast, spinning <b>vortex</b> that will pull objects into its center.</li> </ol>
"Hurricane"	<p><b>Words: hemisphere, unstable, converges, condenses, atmosphere, devastating</b></p> <p><b>Sentences:</b></p> <ol style="list-style-type: none"> <li>1. Storms can happen in either half, or <b>hemisphere</b>, of the earth.</li> <li>2. <b>Unstable</b>, changing air creates conditions for storms.</li> <li>3. When the unstable air meets, or <b>converges</b>, storms are created.</li> <li>4. Water vapor <b>condenses</b> and becomes water, which then turns into rain or snow.</li> <li>5. The water condenses in the <b>atmosphere</b> above the earth.</li> <li>6. Wild weather can be <b>devastating</b> if it destroys homes and crops.</li> </ol>
"After Hurricane Katrina, Read for Relief"	<p><b>Words: participated, victims, collect, pledges, routine, donate</b></p> <p><b>Sentences:</b></p> <ol style="list-style-type: none"> <li>1. Many students <b>participated</b> in gathering items for the kids affected by Hurricane Katrina.</li> <li>2. The <b>victims</b>, children and their families, of the hurricane lost most of their belongings in the storm.</li> <li>3. The students figured out what to <b>collect</b>, such as clothes and food.</li> <li>4. They also gathered money, called <b>pledges</b>, promised by organizations.</li> <li>5. Many of the students in the hurricane were unable to keep the same <b>routine</b> of going to school every day.</li> <li>6. It was important for the students to <b>donate</b> their time and belongings to help the victims of the hurricane.</li> </ol>
Sensational Six	<b>strike, tremendous, hurricane, tornado, lightning, extreme</b>
<p><b>Summary:</b></p> <p>Wild storms can <b>strike</b> anywhere. An example of a very rainy storm that brings a <b>tremendous</b> amount of rain and wind is a <b>hurricane</b>. A <b>tornado</b> can easily tear a town apart, scattering livestock and houses. It is important to be safe during storms, and <b>lightning</b> is no exception. Everyone should seek shelter and stay safe from <b>extreme</b> storms.</p>	

### Learning Worth Remembering

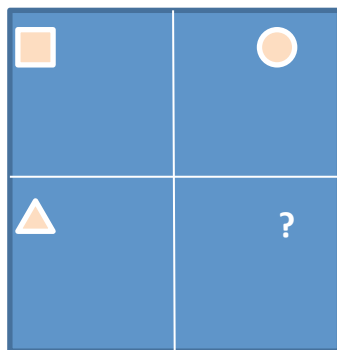
**Singular Activities** – the following activities can be assigned for each resource in the set. The purpose of these activities is to check for understanding, capture knowledge gained, and provide variety of ways for students to interact with each individual resource. Students may complete some or none of the suggested singular activities for each text. Singular activities should be assigned at the discretion of the teacher.

#### 1. A Picture of Knowledge - “Water Cycle” and “Thunder and Lightning” Songs, *Weather Patterns*, “Tornadoes”

- Take a piece of paper and fold it two times: once across and once top to bottom so that it is divided into 4 quadrants.



- Draw these shapes in the corner of each quadrant.



- Square
- Triangle
- Circle
- Question Mark

#### 3. Write!

Square:	What one thing did you read that was interesting to you?
Triangle:	What one thing did you read that taught you something new?
Circle:	What did you read that made you want to learn more?
Question Mark:	What is still confusing to you? What do you still wonder about?

- Find at least one classmate who has read [selection] and talk to each other about what you put in each quadrant.

#### 2. Quiz Maker - *Wild Weather*, “Extreme Weather”

- Make a list of # questions that would make sure another student understood the information.
- Your classmates should be able to find the answer to the question from the resource.

- Include answers for each question.
- Include the where you can find the answer in the resource.

Question	Answer
1.	
2.	
3.	

**3. Wonderings - “Storms”, “Roy Sullivan Struck by Lightning 7 Times” and “After Hurricane Katrina, Read for Relief”**

On the left, track things you don’t understand from the article as you read.

On the right side, list some things you still wonder (or wonder now) about this *topic*.

I'm a little confused about:	This made me wonder:

#### 4. Pop Quiz "Hurricane"

Answer the following questions.

