

Wild About Weather

This project was very effective. My students were enthusiastic, and they learned an amazing amount of information about weather because they had the opportunity to complete hands-on investigations. I truly believe they learned much more than they would have if they had only read and watched videos about this topic!

Curriculum/State Standard

Students will develop and use scientific skills and concepts to formulate questions and hypotheses about weather, and they will design investigations to test them.

Overview

Students learned that meteorologists are weather detectives who use clues and tools to analyze and predict weather conditions. Each student then played the role of a meteorologist by using grant-purchased materials to create and explore instruments used in a basic weather station.

Objectives

- The students will create and follow simple procedures to explore the four main components of weather -
- air, sun, wind, and water - by using purchased and created instruments utilized in a basic weather station.
- The students will experiment with rain gauges, hygrometers, psychrometers, barometers, and anemometers to measure rainfall, barometric pressures, humidity, and wind speed to analyze and predict weather conditions.

Continued on the back...

4

GRADE LEVEL



ARTS



LANGUAGE



MATH

Misc

MISCELLANEOUS



SCIENCE



HISTORY



SOCIAL STUDIES

4

MONTHS

\$800

TOTAL BUDGET



THIS WINNING LESSON PLAN WAS SUBMITTED BY:

Cheri Chilson
Mespo Elementary
2345 Rt. 88, Bristol, OH 44402

"Wild About Weather" project continued...

Materials

The Kid's Book of Weather Forecasting by Mark Breen (ISBN: 1-8855893-39-2)

Weather by Gail Gibbons (ISBN: 0-8234-0952-X)

Weather Forecasting by Gail Gibbons (ISBN: 0-689-71683-4)

Air by Laurie Hamilton (ISBN: 0-7613-0087-2)

Wild, Wet, and Windy by Carrie Llewellyn (ISBN: 0-7636-0630-8)

Simple Weather Experiments With Everyday Materials by Muriel Mandell (ISBN: 0-8069-7295-5)

Why Does Lightning Strike by Terri Martin (ISBN: 0-7894-1123-7)

Magic School Bus Kicks Up a Storm (Book & Video), by Scholastic

Looking at Weather by David Suzuki (ISBN: 0-471-54047-1)

From Nasco Science: story of weather charts, weather vane kits, anemometer kits, barometer kits, hygrometer kits, windbags, coriolis effect kit, solar bags, thermometers, weather check rain gauges, weather models, weather monitor board.

From Delta Education: thermometer puzzles, cloud posters, water cycle models, demo thermometers.

Readiness Activity

Each student brainstormed and wrote a list of every thing they knew about weather. As students shared their lists, the class began a K-W-L chart to prepare for the unit.

K- What we know.

W- What we want to know.

L- What we learned.

Strategies/Activities

Details and directions for the following activities are described in detail in the books listed in the materials section. Individually or in groups, Students:

1. Kept weather logs where they plotted weather patterns, made predictions, recorded measurements and observations, and created graphs and charts.
2. Made weather instruments and installed rain gauges to use throughout the project when making and recording weather observations.
3. Explored the properties of air by using windbags, 2 lt. Bottles, and air pressure rockets.
4. Matched cloud formations overhead with the full-color cloud identification poster to make weather predictions.
5. Learned how to read a thermometer by watching teacher demonstrations, practicing with the thermometer puzzles during stations, and by using thermometers to make observations.
6. Read The Magic School Bus at the Waterworks by Joanna Cole, and created a water cycle as it occurs in nature using the water cycle kits.
7. Used the Internet to research local, national, and international weather reports and satellite maps.
8. Calculated average temperature, rainfall, and days of sunshine and then graphed the results.
9. Used these graphs as the basis for class discussion of changes in weather and of various weather relationships.

10. Used the Coriolis Effect Kit to simulate the effect of the earth's rotation on winds, ocean, currents, and material objects.

11. Throughout the entire project, students read a variety of trade books about weather and its components.

Culminating Activity

During the last week of school we:

1. Completed the solar balloon activity. (It was awesome!)
2. Made weather fact mini-books.
3. Completed the L-What we learned column in our K-W-L chart.

Evaluation

Student learning was measured with science process rubrics (teacher and student generated), which were used to score science journal entries, writing extensions, data sheets, graphic organizers, observations, oral presentations, and discussion.

Rubrics, Checklists & Other Assessments for the Science You Teach, by Ann Flagg (Scholastic); and Science Assessment, by Julia Jasmine (Teacher Created Materials) were helpful publications that helped me design activity pages and assessments for students.