

Exercise A: Demonstrating Climate Change for Yourself

(You will need access to the internet and a spreadsheet application eg Excel)

Geographers are interested in climate change because it involves the interaction between the earth and the human population. Much of the information that is available about climate change, however, is written by climatologists and scientists who are doing atmospheric and environmental research.

In this exercise you can use historical climate data from the Meteorological Office website, a computer with a spreadsheet application such as Microsoft Excel and just a little knowledge basic maths to build your own graph of climate change in the UK.

Step 1: Visit the following web page on the Met Office website.

<http://www.metoffice.gov.uk/climate/uk/stationdata/index.html>

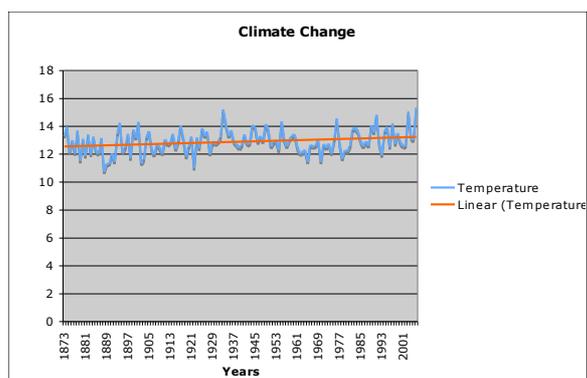
Step 2: Choose a UK location. Note that some locations have records stretching further into the past. A bigger data set will make a more interesting graph.

Look over the weather data and then transfer the data into a spreadsheet application like Microsoft Excel in two columns. You will have to choose on particular month to start off with such as June for Mid Summer. If you don't have a spreadsheet application, you can make the graph using Yahoo Documents, if you register with them. You will not, however, be able to add the trend line using this online application.

Put the years in column 1, and the temperature for June of each year into column 2. If you are a wiz at Excel, you might be able to find ways to do this more quickly. Ask your teacher or IT support to help you with this if you want to learn a short-cut. The top part of your spreadsheet should look something like this:

Then, using the graph wizard make a line chart which should look something like this the chart above.

Then using the add trend line option, under the Chart menu in Excel, insert a line showing the linear trend in the data. In the example above the data quite



clearly shows that there has been a consistent trend in rising temperatures during the time covered by the chart. Copy and paste your graph onto a sheet which clearly states the location of the reading and see if you can calculate the gradient of the line.

Make a poster showing the pattern of climate change designed to heighten awareness of global warming.

If you are having difficulties seek the assistance of your teacher, the IT staff or Excel Help which can be found under the help menu at the far right of the menu.