



Source of image: <http://www.clker.com/clipart-inclement-weather.html>

# Severe Weather in TN

A Two-Week Thematic Unit/Integrated Learning Segment for Kindergarten

*“Explain the purpose of weather forecasting to prepare for, and respond to, severe weather in Tennessee”*

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ECED 4450 Spring 2018 class

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## Introduction and Rationale (a)

The 2-week unit will focus on severe weather in Tennessee, specifically how we can prepare for this weather. Children will explore the different types of weather and what we should do to prepare for it. This topic is appropriate for children of this age because they already make observations about the weather, dress accordingly, and relate their daily activities to weather. By the end of the unit, children will be able to describe many types of severe weather in Tennessee in depth and explain different ways to prepare for those types of weather. The first activity will Engage children through watching a short, exciting video about severe weather and creating an anchor chart to outline the different types of severe weather in Tennessee. The next few activities will have children actively Exploring through recording the weather each day, going into depth with rain, snow, and tornados by completing hands-on activities as well as reading books and exploring appropriate clothing for each type of weather. The children will also Explain their ideas and findings through conducting experiments, discussing, and writing. The class will also Elaborate their explanations by furthering their investigations to reconstruct and extend their thinking. Lastly, the students will Evaluate their own learning of new skills by reviewing and reflecting.

This unit is inquiry-based because I have built in room for children to discover information for themselves about the types of severe weather in Tennessee and how to prepare for this severe weather. For example, I do not tell them that different materials can withstand wind during a tornado better than others, I give children the chance to find out for themselves by exploring these materials when put under wind pressure on their own. Another way I have extended inquiry is by following the 5Es framework in my design to ensure my plans include

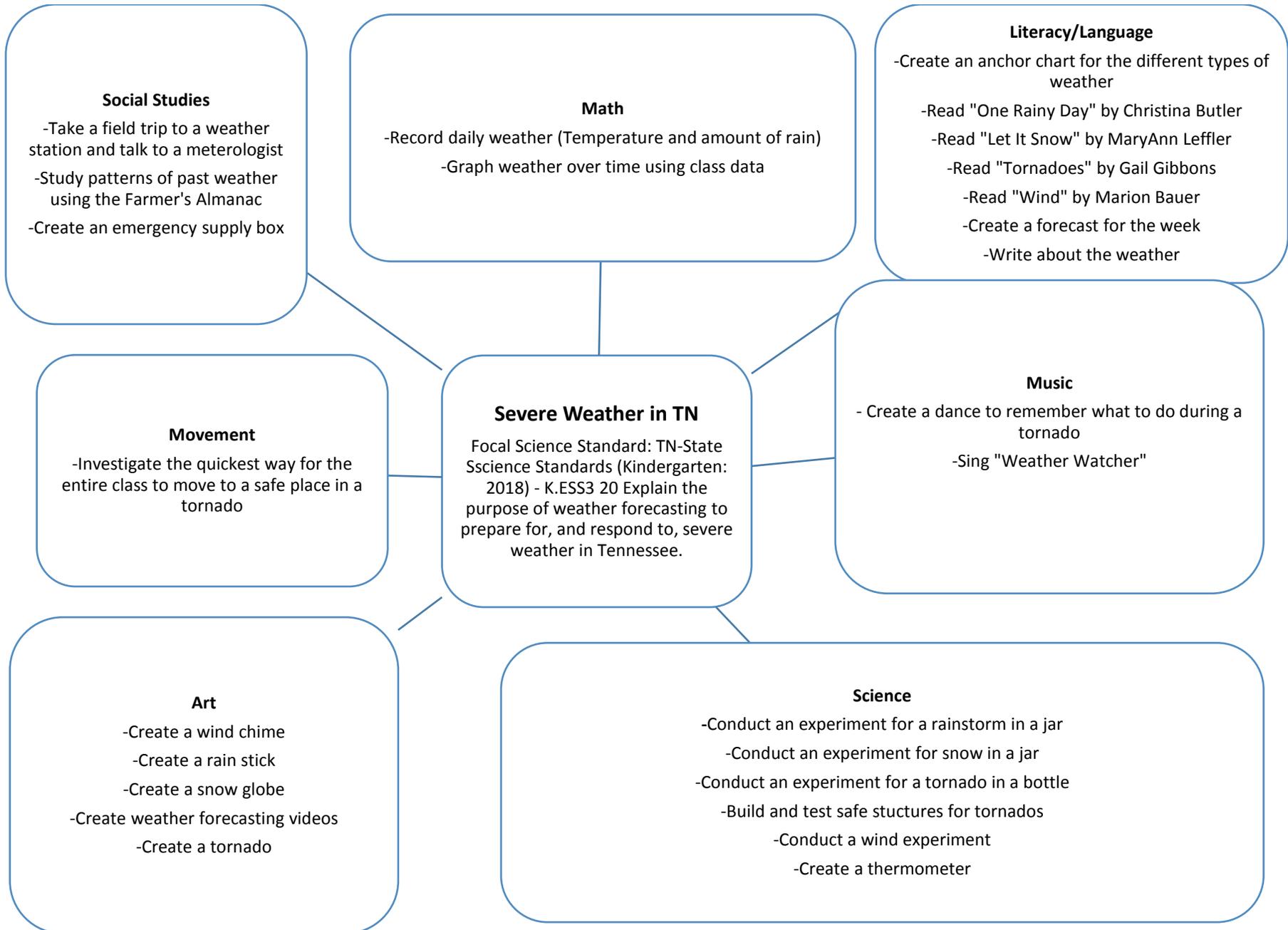
opportunities for deep learning in science ((n.d.). Retrieved April 13, 2018, from <https://nasaclips.arc.nasa.gov/teachertoolbox/the5e>).

## Standard/s Addressed, Goals, and Objectives for the Unit (b)

**Standards addressed.** The primary standard for this unit comes from the TN State Standards for Kindergarten and falls within the Earth and Human Activity section, which involves children being able to “*Explain the purpose of weather forecasting to prepare for, and respond to, severe weather in Tennessee*” (p. 20; TN State Board of Education, 2018).