Question	Answer
1. Describe the Intertropical Convergence Zone.	1. The trade winds from the Northern and Southern hemispheres meet to create storms. Hurricanes take shape over sections of water that are at least 80F and 200F in depth.
2. What is the difference among a tropical depression, tropical storm, and a hurricane?	2. The speed of the winds increases with each stage.
3. Why does a hurricane weaken as it travels over land?	3. It loses its source of heat and moisture (the ocean).

### Expert Pack: Wild Weather

Submitted by: Washoe County School District, NV

Grade: K-2

Date: May 2015

#### Expert Pack Glossary

##### **Wild Weather, Ben Smith**

<i>Word</i>	<i>Student-Friendly Definition</i>
Rumble	A low continuous sound. A rumble was heard coming from the sky as a storm came closer.
Wild	Not being under control; dangerous. The weather turned wild as the rain started to come down on us.
Hail	Pieces of ice that fall from clouds sometimes during thunderstorms. During the storm, large pieces of hail looked like ping pong balls falling from the sky.
Sea	The salt water that covers most of the Earth; the oceans. During the hurricane, the ship was tossed about on the sea, and waves crashed against it.
Damage	A loss or harm caused by injury to one's person or property. After a tornado, families return home to see how much damage there is to their houses.
Gulf of Mexico	A part of the Pacific Ocean extending into Mexico's shore land. After a long voyage, the ship arrived in the Gulf of Mexico and was ready to dock.
Jumbo jet	A very large airplane that can carry many passengers. When I traveled to Hawaii, I flew on a jumbo jet with many seats.

##### **"Water Cycle" and "Thunder and Lightning" songs**

<i>Word</i>	<i>Student-Friendly Definition</i>
Lightning	The very bright flashes of light in the sky that happen during thunderstorms. I could see the lightning flash through my window during last night's storm.
Wonder	A feeling of great surprise and pleasure that you have, for example when you see something that is very beautiful, or when something happens that you thought was impossible. When I saw the beautiful rainbow after the storm, I felt a sense of wonder.
Expands	When something becomes larger. As I blew air into the balloon, it began to expand and get larger.

##### **Wild Weather, Anita Ganeri**

<i>Word</i>	<i>Student-Friendly Definition</i>
Blizzard	A severe snowstorm. During the blizzard, all I could see was white snow falling outside my window.
Drought	Time of very dry weather when there is very little or no rain. Due to lack of water, many plants and animals die during a drought.
Dust Storm	Storm with strong winds and swirling dust. During the dust storm, wind and dirt smacked against the windows of my car.



Flood Alert	Warning given to people to tell them that floods are likely. When I heard the flood alert on the TV, I knew it was time to leave my house; the flood waters were getting too high and dangerous.
Hailstone	Ball of hard ice that falls from a thundercloud. During the storm, large hailstones the size of golf balls fell from the sky
Heat Wave	Stretch of very hot weather. On the tenth day of the heat wave, people wished for rain and cooler weather.
Hurricane	Giant spinning storm. All of the ships were told to come to shore before the hurricane; it would be too dangerous for them to be at sea.
Lightning Rod	Metal rod that catches lightning and carries it down safely to the ground. I was thankful that the lightning struck the lightning rod rather than any houses on my street.
Thundercloud	Huge black cloud. It is called a cumulonimbus cloud. As the storm approached, I could see the dark thundercloud moving in.
Tornado	Violently spinning twist of wind. The wind of the tornado was so strong that it picked up cars and parts of buildings.

### ***Weather Patterns***

<i>Word</i>	<i>Student-Friendly Definition</i>
Nature	The physical world and everything in it (such as plants, animals, mountains, oceans, and stars) that is not made by people. I love being in the forest with all of nature surrounding me.
Temperature	The degree of hotness or coldness as shown by a thermometer. The temperature was so hot outside that the sidewalk burned my feet as I walked with no shoes.
Climate	The usual weather conditions of a particular place or region. It is very important to check the climate of a particular state before you move there; you want to make sure you like the type of typical weather.
Sun rays	Lines of light from the sun. I could see the sun rays shining through small clear patches in the cloudy sky.
Equator	An imaginary circle around the Earth that is equally distant from the north and south poles. Along the equator, or the center ring around the Earth, it is very hot and rainy.
Angle	A figure formed by two lines extending from the same point. The angle of the sun made our shadows look huge.
Mild	No too hot or too cold; pleasantly warm. The weather was not too hot or too cold yesterday; it was mild and perfect for being outside.
Common	Occurring or appearing frequently. It is common to have windy days in the spring; it is the perfect season for flying a kite.
Predict	To say that something will or might happen in the future. Since the sky is filling with thunderclouds, I predict we will have rain tonight or tomorrow.

