

Climate Change Basics: Reading Temperature Data

Name: _____ Date: _____

LEARNING OBJECTIVE

The student will graph real or provided historical temperature data and interpret the resulting trend.

MATERIALS NEEDED

- graph paper
- ruler
- pencil
- colored pencils
- provided or researched historical average temperature data (student may use local weather records or provided data table)

HANDS-ON ACTIVITY

1. Obtain or use a provided table of average annual temperatures for your region (or a global average) covering at least 10 different years/decades.
2. Plot the data as a line graph on graph paper, with years on the x-axis and temperature on the y-axis, labeling both axes clearly.
3. Draw a trend line through your plotted points using a ruler to visualize the overall direction of change.
4. Calculate the total change in temperature from the first year to the last year in your data set.
5. Color-code your graph to highlight the 3 warmest and 3 coolest years in your data.

QUESTIONS

1. What is the total temperature change from the first data point to the last one in your graph?

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2. Does your trend line show warming, cooling, or no clear pattern? Describe the overall shape.

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3. Why is it more reliable to look at a long-term trend line rather than comparing just two individual years?

4. Name one human activity that scientists link to rising global temperatures.
