



Careers: Meteorologist
Grades: 5-8

Description:

Who do you think of when you hear the reference to a meteorologist? Most of us think of the person on the television who tells us about the daily temperature and upcoming weather patterns. Meteorology is actually the science of the atmosphere. It takes its name from the Greek word *meteoron*, meaning something that happens high in the sky. In this “Day in the life of a Meteorologist” Passports, students will learn about a career in meteorology and gain a greater appreciation for weather and the art and science of predicting weather.

Did you know that the ancient Greeks were already were observing clouds, winds, and rain and tried to understand how they are connected to one another so many years ago? The weather was important in their society because it affected the farmers who raised their food and their seamen who sailed the oceans. Today, our society and environment are affected even more seriously by events and changes in the atmosphere. Meteorologists look for answers to important questions such as how to save lives in severe weather conditions and how to protect the environment. Let’s open the doors and step outside into the world of meteorology!

Preparation for the Excursion

To ensure the most meaningful learning experience for your students, it is recommended that students engage in activities prior to the excursion. The video resources provide students with a context for the virtual excursion. The additional resources and activities offer opportunities for curricular connections and integration within your larger unit of study. The excursion is intended to complement a comprehensive unit.

Video Link: (Use the following link to view the *Day in the life of a Meteorologist* video)
http://easylink.playstream.com/21_CenturyLearning/occupations/meteorologist_46.rm

Challenge Questions:

To begin the Passports and assess students’ prior knowledge ask students to respond to these questions:

- What do the terms meteorologist and meteorology mean?
- Why is there a need for meteorologists?
- How has technology changed a meteorologist’s job?
- What challenges do meteorologists face in their jobs?
- What skills are necessary to be successful in this career?
- What do most people think of when they hear the word meteorologist?
- What do you think a typical day would be like for a meteorologist?
- Compare meteorology today with that of 100 years ago. What changes have occurred?

- Has the study of weather increased in importance over the past century? Explain.
- Why is the study of weather and weather forecasting so important?

Responses/Prompts:

The questions are intended to spark thinking about a career in meteorology and the study of weather.

Lesson at a glance:

Students will act as a meteorologist as they create and share a weather forecast. Students will discuss the changes in the study of weather with the introduction of certain technologies. All students will record the temperature at their house at a certain time on the same day, and then discuss the results.

Lesson Outcomes:

The students will:

- Recognize different components that makeup a weather forecast and how difficult it may be at times to forecast correctly.
- Understand the advancements that have been made in meteorology with the introduction of new tools and technology, and their importance in our society.
- Reflect upon the results of a temperature experiment and research further information based on what they found.

Activity:

Activity #1: Weather Forecast

As a meteorologist of your local news program, you and your co-workers need to write a script for tonight’s broadcast. Before you can begin to know what you will say, you will need to research for important weather information and current and future forecasts in your area using the newspaper or online resources. Each meteorologist team should include the following in their forecasts:

- 1) introduction
- 2) a review of current weather conditions
- 3) a forecast for the rest of the week- this should include a poster for the highs/lows and possible precipitation for the rest of the week.
- 4) include local activities that the upcoming weather will affect
- 5) advice about preparing for the weather

Students will then present their broadcasts to the class.

Activity #2: Technology and Meteorology

How has the world of meteorology changed with the introduction of technology? Students will research how meteorologists use technology to forecast the weather. Challenge students to research past methods of forecasting and predicting the weather to current methods and tools. Which methods are more effective? Ask students to develop a PowerPoint presentation showing this change over time.

Activity #3: Weather Around Town

Explain to the students that they will be taking thermometers home this evening to record the temperature of the air in their backyard. "You will all be taking the temperature at your home at exactly 7 PM tonight." Some questions to stimulate thought:

- Any guesses as to what you think the temperature will be tonight? Why?
- Do you think you will all record the same temperature or different temperatures? Why?
- If there are different temperatures recorded, will the warmer ones be on one side of town and the colder ones be on another? Will they be mixed up? Why?
- Are there any reasons why the temperature where I live will be different than where you live?
- Why is it important to know the different temperatures in a specific area?

Create a class chart that students will record the temperatures at their houses. From these records, different activities can be created. For example, high/low temperatures, average temperatures, record temperatures on a map and observe where different temperatures were recorded, the reasons that different temperatures occurred.

Activity #4: World Wide Weather

In this project, students will be divided into groups based on their interest. Each team will track and study the weather in a particular country. Students can use spreadsheets to organize the data and create graphs. Students can interpret the different representations of the data to identify weather patterns and predict future weather. The project culminates with students presenting their findings. Students could develop a PowerPoint presentation showcasing weather patterns in their country and the impact on lifestyle. A poll could be taken to determine where students may want to live based on this information.