**Goals.** The goals of this unit are for children to learn key vocabulary (e.g., severe weather, weather forecasting, withstand, tornado, rain, snow) and to be able to describe, dress for, and prepare for severe weather in Tennessee, with an emphasis on tornados based on their experiences prior to and within this unit.

## A Curriculum Web (c)



## Title and Description of Learning Experiences (d)

### Overview

Below I describe the learning experiences over the ten days of the unit. I open with an opportunity for students to engage in the big idea by watching a video about severe weather and creating an anchor chart for the different types of severe weather in Tennessee. Throughout the unit, the students will record the weather daily, sing a weather song daily, and write about the weather daily in a journal. The next few days will have the children actively exploring the types of weather in depth, starting with rain on day two. The students will explore rain by reading a book, conducting a rain in a jar experiment, exploring types of clothes you wear on a rainy day, and creating a rain stick. On the third day, the students will discuss snow in depth by reading a book about snow, conducting a snow in a jar experiment, exploring types of clothes you wear on a snowy day, and creating a snow globe. The students will explore wind in depth on the fourth day by reading a book about wind, exploring the power of wind with a hairdryer, exploring types of clothes you wear on a windy day, and creating a wind chime. Tornadoes will be explored in depth on the fifth, sixth, and seventh days. This will be done by reading about tornadoes, conducting a tornado in a bottle experiment, watching a tornado video, investigating the quickest and safest way for the class to move to a safe place in a tornado, creating a dance to help remember what to do in a tornado, and experimenting different types of structures against the force of a tornado. On the eighth day the class will discuss forecasting and take a field trip to a new station. The students will create their own forecasts for next week and we will create a news video using those forecasts on the ninth day. Lastly, the students will graph the weather they have been recording each day and compare it to past weather in a Farmer's Almanac.

## Calendar

Week 1 of 2

Schedule	Monday	Tuesday	Wednesday	Thursday	Friday
<b>Free Play/Center/Arrival</b>	Record the weather for the day when arrive	Record the weather for the day when arrive	Record the weather for the day when arrive	Record the weather for the day when arrive	Record the weather for the day when arrive
<b>Welcome/Whole Group</b> books	Severe Weather Video	Read about rain "One Rainy Day" by Christina Butler	Read about snow "Let It Snow" by MaryAnn Leffler	Read about wind "Wind" by Marion Bauer	Read about tornados "Tornadoes" by Gail Gibbons
<b>Small Group</b>	Anchor Chart for types of weather in TN	Rain in a jar Activity	Snow in a jar activity	Exploring wind activity	Tornado in a bottle activity
<b>Transition</b>	Weather Song	Weather Song	Weather Song	Weather Song	Weather Song
<b>Snack</b>					
<b>Free Play/Center Time</b>	Create a thermometer activity	Create a rain stick	Create a snow globe	Create a wind chime	Create a tornado activity
<b>Outdoor Learning/Gross Motor</b>					
<b>Small Group</b>	Write about today's weather in the weather journal	Write about today's weather in the weather journal	Write about today's weather in the weather journal	Write about today's weather in the weather journal	Write about today's weather in the weather journal
<b>Free Play/Outside Departure</b>		Explore types of rain clothes	Explore types of snow clothes	Explore types of wind clothes	Explore safe places to go in a tornado

\* Complete lesson plan

Schedule	Monday	Tuesday	Wednesday	Thursday	Friday
<b>Free Play/Center/Arrival</b>	Record the weather for the day when arrive	Record the weather for the day when arrive	Record the weather for the day when arrive	Record the weather for the day when arrive	Record the weather for the day when arrive
<b>Welcome/Whole Group books</b>	Investigate quickest way to move to safe place in tornado Activity	Emergency Supplies Box Activity	Watch a weather forecast	Create a weather forecast for next week	Collect weather data from recordings and go over
<b>Small Group</b>	Create a dance to help remember what to do in a tornado	*Tornado Structure Activity	Field Trip to news station	*Forecast Videos Activity	Graph Weather using class data
<b>Transition</b>	Weather Song	Weather Song	Weather Song	Weather Song	Weather Song
<b>Snack</b>					
<b>Free Play/Center Time</b>	Tornado Video	Write about today's weather in the weather journal	Field trip to news station	Discuss field trip (weather forecasting)	Compare our weather data to previous weather (Farmer's Almanac)
<b>Outdoor Learning/Gross Motor</b>					
<b>Small Group</b>	Write about today's weather in the weather journal	*Tornado Structure Activity Cont.	Field trip to news station	*Forecast Videos Activity Cont.	Write about today's weather in the weather journal
<b>Free Play/Center/Departure</b>	Explore safe places to go in a tornado cont.		Write about today's weather in the weather journal	Write about today's weather in the weather journal	

\* Complete lesson plan

## **Titles and Descriptions**

### **Week 1**

#### **Day 1**

Create a thermometer activity (adapted from <http://www.jumpstart.com/common/make-your-thermometer>) This activity will be completed on the first day of the unit and will introduce the students to one of the tools they will use everyday during the unit to record the weather in a journal. This activity will be inquiry based because I will not tell the children how to make the thermometer. Instead, we will look and discuss a store-bought thermometer and the children will experiment with different materials and methods to make their thermometers work. We will discuss what worked and did not work and the process each student went through. This activity is mostly science based, but math is also integrated through measuring temperature.

#### **Day 2**

Rain in a jar activity (adapted from <http://www.learnplayimagine.com/2013/03/how-does-it-rain.html>) This activity will be completed on day two of the unit and will be used to introduce students to the concept of rain, which is the main topic for day 2. This relates to the standard because rain can be a type of severe weather in Tennessee. Since most students in Kindergarten already know what rain is, this will help them visualize how it happens. To promote inquiry, I will do the rain in the jar activity with the whole class before discussing the topic. While it is raining in the jar, I will ask the students to explain what they think is happening, they can even take notes if they want or draw pictures to explain their thinking. Then, we will discuss what happened as a group and draw conclusions about rain. This activity is science based, but writing is also integrated when the children take notes or draw their thinking.

