

Lesson Plans: Weather and Climate Statistics

Objective

The objective is to enable students to understand the difference between weather and climate, and to be able to interpret climatic statistics provided.

Materials

Each student or group of students will need the following:

- Student worksheet (one per student)
- Chart or individual sheets showing mean monthly values of temperature and rainfall for the previous year and for the last 30 or 40 years (averaged out) * normal graph paper

Important Points to Understand

- Definitions of weather and climate.
- In relation to climatic statistics, average monthly temperatures are obtained by adding up all daily temperatures (available average temperature from the local weather services for the month and then dividing by the number of days in that month). To get the long-term average or mean, for a particular month, the average monthly temperatures - for that month are added by for the last 30 or 40 years, and then divided by 30 or 40 as appropriate.
- It is a similar procedure for monthly rainfall figures, except that only the total for each month is needed. To get the long-term mean total rainfall for a month such as September all September totals for the last 30 or 40 years are added up and divided by 30 or 40.

Preparation

It is important to obtain the weather records and climate data set from the local meteorological service beforehand if the school does not have them handy. Subsequent explanation on climate parameters by the teacher is also necessary. Although, this activity is mostly based upon the definitions of weather and climate, students who take part in it should be aware of the fundamental understanding of general topics.

Procedure

1. Meanings of weather and climate are clarified orally.
2. Students carry out the first activity on the worksheet (word completion).
3. Students can work in pairs or small groups to answer question 2 of the worksheet.
4. Question 3 can be given as follow-up work.

The worksheet is available in a printable [pdf version](#).