

What Should I Wear Today?

4th Grade

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1. References:

- “Water Affects the Weather” lesson plan from 4th grade curriculum guide

2. Benchmarks:

ES-4 (Benchmark D): Describe weather by measurable quantities such as temperature, direction, wind speed, precipitation, and barometric pressure. .

3. Objectives:

Understand that weather is only predicted and can change from one day to the next with very short notice. Predictions are done by scientists daily and even weeks in advance so that we can make plans for the upcoming week or weekend, as well as what to wear the next morning.

4. Materials:

- Weekly weather prediction chart for Columbus, Ohio (Transparency)
- 2-Day weather prediction for Columbus, Ohio (Transparency)
- Handout containing questions and weather charts

5. Initial Demonstration:

Remind the students that we previously discussed barometric pressure and the typical trends seen with a rise and fall in pressure. Also explain percentages and why the chance of rain showers are typically given in percents. A review of the weather symbols would also be beneficial since they will be using them in this exercise to answer questions about local Columbus, Ohio weather.

6. Target Observations:

- Local weather during a one week time period should remain quite steady.
- Changes in barometric pressure can be used to predict local weather.

7. Target Model:

- Looking at weather data and being able to interpret the information is critical in planning a weekend vacation, as well as simply knowing what to wear in the morning before going outside.

8. Procedure:

Hand out to each of the students a copy of the 2-day and weekly weather predictions for Columbus, Ohio taken from the WeatherChannel.com. Each handout will contain questions that relate to data on the page. Beginning with the 2-day forecast, place the transparency on the overhead projector and discuss the information as a class. Be sure to point out patterns and any symbols that may not be familiar to the students. Then have the students answer the questions following the discussion. Once sufficient time has been given, discuss the answers aloud with the students. Proceed to do the same with the weekly forecast. Have the students determine any noticeable patterns, followed by them answering the questions independently. Again, discuss the answers the students have chosen and give the correct answers. Collect the handouts from the students for grading.

9. Target Observations:

- Cooler temperatures occur during the early morning and hottest temperatures occur during the afternoon.
- Winds can change direction any hour of the day, as well as speed.

10. Revised Target Model:

- Meteorologists use expensive scientific equipment such as balloons, satellites and radar to help them predict the weather. These instruments combined with thermometers, rain gauges, wind vanes, anemometers, and barometers give us better ideas about upcoming weather conditions.

11. Summary:

Students have learned to interpret weather data from an internet source in order to be better prepared for the ever changing weather here in Columbus, Ohio.