### Day 3

Snow in a jar activity (adapted from [http://www.growingajeweledrose.com/2013/12/snow-storm-in-jar\\_9.html](http://www.growingajeweledrose.com/2013/12/snow-storm-in-jar_9.html)) This activity will be completed on the third day of the unit and will be used to introduce students to the concept of snow, which is the main topic for day three. This relates to the standard because it is a type of severe weather in Tennessee. Since most students in Kindergarten already know what snow is, this will help them visualize how it happens. To promote inquiry, I will do the snow in the jar activity with the whole class before discussing the topic. While it is snowing in the jar, I will ask the students to explain what they think is happening, they can even take notes if they want or draw pictures to explain their thinking. Then, we will discuss what happened as a group and draw conclusions about snow. This activity is science based, but writing is also integrated when the children take notes or draw their thinking.

### Day 4

Wind activity (adapted from <http://www.littlegiraffes.com/weather.html>) This activity will be completed on the fourth day of the unit and will be used to introduce the concept of wind, which is the main topic of day four. This relates to the state standard because wind plays a large role in tornadoes, which is the main severe weather type focus for the unit. Therefore, for students to understand tornadoes, they must understand the aspect of wind and its force. As a class, we will make a chart with a side for objects we think the wind will blow and a side for objects we think the wind will not blow. Depending on the weather, these objects can be found outside or in the classroom and students will place them in their category based on their own predictions. After gathering materials, we will test the predictions using a fan and discuss the

force of wind. Students will also write in their science journals about the experiment. This activity is science based, but writing is also integrated when the children write in their journals.

#### Day 5

Tornado in a bottle activity (adapted from <http://homeschoolon.com/how-to-make-a-tornado-in-a-jar/>) This activity will be completed on the fifth day of the unit and will be used to introduce the concept of tornadoes, which will be the main topic for days five, six, and seven. Since the children have probably never seen a tornado, besides videos or books, I think this visual activity will help them understand what one looks like. To promote inquiry, I will do the tornado in the jar activity with the whole class before discussing the topic. While the tornado is funneling in the jar, I will ask the students to explain what they think is happening, they can even take notes if they want or draw pictures to explain their thinking. Then, we will discuss what happened as a group and draw conclusions about tornadoes. This activity is science based, but writing is also integrated when the children take notes or draw their thinking.

Create a tornado activity (adapted from <https://preschool-daze.com/2011/03/26/t-is-for-tornado-4/>) This activity will also be completed on the fifth day of the unit and will be used to strengthen each child's concept of tornadoes, which will be the main topic for days five, six, and seven. This activity is more guided than the others, but it is very important to the unit because it helps children make the connection between tornadoes and wind, which is a major aspect of tornadoes. This activity will actually allow the children to feel the wind coming off the tornado they make. After making the tornadoes and exploring the wind coming off them, we will discuss our findings as a group and draw conclusions about the connections between wind and

tornadoes. After discussion, the children will write about, or draw, their findings, connections, or explanations. This activity is science based, but writing is also integrated.

## **Week 2**

### Day 6

Quickest way to move to a safe place activity (adapted from a class mate) This activity will be completed on the sixth day of the unit and will be used to strengthen each child's concept of tornadoes, which will be the main topic for days five, six, and seven. This activity is a whole class activity, that is very open for inquiry. After discussing the tornado drill and safety measures we take during an emergency while at school, we will investigate the quickest way for the entire class to make it to the safe spot during a tornado. I will use a timer and we will try several of the student's ideas to figure out the fastest way. Each trial will have at least one modification until we reach a desired time. This activity is designed to help children understand how we can prepare for severe weather, specifically tornadoes in the classroom.

### Day 7

Emergency supplies activity (adapted from myself) This activity will be completed on the seventh day of the unit and will be used to strengthen each child's concept of tornado preparedness from the previous activity. This activity is more guided than the others, but it is very important to the unit because it helps children make the connection between tornadoes and being prepared, which is a critical component of the standard. Together, we will make a list of possible items we could add to an emergency supply box and what we would use them for. I will

have some supplies I predict they might bring up on hand, but I will not introduce them unless the children bring the items into the conversation to allow them to lead.

Tornado structure (full lesson plan- see attached below)

Day 8

Day 9

Forecast Videos activity (full lesson plan-see attached below)

Day 10

## Two Complete Lesson Plans (e)

### Complete Lesson Plan #1: Tornado Structures

**Lesson Title: Tornado Science**

**Grade/Level: K Date/Learning Experience #: April 4, 2018**

Curriculum Standards	Essential Question	
<p><i>State Curriculum Standards – Underline your language/vocabulary words</i></p> <p>K.ESS3: 2) Explain the purpose of weather forecasting to prepare for, and respond to, <u>severe weather</u> in Tennessee.</p>	<p><i>What question(s) or big idea(s) related to this lesson drives your instruction? Students should be able to answer this question by the end of the lesson.</i></p> <p>What are the best materials choices to contribute to a strong home design to withstand a tornado?</p> <p>How does choosing construction materials and designing a home help me understand how to be prepared for severe weather in TN?</p>	
Lesson Objective(s) – Student Learning Outcome(s) for this learning experience		
<p><i>Objectives use active verbs, are measureable (if applicable), and link to standards. Consider using Bloom’s Taxonomy or Webb’s Depth of Knowledge.</i></p> <p>Construct a house model using a variety of materials to test the strongest materials to withstand a tornado and complete a writing piece to explain and justify thinking.</p>		
Knowing Your Learners		
<p><i>Describe pre-requisite skills students already know that will help them meet the lesson objective(s). What is your evidence that students need this/these skills(s)? This may include pre-assessment data; student personal, cultural or community assets you have gathered and observations you have made concerning your students.</i></p> <p>Learners need to understand that tornadoes are a type of severe weather in Tennessee. Learners need to understand what a tornado is.</p> <p>Knowledge of these pre-requisite skills was gathered through a previous discussion about severe weather in TN.</p>		
Assessment/Evaluation		
<p><i>How will students demonstrate understanding of lesson objective(s)?</i></p> <p><b>Informal:</b> <i>How will you monitor student progress towards lesson objectives as you are teaching? (formative assessment)</i></p> <p>The student's progress towards lesson objectives will be monitored using anecdotal notes during the discussion and activity.</p>	<p><b>Assessment Modifications</b></p> <p><i>What modifications will you make on assessments/evaluations for students with diverse and/or special needs (i.e. students with IEP or 504,</i></p>	

