

## Project 3: Wonderful Weather Forecasting

Cycle • Weather • Forecast



### Project Essential Questions

- What are the different types of daily weather happenings and their characteristics?
- Why is forecasting the weather important to people around the world?
- Why is recording daily weather events important in order to make a weather forecast?

#### PROJECT DESCRIPTION

In this project, students will record two weeks' worth of weather data as a whole group. Students will use the weather data to create a tally table and then create a bar graph. The students will focus on weather forecasting and how it relates and affects the real world. Students will use body movements to represent their daily weather findings as well as perform these movements together. The students will also record their own weather data for one week, outside of the school setting. They will then use their data to create and record their own weather forecast.

#### LEARNING TARGETS

- "I Can..."
- Understand the importance of the weather
  - Forecast the weather
  - Create & perform body movements to represent daily weather happenings
  - Collect 2 weeks of daily weather data
  - Use a tally table and bar graph to tabulate weather data
  - Collect and record 1 weeks' worth of daily weather happenings
  - Organize, create, and present/video-record my own weather data forecast

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Units provide differentiated ideas and activities aligned to a sampling of standards.

The units do not necessarily imply mastery of standards, but are intended to inspire and equip educators.

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Cherokee County (GA) School District and ArtsNow, Inc.

**DURATION: 2 weeks**

Project Description	Learning Targets
<p>In this project, students will record two weeks' worth of weather data as a whole group. Students will use the weather data to create a tally table and then create a bar graph. The students will focus on weather forecasting and how it relates and affects the real world. Students will use body movements to represent their daily weather findings as well as perform these movements together. The students will also record their own weather data for one week, outside of the school setting. They will then use their data to create and record their own weather forecast.</p>	<p><b>"I Can..."</b></p> <ul style="list-style-type: none"> <li>● Understand the importance of the weather</li> <li>● Forecast the weather</li> <li>● Create &amp; perform body movements to represent daily weather happenings</li> <li>● Collect 2 weeks of daily weather data</li> <li>● Use a tally table and bar graph to tabulate weather data</li> <li>● Collect and record 1 weeks' worth of daily weather happenings</li> <li>● Organize, create, and present/video-record my own weather data forecast</li> </ul>

**ESSENTIAL QUESTIONS**

<ul style="list-style-type: none"> <li>● What are the different types of daily weather happenings and their characteristics?</li> <li>● Why is forecasting the weather important to people around the world?</li> <li>● Why is recording daily weather events important in order to make a weather forecast?</li> </ul>
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**STANDARDS**

Curriculum Standards	Arts Standards
<p><b>S1E1.</b> Students will observe, measure, and communicate weather data to see patterns in weather and climate. Identify different types of weather and characteristics of each type. c. Correlate weather data (temperature, precipitation sky conditions, and weather events) to seasonal changes.</p> <p><b>S1CS5.</b> Students will communicate scientific ideas and activities clearly. c. Use simple pictographs and bar graphs to communicate data.</p>	<p><b>D1CR.1.</b> Demonstrates an understanding of creative and choreographic principles, processes, and structures.</p> <p><b>VA1MC.1.</b> Engages in the creative processes to generate and visualize ideas. a. Recognizes and discusses how visual images can have multiple meanings.</p>

**KEY VOCABULARY**

Content Vocabulary	Arts Vocabulary
<ul style="list-style-type: none"> <li>● Meteorologist</li> <li>● Weather report</li> <li>● Precipitation</li> <li>● Temperature</li> <li>● Forecasting</li> <li>● Predicting</li> <li>● Tally chart</li> <li>● Bar graph</li> <li>● Data</li> </ul>	<ul style="list-style-type: none"> <li>● Body movements</li> <li>● Representation</li> <li>● Unison</li> <li>● Facial expression</li> <li>● Choreography</li> </ul>

<ul style="list-style-type: none"> <li>• Sunny</li> <li>• Cloudy</li> <li>• Scattered showers</li> <li>• Thunderstorms</li> <li>• Snow</li> <li>• Ice</li> </ul>	
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**TECHNOLOGY INTEGRATION**

<ul style="list-style-type: none"> <li>• <a href="http://pbskids.org/dragonflytv/scientists/scientist12.html">http://pbskids.org/dragonflytv/scientists/scientist12.html</a> (This website provides a short video in which you meet Meteorologist Howie Bluestein as he explains what his job entails.)</li> <li>• <a href="http://www.air-n-water.com/weather-forecasting-for-kids.htm">http://www.air-n-water.com/weather-forecasting-for-kids.htm</a> (This website provides a short, written explanation as to the methods in which meteorologists use when making their weather predictions/forecasts.)</li> <li>• <a href="https://www.youtube.com/watch?v=qWWx3reC9qA">https://www.youtube.com/watch?v=qWWx3reC9qA</a> (This YouTube video (5 min 33 seconds) features Weather Forecasting for Kids with Meteorologist JD Rudd is full of useful information that the students may enjoy watching.)</li> </ul>
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**ASSESSMENTS**

