

IN THE CLASSROOM

CLIMATE DATA



KSI-2
KS3

Recommended for

KS2–KS3 (History, Science, IT)

Learning objectives

- Reflect on data gathered at Osborne as part of your visit.
- Contextualise students' recordings through investigating historical climate data.
- Analyse data to investigate patterns and trends to draw conclusions about changes over time.

Time to complete

Approx. 60 minutes



A photograph showing the weather from Osborne's beach.

SUMMARY

While at Osborne, students recorded temperatures (on page 14) and noted aspects of the weather (on page 15). The Isle of Wight is a microclimate in the UK, and supports a delicate ecosystem. This computer-based activity will enable students to put their recordings of weather data into context using information collected by the Met Office. This will enable them to investigate how temperature and climate are changing over time.

Students can use this data to analyse their findings and draw conclusions from the information presented to them.

USING DATA

To find the historical data:

Go to the Met Office website and search for 'historic station data'. Select the weather station Hurn, the closest weather station to the Isle of Wight.

Click on 'view Hurn data'. Download and edit the data, following the instructions on page 31.

Some questions you might wish to include are:

- Which are the warmest and coldest temperatures recorded? When were they recorded? Why could that be?
- Are there any patterns in the graph, such as when it gets warmer or cooler regularly?
- Is there a pattern in the temperatures getting warmer since this information was first recorded? What might be causing this?
- If the group have lots of different temperatures recorded from their visit, discuss what may have caused these variations; for example, wind chill, whether the sun was shining or hidden behind clouds.

MORE LEARNING IDEAS

Once students have collected and analysed the data, they could write a report to reflect their findings and predict what may happen in the future based on the evidence.

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TEACHERS' NOTES

In order to make this data useable in class, copy and paste the data into an Excel spreadsheet making sure that each data point goes into a different cell, then:

- Delete the columns for: af days, rain and sun hours.
- Enter the year your group visited in the YYYY column.
- Enter the month your group visited in the MM column (1 would mean January, 12 would mean December).
- In the column labelled tmaxDegC, enter the warmest air temperatures recorded.
- In the column labelled tminDegC, enter the lowest air temperatures recorded.
- Use the insert > line chart tool to create a graph showing the different temperatures as they were recorded.

The information from the Met Office only goes back to 1957, so it doesn't provide a complete picture. Explore the question 'Where might we find older examples of weather data?'

Answers may include: Weather data may be found in diaries and letters that were kept by farmers or gardeners. In Osborne's case, Queen Victoria kept diaries and she often wrote about the weather; she regularly used 'fine morning' to describe the weather at Osborne. Photographs and paintings may also provide information about historical weather data, however, these may not be too helpful due to the artistic licence the creator may have used when making their work.