<p><b>Formal:</b> What evidence (formative and/or summative) will you collect and how will you document student learning/mastery of lesson objective(s)? A summative assessment is not needed for every lesson, however, it is required for every lesson submitted for CAEP data collection points (e.g., 3000 courses – ECED 3210, READ 3100, SPED 3300, PEXS xxxx; 4000 courses – ECED 4680, CUI 4241, SPED 4710, PEXS xxxx, ECED 4780, CUI 4391, SPED 4850, PEXS xxxx).</p>	<p>struggling learners, advanced learners) and will these modifications be within/for small groups or individuals?</p>
<p>Student progress towards objectives will be monitored through a work sample collected from the activity.</p>	<p>Tier two and three students will be given extra time to complete the work sample and activity. Tier three students will also have a chance to revise their work sample (writing piece) after it is graded to practice correct writing.</p>
<p><b>Academic Feedback:</b> The feedback can be both oral and/or written. What strategy/ies will you suggest to move student learning forward? How will feedback promote student understanding of the learning objective? Students will receive academic feedback written on their work sample and meet with the teacher to discuss their work and understanding of the objective. Students will also be given time for think-pair-and share to encourage peer feedback.</p>	

**Theory/Rationale for Assessment/Evaluation:** I am administering/giving/collecting \_\_\_\_\_ because my students need \_\_\_\_\_. This is appropriate because \_\_\_\_\_. Provide citation (APA, 6<sup>th</sup> edition) for theory and/or research.

I am collecting a work sample from a task the children complete because the students need to be evaluated on mastery of the topic. This is appropriate because "good assessment tasks for either instructional or formative assessment purposes" allow children "to demonstrate his or her knowledge, skill, or understanding" (Van de Walle, Lovin, Karp, Williams, 2014, Page 43).

**Academic Language Demands**

**Function and Product of the Lesson** The function is the verb, usually a Blooms verb (e.g., analyze, interpret, recount), that guides the language objective of the lesson. This includes a product that students will either write, say, present, or do that involves Academic Language (e.g. essay, present, recount).

Construct a house model using a variety of materials to test the strongest materials to withstand a tornado and complete a writing piece to explain and justify thinking.

**Academic Vocabulary** What specialized terms and phrases do students need to understand and use to complete the function? These may include terms underlined from the state curriculum standard(s).

- Severe Weather: Dangerous weather  
This is a review term from another lesson on this standard, so this word will be reviewed and will already be displayed on the word wall.

**Content Vocabulary** What are the key vocabulary words, symbols, or sounds in this lesson? These may include terms underlined from the state curriculum standard(s).

- There is no content vocabulary for this lesson plan.

**Syntax and/or Discourse (not Early Childhood)**

Syntax *What are the specific ways or conventions for organizing symbols (e.g., linear, horizontal, words (grammar), phrases, or graphics that students need to know to be able to do what you are asking?*

Discourse *What are the specific ways in which members of a discipline (e.g., scientist, historian, etc.) talk, write, and communicate knowledge that students need to know to be able to do what you are asking (e.g., essays, presentations, performance, journal, debate, historical account, signal)?*

**Language Supports** *What general instruction will you provide to help students in the whole class (e.g., word walls, learning partners, guided notes) learn the discourse/syntax? What focused instruction (e.g., Venn diagrams, graphic organizers, outlines, student examples, sentence stems) will you provide to help students learn the discourse/syntax (can be completed in small groups)? What individual instruction that targets the needs of an individual student(s) will you provide to help that student(s) learn the discourse/syntax? What opportunities will you provide for students to practice language/vocabulary and develop fluency? What tools (e.g., EQ or vocabulary board, Venn diagram, anchor chart, vocabulary cards, graphic organizer, peer support, sentence stems, pictures, table, chart, thinking map, modeling, sort, song, body movements, games) will you use to help students meet the language demands?*

**General Supports** – *Strategies used to support the whole class and may be used to support more than one demand (e.g., Venn diagram, learning partners, word wall, anchor chart, vocabulary cards, graphic organizer, sentence stems, pictures, table, chart, thinking map, modeling, sort, song, body movements, games). These strategies can cross disciplines and be used in a variety of lessons.*  
TTW use a word wall and modeling to support whole class.

**Targeted Supports** – *Strategies that focus toward a specific language demand (e.g., Venn diagrams, graphic organizers, outlines, examples, sentence stems). These may be addressed during small groups. These can be general supports that are modified for specific students or groups of students.*  
TTW use vocabulary cards during small group, specific examples tailored to the children's level and modeling during small group.

**Individual Supports** – *Supports used to target the specific needs of an individual student (e.g., ELL, student with autism, struggling reader or writer, student with significant language delays). These students may or may not have been formally identified and may or may not have an IEP or 504 plan.*  
TTW use sentence stems, personalized vocabulary cards, number sentence cards, and specific examples and modeling tailored to the individual child's learning level and needs.

**Language Theory/Rationale:** *I am \_\_\_\_\_ because my students need \_\_\_\_\_. This is appropriate because \_\_\_\_\_.* Provide citation (APA, 6<sup>th</sup> edition) for learning theory and/or research.

I am reviewing words in print on the word wall because the students need to see the words. This is appropriate because "print materials are essential to helping students recognize letters and begin to figure out words" (Morrow, 2012, Page 145).

