

Weather Patterns

Materials Needed: Outdoor thermometer, glass container, paper

Questions for the Scientist:

1. What factors contribute to weather patterns?
2. Are temperature and precipitation related?

State Your Hypothesis: _____

Procedures:

1. Choose an outdoor location for your laboratory.
2. Place an outdoor thermometer and glass container in the chosen location.
3. Record the location and time at your location. Be sure to describe if you placed the thermometer and container in a shaded area, sunny area, or other type of area.
4. Create a chart for temperature, and create a chart for precipitation.
5. Research the climate and the recent weather patterns in your area.
6. Make a prediction about the daily temperature and precipitation for each day of the next two weeks.
7. Monitor the outdoor thermometer and container every day. Use your chart to record the temperature and the level of water, or precipitation, captured in the container. Be sure to record this information at the same time every day.
8. Each day compare your data with the data of another reputable source (weather channel, newspaper, etc.). Record this information.
9. At the end of two weeks, compare your initial predictions with the data you collected.

Key Questions:

1. What was the average temperature and precipitation? Did the data you collected differ from the data others collected?
2. What conclusions can you draw about the climate and weather patterns in your area?
3. To what extent are temperature and precipitation related? What evidence do you have to explain your conclusions?

Results and Application:

After studying your results, what conclusions can you draw? Do your results support your hypothesis? Explain your reasoning.