

Unit 2 Weather Forecasting

Content Area: **Science**
Course(s): **Science K**
Time Period: **Marking Period 2**
Length: **MP 2**
Status: **Published**

Essential Questions

- How does the weather change so much each year?
- What do animals do at different times of the year?
- Which kinds of weather are best for flying a kite?
- How can you get ready for a big storm?
- Have you ever watched a storm?
- How many different kinds of weather are there?
- How can we be prepared for the weather?

Big Ideas

In this unit, students gather evidence in order to identify daily and seasonal weather patterns. They use those patterns to explain mysteries like why you might lose your jacket during the day or why birds lay their eggs at certain times of the year. Students will also explore storms and severe weather. They obtain information from weather forecasts to prepare for storms and stay safe. They also practice describing the various characteristics of weather (wind, clouds, temperature, and precipitation) in order to make their own predictions about storms.

Climate Change

Career Readiness

9.4.2.CT.1: Gather information about an issue, such as climate change, and collaboratively brainstorm ways to solve the problem (e.g., K-2-ETS1-1, 6.3.2.GeoGI.2).

9.4.2.CT.2: Identify possible approaches and resources to execute a plan (e.g., 1.2.2.CR1b, 8.2.2.ED.3).

9.4.2.CT.3: Use a variety of types of thinking to solve problems (e.g., inductive, deductive).

9.4.2.DC.7: Describe actions peers can take to positively impact climate change (e.g., 6.3.2.CivicsPD.1).

- Activity: Students will learn about Smokey the Bear and how to prevent forest fires

Diversity Integration

Objective: Students will be able to relate how snowflakes are unique to how people are unique.

Activity: The students will listen to Snowflake Bentley on Bookflix. The teacher will lead a discussion about how people, like snowflakes, are all different but special in their own way. The students will create their own paper snowflakes and share them with the class.

Science and Engineering Practices

Obtaining, Evaluating, and Communicating Information:

- Read grade-appropriate texts and/or use media to obtain scientific and/or technical information to determine patterns in and/or evidence about the natural and designed world(s).
- Obtain information using various texts, text features (e.g., headings, tables of content, glossaries, electronic menus, icons), and other media that will be useful in answering a scientific question and/or supporting a scientific question and/or supporting a scientific claim

Science and Society

Social Justice

See Social Studies Appendix C for more details

Theme: Wellness/Mindfulness

[You Are Like A Seed](#)

Question:

- How are you like a seed? (you start off small and then you grow)

Activity: Discuss: How are you like a seed?

CSDT Technology Integration

8.1.2.DA.4: Make predictions based on data using charts or graphs.

8.1.2.DA.3: Identify and describe patterns in data visualizations

8.2.2.ED.3: Select and use appropriate tools and materials to build a product using the design process.

8.2.2.ITH.3: Identify how technology impacts or improves life.

Activity: Students will keep track of daily weather and predict the weather for the next day like weather reporters do. They can record videos each day of their weather forecasting using FlipGrid.

Enduring Understandings

Next Generation Standards

Natural Hazards

K-ESS3.B Some kinds of severe weather are more likely than others in a given region. Weather scientists forecast severe weather so that the communities can prepare for and respond to these events.

Defining and Delimiting an Engineering Problem

K-ESS3.A Asking questions, making observations, and gathering information are helpful in thinking about problems.

Focus Areas

Knowledge

- There are different types of severe weather.
- Where you live can determine what types of severe weather occurs.
- Weather scientists help us prepare for severe weather.
- We can prepare for severe weather.

Skills

- There are different types of severe weather.
- Where you live can determine what types of severe weather occurs.
- Weather scientists help us prepare for severe weather.
- We can prepare for severe weather.

Understandings

- Ask questions to obtain information about the purpose of weather forecasting to prepare for, and respond to, severe weather.

Resources

Primary Resources

- Mystery Science
- NJCTL Unit 6 Severe Weather

Core

- Types of Weather Activity: "Hello World! Weather", by Jill McDonald
- Weather Forecasting Activity
- Weather Tools Activity
- Blizzards Activity
- Hurricanes Activity
- Tornadoes Activity
- Tornado Lab
- How to get Ready for a Big Storm Read Along

Supplemental

- Air Pressure Activity
- Making a Barometer Lab
- National Weather Service Activity
- Sand Storms Activity
- Preparing for Severe Weather Activity