Instruction – When designing your instruction, consider when you will implement formal and informal assessments/evaluations, when you will provide feedback, and when you will teach academic language. Therefore, this section should include aspects written above.			
Lesson Part	Description of Activities and Instruction (Teacher Does)	Description of Activities and Instruction (Students Do)	Meeting Individual & Group Needs /Learning Styles <i>Plans instruction to meet the needs of individual students. Adaptations are tied to learning objectives. Specific individual or group learning includes requirements in IEP or 504 plans.</i>
<b>Set/Motivator:</b> <i>Restate and address your Essential Question. How do you engage student interest in the content of the lesson? How does this relate to previous learning? Use knowledge of students' academic, social, and cultural characteristics.</i>	<ol style="list-style-type: none"> <li>1. TTW connect prior learning by asking the students to recall what they remember about severe weather.</li> <li>2. TTW ask the students what types of severe weather we have in TN.</li> <li>3. TTW ask the students what a tornado is and how we can prepare for one.</li> <li>4. TTW show a short video about a tornado to give the students an idea of what a tornado entails.</li> </ol>	<ol style="list-style-type: none"> <li>1. TSW respectfully recall what they remember about severe weather.</li> <li>2. TSW recall what types of severe weather we have in TN.</li> <li>3. TSW answer questions respectfully.</li> <li>4. TSW watch the video about tornadoes while sitting on the rug.</li> </ol>	Tier three students will sit at the front of the rug to ensure they are paying attention.
<b>Instructional Procedures/Learning Tasks:</b> <i>Provide specific step-by-step details of lesson content aligned with objectives, utilizing a</i>	<ol style="list-style-type: none"> <li>5. TTW ask the students what the best materials choices are to contribute to a strong home design to withstand a tornado.</li> </ol>	<ol style="list-style-type: none"> <li>5. TSW respectfully answer questions.</li> </ol>	Tier three students may have an assigned work area.

<p><i>variety of teaching strategies.</i></p>	<ol style="list-style-type: none"> <li>6. TTW pass out materials to students (see materials list below).</li> <li>7. TTW ask the students to design a home that might withstand a tornado using any of the materials provided.</li> <li>8. TTW allow the students to work for fifteen minutes on their structures. During this time the teacher will walk around and ask each student questions to provoke high order thinking (see possible questions below) while writing down notes about each child's thinking.</li> <li>9. TTW ask the class to bring their structures back to the table and explain that the hairdryer will be used to test how strong their houses are.</li> <li>10. TTW hold the hairdryer 3 inches away from each house and turn the dryer on high for thirty seconds.</li> <li>11. TTW ask the students to write about what happened and justify why some houses stood longer and some did not last at all. TTW give</li> </ol>	<ol style="list-style-type: none"> <li>6. TSW receive materials.</li> <li>7. TSW design a home to withstand a tornado.</li> <li>8. TSW work for fifteen minutes and answer questions while working.</li> <li>9. TSW test their structures.</li> <li>10. TSW test their structures.</li> <li>11. TSW write about what happened and consult their thinking partners about their thinking.</li> </ol>	<p>Tier two and three students will have five extra minutes to finish their writing sample. Tier two and three students will also have the chance to revise writing the next day.</p>
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	<p>students time to consult their thinking partners.</p> <p>12. TTW give the students ten minutes to construct their answers in writing format.</p>	<p>12. TSW write about what happened.</p>	
<p><b>Questions and/or activities for higher order thinking:</b>  <i>These are open-ended and cannot be answered by yes or no. These can be asked at various points throughout the lesson and guide rather than direct student thinking.</i></p>	<ul style="list-style-type: none"> <li>• Why did you choose to use those materials?</li> <li>• How did you design your house to make it strong?</li> <li>• How could you make your design better and stronger?</li> </ul>		
<p><b>Closure:</b> <i>Makes clear connections to real-world situations and requires students to reflect on and apply their learning through verbal or written expression.</i></p>	<p>13. TTW sit the class on the rug and ask questions about the types of materials and which ones lasted longer.</p> <p>14. TTW collect the writing sample and create a lesson plan extending the thinking for tomorrow based on the children’s answers and questions.</p>	<p>13. TSW sit on the rug and respectfully answer questions.</p> <p>14. TSW turn in their writing sample.</p>	

**Material/Resources/Technology:** *What do you need for this lesson? Identify the specific materials, resources and instructional technologies that you will use. How will you model these technologies to engage students and add value to and improve their learning?*

craft pipe cleaners, liquid glue, duct tape, popsicle sticks, small rocks/pebbles, paper, homemade mud paste, drinking straws, and safety scissors, hair dryer

**Co-Teaching Strategies Used:** *(highlight and explain all that apply): One Teach, One Observe; One Teach, One Assist; Station Teaching; Parallel Teaching; Supplemental Teaching; Alternative (Differentiated); Team Teaching*

One teacher observes while the other teaches.

**Instruction Theory/Rationale:** *I am \_\_\_\_\_ because my students need \_\_\_\_\_. This is appropriate because \_\_\_\_\_. Provide citation (APA, 6<sup>th</sup> edition) for learning theory and/or research.*

I am using an introductory video to grab my students' attention because they need to be engaged in the lesson. This is appropriate because "if you can introduce material in a way that inspires and excites and you can get your students to take the first step willingly, then there is no content about which you cannot engender excitement, engagement, and deep learning among your students" (Lemov, 2020 Page 75).

**Meeting Individual & Group Needs Theory/Rationale:** *I am \_\_\_\_\_ because my students need \_\_\_\_\_. This is appropriate because \_\_\_\_\_. Provide citation (APA, 6<sup>th</sup> edition) for learning theory and/or research.*

I am using tiered lesson supports, such as providing more specific tools tailored to the specific child and allowing extra time, to help children meet the same learning goals, by a different pathway (Van de Walle, Lovin, Karp, Williams, 2014, Page 43).

#### Management/Safety Issues

**Management Issues:** *Explanation of processes and/or procedures, transitions from one activity to another, strategies for gaining attention, motivating students to engage in the lesson and focus on learning (e.g. work boards, posted procedures, modeling, positive feedback, redirection).*

Procedures will be posted and well-known by both the teacher and students. Specific procedures for this classroom include:

Being respectful of others

Clean up your materials when finished.

**Safety Issues:** *Are there any safety issues that need to be considered when teaching this lesson (e.g., outdoor activities, lab experiments, equipment use)? Expectations are explicitly outlined and are included as part of the instructional process.*

Students are expected to act respectfully during all classroom activities and follow rules to avoid safety issues.

