Lesson Plan 23 **Earth and Space Sciences**

Year Level: 3/4 **Key learning area:** Science

High and Low Pressure Systems

Objectives

By the end of this lesson the student will:

investigate and compare weather indicators used in weather forecasting by local people.

Background

See the High and Low Pressure Systems web page: http://www.bom.gov.au/lam/Students_Teachers/pressure.shtml for the content that the students will access.

Resources and actions

Print off the student worksheet and photocopy one for each student: http://www.bom.gov.au/lam/Students_Teachers/Worksheet23.shtml.

Questions and solutions

1. What would happen to the air pressure as a high moved across an area?

   As a high approaches an area, air pressure will rise and then fall as the high passes.

2. What would happen to the air pressure as a low moved across an area?

   As a low approaches an area, air pressure will fall and then rise as the low passes.

3. What are the highest and lowest air pressures shown on the map below?

   The air pressures shown on the map range from 1028 hectopascals (highest) to 1000 hectopascals (lowest).

4. A cold front is passing over South Australia . What major city will it pass over next?

   Adelaide.

5. In which direction does the wind/air spiral in a low pressure region (in the southern hemisphere)?

   The wind/air spirals in a clockwise direction in a low pressure region (in the southern hemisphere).

6. In which direction does the wind/air spiral in a high pressure region (in the southern hemisphere)?

   The wind/air spirals in an anticlockwise direction in a high pressure region (in the southern hemisphere).

7. What does the weather map tell you about the weather in Adelaide? How would you dress if you where going to be outside?

   The weather maps tells us that Adelaide is about to experience a cold front. As the front approaches and passes over, you would notice the following things:

   - rain (thunderstorms often occur)
   - change of wind direction
   - drop in temperature
   - generally an increase in relative humidity

Time

30 minutes.

Assessment Task

Q. 1, 2, 3, 4, 5 and 6.