

**Activity - 'Dro and the Weather Map'****Objectives**

By the end of this lesson the student will:

make a simple prediction based on observations

use simple statements to report on patterns identified in scientific explorations

be able to identify the symbols used for isobars, a high and low pressure region and a cold front

make a six sided snowflake.

**Resources and actions**

Access to the internet is needed as the web pages include animations and an interactive weather maps slide show.

Preload all 11 of the 'Dro and the Weather Map' web pages onto your schools proxy server (if it has one) to make it quicker and easier for your students to download the animations. Your IT person should understand what this means if you don't.

The content is in the form of a storybook titled 'Dro and the Weather Map'. It has nine pages numbered 1 to 9.

Two other pages are linked to the storybook, one is titled More About Raindrops

[http://www.bom.gov.au/lam/Students\\_Teachers/dro/drop11.shtml](http://www.bom.gov.au/lam/Students_Teachers/dro/drop11.shtml) the other is the worksheet titled Best Day for a Picnic

[http://www.bom.gov.au/lam/Students\\_Teachers/dro/drop10.shtml](http://www.bom.gov.au/lam/Students_Teachers/dro/drop10.shtml). The worksheet should be printed off and photocopied, one for each student. They will use it to write their response to the task.

**A starting point**

Define the word **weather** as a starting point.

Weather is a description of what's happening with the air, sun, rain and wind when you go outside.

Three things make up the different parts of the weather. They are the sun, air and water.

**Preparation**

Before the class ask students to bring in a weather map from a newspaper to allow a study of the current weather.

**Making a snowflake**

Make a snowflake yourself to understand the correct method of folding the

paper in order to get a six-armed snowflake.

Make a line drawing of a circle with lines (approx. 21 cm in diameter) similar to the one found on the worksheet. The lines are rotated at 60-degree intervals around the centre. The lines will help in the folding process. Photocopy and give one per student. Make extra photocopies as they will want to make more than one snowflake.

### Exercise 1 solution

Sunday would be the best day to have a picnic in Melbourne. Use the interactive weather maps on the worksheet to show why it would be the best day. There is a high over Melbourne, it is clear and sunny on Sunday 18/6/00.

### Other sources of information

The Bureau of Meteorology has up to date synoptic charts <http://www.bom.gov.au/weather/national/charts/synoptic.shtml> and weather maps <http://www.bom.gov.au/info/weathmap/showwhat.htm> for more information. See also the alphabetic list of topics on the Learn About Meteorology <http://www.bom.gov.au/lam/index.shtml> home page under 'W' and 'S'.

Go to High and Low Pressure [http://www.bom.gov.au/lam/Students\\_Teachers/pressure.shtml](http://www.bom.gov.au/lam/Students_Teachers/pressure.shtml) systems for information about high and low air pressure regions. There you will find a number of **animations that will download automatically (total size 200Kb)**.

## Extension Activity

### Weather presenter game

Have the students play at being TV News weather presenters. They could study the weather forecast from the current newspaper and then do a 3-minute weather report in front of the class.

### Have students animate a series of current weather maps.

If you have good IT skills you could get students to collect a series of daily weather maps and animate them by scanning, naming and sizing them the same as those used in the javascript from the worksheet that runs the animation we've provided. The javascript could be copied and pasted into a new web page for this purpose. They are .jpg files and currently named by their date i.e 15.jpg (15/6/00), 16.jpg, 17.jpg etc. up to 21.jpg. They are 199 x 159 pixels in size. All images should be placed in a folder called 'images'.

## Time

60 minutes.

## Assessment Task

They should use at least two of these terms: *cold front*, *westerly wind*, *sunshine*, *high pressure* and *cloud*, correctly in a written response. Their response should reflect an understanding of the movement of weather from the west to the east.