#### References

Lemov, Doug. (2010). *Teach Like a Champion: 47 Techniques that Put Students on the Path to College*. San Francisco, California: Jossey-Bass Teacher

Morrow, L. M. (2012). *Literacy development in the early years: Helping children read and write* (8<sup>th</sup> ed.). Boston. Pearson.

Van de Walle, J. A., Lovin, L. H., Karp, K. S., & Bay-Williams, J. M. (2014). *Teaching student-centered mathematics: Developmentally appropriate instruction for grades pre-k-2* (2<sup>nd</sup> ed.). Boston, MA: Pearson.

## Complete Lesson Plan #2: Forecast Videos

**Lesson Title: Forecast Videos-Summative Assessment**

**Grade/Level: K**

**Date/Learning Experience #: 4/23/18**

Curriculum Standards	Essential Question	
<p><i>State Curriculum Standards – Underline your <u>language/vocabulary words</u></i></p> <p>K.ESS3: 2) Explain the purpose of weather forecasting to prepare for, and respond to, <u>severe weather</u> in Tennessee.</p>	<p><i>What question(s) or big idea(s) related to this lesson drives your instruction? Students should be able to answer this question by the end of the lesson.</i></p> <p>How do rain, snow, wind, and tornadoes contribute to severe weather in TN and weather forecasting?</p> <p>What is weather forecasting and how does it help us prepare for severe weather?</p> <p>How can we prepare for severe weather?</p>	
Lesson Objective(s) – Student Learning Outcome(s) for this learning experience		
<p><i>Objectives use active verbs, are measurable (if applicable), and link to standards. Consider using Bloom’s Taxonomy or Webb’s Depth of Knowledge.</i></p> <p>The students will create a short (less than 3 minutes) forecasting video where they will correctly identify what rain, snow, wind, and tornadoes are, how we can prepare for them, explain and give a weather forecast for one week based on journal entries from our unit.</p>		
Knowing Your Learners		
<p><i>Describe pre-requisite skills students already know that will help them meet the lesson objective(s). What is your evidence that students need this/these skills(s)? This may include pre-assessment data; student personal, cultural or community assets you have gathered and observations you have made concerning your students.</i></p> <p>Learners need to understand what rain, snow, wind, and tornadoes are and that they are types of severe weather in Tennessee. Learners need to understand what a weather forecast is and how to create one. Learners need to understand how to prepare for severe weather.</p> <p>Knowledge of these pre-requisite skills was gathered throughout the two-week unit.</p>		
Assessment/Evaluation		
<p><i>How will students demonstrate understanding of lesson objective(s)?</i></p> <p><b>Informal:</b> How will you monitor student progress towards lesson objectives as you are teaching? (formative assessment) I will monitor student progress toward objectives by observing and taking anecdotal notes.</p> <p><b>Formal:</b> What evidence (formative and/or summative) will you collect and how will you document student learning/mastery of lesson objective(s)? A summative assessment is not needed for every lesson, however, it is required for every lesson submitted for CAEP data collection points (e.g., 3000 courses – ECED 3210, READ 3100, SPED 3300, PEXS xxxx; 4000 courses – ECED 4680, CUI 4241, SPED 4710, PEXS xxxx, ECED 4780, CUI 4391, SPED 4850, PEXS xxxx).</p>		<p><b>Assessment Modifications</b> <i>What modifications will you make on assessments/evaluations for students with diverse and/or special needs (i.e. students with IEP or 504, struggling learners, advanced learners) and will these modifications be within/for small groups or individuals?</i></p>

<p>Students will submit a work sample (the forecast video) as their summative assessment for a two-week severe weather unit.</p> <p><b>Academic Feedback:</b> <i>The feedback can be both oral and/or written. What strategy/ies will you suggest to move student learning forward? How will feedback promote student understanding of the learning objective?</i></p> <p>Students will receive academic feedback from their work sample and meet with the teacher to discuss their work and understanding of the objective. Students will also be given time for think-pair-and share to encourage peer feedback.</p>	<p>Tier two and three students will be given extra time to complete the work sample and activity. Tier three students will also have a chance to revise their work sample after it is graded.</p>
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**Theory/Rationale for Assessment/Evaluation:** *I am administering/giving/collecting \_\_\_\_\_ because my students need \_\_\_\_\_. This is appropriate because \_\_\_\_\_. Provide citation (APA, 6<sup>th</sup> edition) for theory and/or research.*

I am collecting a work sample from a task the children complete because the students need to be evaluated on mastery of the topic. This is appropriate because "good assessment tasks for either instructional or formative assessment purposes" allow children "to demonstrate his or her knowledge, skill, or understanding" (Van de Walle, Lovin, Karp, Williams, 2014, Page 43).

**Academic Language Demands**

**Function and Product of the Lesson** *The function is the verb, usually a Blooms verb (e.g., analyze, interpret, recount), that guides the language objective of the lesson. This includes a product that students will either write, say, present, or do that involves Academic Language (e.g. essay, present, recount).*

The students will create a short (less than 3 minutes) forecasting video where they will correctly identify what rain, snow, wind, and tornadoes are, how we can prepare for them, explain and give a weather forecast for one week based on journal entries from our unit.

**Academic Vocabulary** *What specialized terms and phrases do students need to understand and use to complete the function? These may include terms underlined from the state curriculum standard(s).*

- Severe Weather: Dangerous weather  
This is a review term from another lesson on this standard, so this word will be reviewed and will already be displayed on the word wall.
- Weather forecasting: Predicting the weather  
This is a review term from another lesson on this standard, so this word will be reviewed and will already be displayed on the word wall.

**Content Vocabulary** *What are the key vocabulary words, symbols, or sounds in this lesson? These may include terms underlined from the state curriculum standard(s).*

- There is no content vocabulary for this lesson plan.

