

World weather

Related outcomes

- WM 3.1: A student extends a mathematical investigation by asking “what if” questions.
- WM 3.2: A student selects and uses appropriate problem solving strategies to complete investigations.
- WM 3.3: A student uses mathematical terminology and some conventions to explain, interpret and represent mathematical situations in a variety of ways.
- M 3.6: A student estimates, measures and records temperatures of objects and materials in degrees Celsius.
- N 3.5: A student selects and uses appropriate mental, written and calculator techniques to approximate and calculate solutions to problems involving whole numbers, money and decimal fractions.
- S 3.5: A student displays, reads and interprets a variety of graphs.
- VA 2: A student demonstrates a positive response to the use of mathematics as a tool in practical situations.
- VA 10: A student recognises the economy and power of mathematical notation, terminology and convention in helping to develop and communicate mathematical ideas.

Possible indicators

- A student can:
- locate information about temperature in weather reports
 - accurately record data onto a graph
 - use data to make comparisons and draw conclusions
 - calculate differences in temperature using degrees Celsius
 - generate questions for others to solve.



Syllabus links

Space	Graphs 4, 6
Measurement	Temperature 7
Number	Subtraction 9, 10, 11

Teaching activity

1. Students bring in newspapers which contain weather conditions in major world cities, or use the Internet to obtain the information. Two useful sites are: <http://www.weather.com> and <http://weather.lycos.com>
2. In groups, students collect one world weather report and use it to generate a series of questions. Possible questions might include:
 - Which city had a temperature range similar to that of our local area?*
 - Which city had the coldest day?*
 - What might a person wear on such a cold day?*
 - Which city had the largest temperature range?*
 - Which city had the smallest temperature range?*

3. Groups then swap their world weather reports and questions with other groups for completion.

Extension

4. For a month, students find the maximum and minimum temperatures of a city in the northern hemisphere. These results are plotted on a column or line graph. Students then write a report describing the weather that people in the city may experience. Repeat for your local area, and draw out any interesting features between the graphs. This could be repeated six months later, with the results compared.

Language

Celsius, temperature, hot, cold, warm, degrees, column graph, data

Equipment

newspapers containing world weather conditions, Internet