Formative	Summative
<ul style="list-style-type: none"> <li>• Daily class participation in accumulating weather information as well as the body movements/dances that correspond with each specific type of weather event.</li> </ul>	<ul style="list-style-type: none"> <li>• Video recorded weather forecast</li> <li>• 5-day weather presentation</li> <li>• <b>Weather Forecast Rubric</b> (see Downloads)</li> </ul>

**MATERIALS**

<ul style="list-style-type: none"> <li>• <i>Cloudy With a Chance of Meatballs</i> by Judi Barrett, chart paper, computer, projector, various writing utensils, video camera</li> </ul>
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Activating Strategy
<ul style="list-style-type: none"> <li>• Teacher will show the class the cover of the book, <i>Cloudy With A Chance of Meatballs</i> by Judi Barrett. Teacher will ask the class: What do you think the title and cover of this book has to do with weather? Discuss as a whole group.</li> <li>• Read <i>Cloudy With A Chance of Meatballs</i>. After you reach the part in the book where there is an example of a “real” weather forecast, spend a few minutes having a class discussion on what the students know and or do not know about the topic of weather forecasting.</li> <li>• Complete the rest of the book.</li> </ul>
Main Activity
<p><b>Part 1:</b></p> <ul style="list-style-type: none"> <li>• Review the YouTube video clip of a real world example of a weather forecast on the evening news with Jason Brewer, a meteorologist from Florida: (<a href="https://www.youtube.com/watch?v=j_3dZPFbsZM">https://www.youtube.com/watch?v=j_3dZPFbsZM</a>)</li> </ul>

- Show the students the example of the **Wonderful Weather Forecasting Recording Sheet** (see Downloads), either via the computer & projector or you could recreate this sheet on a large piece of chart paper or butcher paper.
- Explain to the students that for the next 2 weeks they will be observing the weather, recording the weather on a daily basis, as well as coming up with a body movement/dance (choreography) that goes along with the weather. (Example: A sunny day could be represented by putting your arms above your head in an arch to make a circle, and the students could have a big smile on their faces while their arms are raised in a circle like figure.) As a whole group they will record their observations on the recording sheet.
- To keep it simple, use the following list for weather observations: sunny, cloudy, scattered showers, thunderstorms, snow, ice.
- This activity will be done on a daily basis for 2 weeks: recording the weather and using the body movement that corresponds with the weather that day.

**Part 2:**

- On the 10th day of recording the weather as a whole group, the class will create a tally chart tallying the daily weather observations. Then the class will use the tally chart to create a bar graph. Using the collected data, a class discussion can take place on which weather observations happened the most or least. Remember to use the body movements/choreography as you review the 2 weeks' worth of weather data.
- Review with the class what weather forecasting is. There are several books in the Additional Resources section, as well as video clips in the Technology Integration section, to assist in this class discussion.
- Explain to the class that they will be creating their own weather forecast, recording their weather observations for 5 days, and then performing their weather forecast for the class and or video recording the forecasts.
- Each student will receive a copy of the **My 5-Day Weather Forecast Planning Sheet** (see Downloads). Review the directions as a whole group.

**Part 3:**

- On the 6th day the students should return to school with their weather forecasting sheets already completed.
- At this point the teacher can decide how creative they will allow their students to get in regards to sharing their own 5-day weather forecast. It could be as simple as the students reading their forecasts in front of the class to adding more creativity to the project by adding props and recording the forecasts to reflect an actual weather forecast that is done on television.

**REFLECTION**

**Reflection Questions**

- How did adding body movements/dances to represent the daily weather help me to better understand different weather events?
- Why is it important to use voice inflection and props when producing a weather forecast on television?

**DIFFERENTIATION**

**Below Grade-Level:**

- These students could do their illustrations for their 5-day weather project. They could also write the weather word being illustrated instead of using it in a complete sentence.



**Above Grade-Level:**

- This group of students could do research on specific weather events such as: hurricanes, tornadoes, tsunamis, cold fronts, etc. They could in turn share this new information with the class as a whole and or in small groups.

**EL Students:**

- These students would highly benefit from having several different children's weather books as a resource throughout the project. They could also be partnered with an on grade-level or above grade-level student to assist with the actual presentation of the 5-day weather forecast/report.

**ADDITIONAL RESOURCES**

- *Oh Say Can You Say What's the Weather Today?* By Tish Rabe
- *Weather Forecasting* by Gail Gibbons
- *What Will the Weather Be Like Today?* By Paul Rogers
- *Freddy the Frogcaster and the Terrible Tornado* by Janice Dean

**APPENDIX**

- **Weather Forecast Rubric**
- **My 5-Day Weather Forecast Planning Sheet**
- **Wonderful Weather Forecasting Recording Sheet**

**CREDITS**

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