**Syntax and/or Discourse (not Early Childhood)**  
Syntax *What are the specific ways or conventions for organizing symbols (e.g., linear, horizontal, words (grammar), phrases, or graphics that students need to know to be able to do what you are asking?*  
Discourse *What are the specific ways in which members of a discipline (e.g., scientist, historian, etc.) talk, write, and communicate knowledge that students need to know to be able to do what you are asking (e.g., essays, presentations, performance, journal, debate, historical account, signal)?*

**Language Supports** *What general instruction will you provide to help students in the whole class (e.g., word walls, learning partners, guided notes) learn the discourse/syntax? What focused instruction (e.g., Venn diagrams, graphic organizers, outlines, student examples, sentence stems) will you provide to help students learn the discourse/syntax (can be completed in small groups)? What individual instruction that targets the needs of an individual student(s) will you provide to help that student(s) learn the discourse/syntax? What opportunities will you provide for students to practice language/vocabulary and develop fluency? What tools (e.g., EQ or vocabulary board, Venn diagram, anchor chart, vocabulary cards, graphic organizer, peer support, sentence*

stems, pictures, table, chart, thinking map, modeling, sort, song, body movements, games) will you use to help students meet the language demands?

**General Supports** – Strategies used to support the whole class and may be used to support more than one demand (e.g., Venn diagram, learning partners, word wall, anchor chart, vocabulary cards, graphic organizer, sentence stems, pictures, table, chart, thinking map, modeling, sort, song, body movements, games). These strategies can cross disciplines and be used in a variety of lessons.

TTW use a word wall and modeling to support whole class.

**Targeted Supports** – Strategies that focus toward a specific language demand (e.g., Venn diagrams, graphic organizers, outlines, examples, sentence stems). These may be addressed during small groups. These can be general supports that are modified for specific students or groups of students.

TTW use vocabulary cards during small group, specific examples tailored to the children's level and modeling during small group.

**Individual Supports** – Supports used to target the specific needs of an individual student (e.g., ELL, student with autism, struggling reader or writer, student with significant language delays). These students may or may not have been formally identified and may or may not have an IEP or 504 plan.

TTW use sentence stems, personalized vocabulary cards, number sentence cards, and specific examples and modeling tailored to the individual child's learning level and needs.

**Language Theory/Rationale:** I am \_\_\_\_\_ because my students need \_\_\_\_\_. This is appropriate because \_\_\_\_\_. Provide citation (APA, 6<sup>th</sup> edition) for learning theory and/or research.

I am reviewing words in print on the word wall because the students need to see the words. This is appropriate because "print materials are essential to helping students recognize letters and begin to figure out words" (Morrow, 2012, Page 145).

**Instruction** – When designing your instruction, consider when you will implement formal and informal assessments/evaluations, when you will provide feedback, and when you will teach academic language. Therefore, this section should include aspects written above.

Lesson Part	Description of Activities and Instruction (Teacher Does)	Description of Activities and Instruction (Students Do)	Meeting Individual & Group Needs /Learning Styles Plans instruction to meet the needs of individual students. Adaptations are tied to learning objectives. Specific individual or group learning includes requirements in IEP or 504 plans.
<b>Set/Motivator:</b> Restate and address your Essential Question. How do you engage student interest in the content of the lesson? How does this relate to	<ol style="list-style-type: none"> <li>1. TTW show a weather forecast video.</li> <li>2. TTW lead a discussion about the field trip from</li> </ol>	<ol style="list-style-type: none"> <li>1. TSW watch the video on the rug.</li> <li>2. TSW participate in a discussion about the field trip.</li> </ol>	Some students may be given extra time to complete this assignment, some may be paired with a learning partner to assist

<p><i>previous learning? Use knowledge of students' academic, social, and cultural characteristics.</i></p>	<p>yesterday regarding weather forecasting.</p> <ol style="list-style-type: none"> <li>3. TTW review the anchor chart from the beginning of the unit outlining the types of weather.</li> <li>4. TTW lead a discussion about how we can prepare for severe weather.</li> </ol>	<ol style="list-style-type: none"> <li>3. TSW sit on the rug while reviewing anchor chart.</li> <li>4. TSW discuss how to prepare for severe weather.</li> </ol>	<p>them in the process (but not complete their work for them), and some students may receive one on one assistance with me to complete this activity.</p>
<p><b>Instructional Procedures/Learning Tasks:</b> <i>Provide specific step-by-step details of lesson content aligned with objectives, utilizing a variety of teaching strategies.</i></p>	<ol style="list-style-type: none"> <li>5. TTW give students time to create a weather forecast on paper to use in their videos.</li> <li>6. TTW give an example of the forecast project she made herself.</li> <li>7. TTW ask the students to split up into their own work area and start putting together the project.</li> <li>8. TTW walk around and ask questions while taking anecdotal notes about the learning.</li> <li>9. TTW assist students in recording their short videos.</li> </ol>	<ol style="list-style-type: none"> <li>5. TSW create a forecast on a sheet of paper</li> <li>6. TSW watch an example video.</li> <li>7. TSW break into areas and work on their projects</li> <li>8. TSW answer questions about their learning</li> <li>9. TSW record their forecast videos.</li> </ol>	<p>Some students may be given extra time to complete this assignment, some may be paired with a learning partner to assist them in the process (but not complete their work for them), and some students may receive one on one assistance with me to complete this activity.</p>
<p><b>Questions and/or activities for higher order thinking:</b> <i>These are open-ended and cannot be answered by yes or no. These can be asked at various points throughout the lesson and guide rather than direct student thinking.</i></p>	<p>How do rain, snow, wind, and tornadoes contribute to severe weather in TN and weather forecasting?</p> <p>What is weather forecasting and how does it help us prepare for severe weather?</p> <p>How can we prepare for severe weather?</p>		
<p><b>Closure:</b> <i>Makes clear connections to real-world situations and requires students to reflect on and apply their learning through verbal or written expression.</i></p>	<ul style="list-style-type: none"> <li>• TTW lead a discussion on the significance of preparing for and forecasting weather.</li> </ul>	<ul style="list-style-type: none"> <li>• TSW participate in discussion.</li> </ul>	<p>Some students may be given extra time to complete this assignment, some may be paired with a learning partner to assist them in the</p>

		process (but not complete their work for them), and some students may receive one on one assistance with me to complete this activity.
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**Material/Resources/Technology:** *What do you need for this lesson? Identify the specific materials, resources and instructional technologies that you will use. How will you model these technologies to engage students and add value to and improve their learning?*

Video Recorders, Weather forecasting clothes, paper, pencils

**Co-Teaching Strategies Used:** *(highlight and explain all that apply):* One Teach, One Observe; **One Teach, One Assist**; Station Teaching; Parallel Teaching; Supplemental Teaching; Alternative (Differentiated); Team Teaching  
One teacher will lead, while the other assists at risk learners.