### ***“Roy Sullivan Struck by Lightning 7 Times”***

<i>Word</i>	<i>Student-Friendly Definition</i>
Strike	If something that is falling or moving strikes something, it hits it. They went inside so they lightning would not strike them.
Searing	Burning, indicates that something such as pain or heat is very intense. The hot sun was searing her skin.
Ranger	A ranger is a person whose job is to look after a forest or large park. The

	park ranger showed us where we could camp in the park.
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### **“Extreme Weather”**

<i>Word</i>	<i>Student-Friendly Definition</i>
Forecast	A statement saying what the weather will be like the next day or for the next few days. In the forecast, the weatherman said it would rain on Tuesday.
Flash Flood	A sudden rush of water over dry land, usually caused by a great deal of rain. The flash flood washed away the small trees.
Tributary	A stream or river that flows into a larger one.
Skiff	A small light rowing boat or sailing boat, which usually has room for only one person. The man rowed the skiff across the lake.
Meteorologist	A person who studies the processes in the Earth’s atmosphere that cause particular weather conditions, especially in order to predict the weather. The meteorologist predicted that it would snow on Monday.
Colleagues	The people you work with. My colleagues and I will go to lunch after our meeting.
Broadcasting	The making and sending out of television and radio programs. They were broadcasting the football game on TV.
Barge	A long, narrow boat with a flat bottom. Barges are used for carrying heavy loads, especially on rivers and canals. The barge carried the tree trunks across the river.
Canoe	A small, narrow boat that you move through the water using a stick with a wide end called a paddle. My dad taught me how to paddle the canoe across the pond.
Submerged	Below the surface of some water. The tree trunks were submerged in the lake.

### **“Tornadoes”**

<i>Word</i>	<i>Student-Friendly Definition</i>
Downdraft	A strong downward rush of air that cause damaging winds. The downdraft caused problems for the people fighting the forest fire.
Horizontal	Something that is flat and level with the ground, rather than at an angle to it. When we lie down to go to sleep, we are horizontal.
Hurl	To throw something violently and with a lot of force. The little boy tried to hurl the stick.
Rotating	To turn in a circular motion. The spinning top was rotating on the table.
Tremendous	A word that describes how large something is. The elephant’s footprint was tremendous.
Updraft	Upward movement of air. The balloon got stuck in the updraft and floated away.
Uproot	When something, like a tree, is pulled out of the ground. The wind was strong enough to uproot the small trees.
Vertical	Something that stands or points straight up. The tree was vertical to the ground.
Violent	Something that is felt very strongly. The bear gave the tree a violent shake to make the apples fall.
Vortex	A mass of wind or water that spins around so fast that it pulls objects down

	into its empty center. The vortex spun over the ocean.
Waterspout	A tornado occurring over water. While we were fishing we saw a waterspout in the middle of the lake.

### **“Hurricane”**

<i>Word</i>	<i>Student-Friendly Definition</i>
Animation	A film in which drawings or puppets appear to move. A cartoon is an animation.
Hemisphere	One half of the earth. Australia is in the southern hemisphere.
Converge	Where something meets, or comes together. The animals began to converge in the middle of the forest.
Unstable	When something can change very suddenly. The weather is unstable, it could begin to rain any second.
Condenses	When a gas or vapor changes into a liquid. The hot steam condenses on the shower door.
Atmosphere	The layer of air or other gases around a planet. The clouds are up in the atmosphere.
Devastating	Something that is very harmful or damaging. The winds were devastating the trees.
Counterclockwise	Moving in the opposite direction to the direction in which the hands of a clock move. The children moved counterclockwise in a circle.
Storm surge	A sudden powerful movement of water. The beach was being ruined by the storm surge.
Disempowering	To take away power. The queen was disempowering the village people.

### **“After Hurricane Katrina: Read for Relief”**

<i>Word</i>	<i>Student-Friendly Definition</i>
Collect	To bring things together from several places or from several people. The little boy liked to collect rocks.
Donate	To give something to someone. I will donate my books to the school library.
Pledge	If you pledge a sum of money to an organization or activity, you promise to pay that amount of money to it at a particular time or over a particular period. I pledge to pay \$2.00 every month to help keep our playground clean.
Victim	Someone who has been hurt or killed. The little bear was a victim of the forest fire.
Routine	The usual series of things that you do at a particular time. My morning routine is to wash my face, comb my hair, and brush my teeth before I leave for school.