**Instruction Theory/Rationale:** *I am \_\_\_\_\_ because my students need \_\_\_\_\_. This is appropriate because \_\_\_\_\_. Provide citation (APA, 6<sup>th</sup> edition) for learning theory and/or research.*

I am using an introductory video to grab my students’ attention because they need to be engaged in the lesson. This is appropriate because “if you can introduce material in a way that inspires and excites and you can get your students to take the first step willingly, then there is no content about which you cannot engender excitement, engagement, and deep learning among your students” (Lemov, 2020 Page 75).

**Meeting Individual & Group Needs Theory/Rationale:** *I am \_\_\_\_\_ because my students need \_\_\_\_\_. This is appropriate because \_\_\_\_\_. Provide citation (APA, 6<sup>th</sup> edition) for learning theory and/or research.*

I am using tiered lesson supports, such as providing more specific tools tailored to the specific child and allowing extra time, to help children meet the same learning goals, by a different pathway (Van de Walle, Lovin, Karp, Williams, 2014, Page 43).

**Management/Safety Issues**

**Management Issues:** *Explanation of processes and/or procedures, transitions from one activity to another, strategies for gaining attention, motivating students to engage in the lesson and focus on learning (e.g. work boards, posted procedures, modeling, positive feedback, redirection).*

Procedures will be posted and well-known by both the teacher and students. Specific procedures for this classroom include:  
Being respectful of others  
Clean up your materials when finished.

**Safety Issues:** *Are there any safety issues that need to be considered when teaching this lesson (e.g., outdoor activities, lab experiments, equipment use)? Expectations are explicitly outlined and are included as part of the instructional process.*

Students are expected to act respectfully during all classroom activities and follow rules to avoid safety issues.

## References

Lemov, Doug. (2010). *Teach Like a Champion: 47 Techniques that Put Students on the Path to College*. San Francisco, California: Jossey-Bass Teacher

Morrow, L. M. (2012). *Literacy development in the early years: Helping children read and write* (8<sup>th</sup> ed.). Boston. Pearson.

Van de Walle, J. A., Lovin, L. H., Karp, K. S., & Bay-Williams, J. M. (2014). *Teaching student-centered mathematics: Developmentally appropriate instruction for grades pre-k-2* (2<sup>nd</sup> ed.). Boston, MA: Pearson.

## Unit Evaluation Plan (f)

### **Formative**

Formative assessment will be used very frequently throughout the unit. One of the simplest ways I will use formative assessment, is by asking the children to do a self-evaluation by showing a quick thumbs up, thumbs sideways, or thumbs down. This method is very simple, but highly effective when teaching. I will also check each student's journal entry daily as a formative assessment. The journal entries will give me a good idea of where the children are in their learning and what I need to modify. I will also use anecdotal notes throughout the unit that will be placed in each student's portfolio with the date and description of something I observed from their learning. ELL students who are not familiar with the English language may draw their journal entries, tell me what they mean, and I will write their words under the pictures for grading. Some students may also be given extra time to complete their work.

### **Summative**

The summative assessment for this unit will be the second lesson plan, forecast videos. This is the summative assessment because it encompasses technology, speaking, writing, listening, math, science, and social studies. It also has students relate each of the main topics (rain, snow, wind, tornadoes, weather data collection, forecasting, and preparing for severe weather) into one activity. Some students may be given extra time to complete this assignment, some may be paired with a learning partner to assist them in the process (but not complete their work for them), and some students may receive one on one assistance with me to complete this activity.

## A Letter to Parents (g)

Dear Parents,

Over the next two weeks, we will be discussing severe weather in Tennessee and how we can prepare for it. We will specifically be discussing rain, snow, wind, and tornadoes in depth because these are the main types of severe weather in our state. Your child will be conducting many experiments in the classroom, as well as keeping a journal of the daily weather. Towards the end of the two-week unit, we will take a field trip to a weather station to tour and speak with a meteorologist. I think this will be a great opportunity to introduce the students to this type of career and how it relates to our studies. We would love to have you join us on the field trip, so I will be sending a separate letter home explaining the details in a few days. Another way you can help your child learn, is to discuss the “safe spot” with them in your home in case of a tornado. In class, we will be discussing our safe spot and investigating the fastest way for the entire class to move to that spot. This would be a great activity for you to do at home and only requires a timer! Another activity I encourage you to do is to make an emergency supply box to keep in that safe spot! I would definitely collaborate with your child and use their ideas to create this emergency supply box. Thank you for your help, if you have any questions please let me know!

Thanks,

Mrs. Kerley

423-727-9154

spencerb@etsu.edu

## List of References (h)

### Teachers

Nat Geo Kids on YouTube: Wacky Weather Playlist. (2016, March 01). Retrieved from

<https://kids.nationalgeographic.com/explore/youtube-playlist-pages/youtube-playlist-weather>

Weather. (n.d.). Retrieved from <https://www.scholastic.com/teachers/collections/teaching-content/weather/>

### Families

Get a Kit. (n.d.). Retrieved from <http://www.redcross.org/get-help/prepare-for-emergencies/be-red-cross-ready/get-a-kit>

### Children

“One Rainy Day” by Christina Butler

“Let It Snow” by MaryAnn Lefler

“Wind” by Marion Bauer

## List of Resources Used in the Unit (i)

### **Materials and supplies**

Farmer's Almanac, Emergency Box & Supplies, Timer, Beads, Paper, Glue, Scissors, Duct Tape, Rocks, tin foil, posicle sticks, video recorder, jars, water, thermometer, rain gauge, journals, hairdryer, drop cord, play doh, anchor chart, pencils, paper, markers

### **Print and non-print**

“One Rainy Day” by Christina Butler

“Let It Snow” by MaryAnn Lefler

“Tornadoes” by Gail Gibbons

“Wind” by Marion Bauer

### **Technology resources**

Smart Board, Video recorder

### **Other**