

# Weather Tracker - monitoring weather for experiments

## Aims:

To provide weather data over a period of time in conjunction with an indoor or outdoor experiment.

There will be times when the Weather Tracker is ideal for monitoring environmental conditions for experiments over a long or short period of time.

### How cool does it get in the classroom overnight in winter?

Set up the Weather Tracker on a bench away from any radiators and near the window and leave overnight. Download the data in the morning and check the graphs. What is the temperature profile like? How quickly does it cool down at night and heat up in the morning? Can you tell when the heating comes on and off? Are there any significant changes in the other measurements? How do you account for these changes?

### Are the school grounds in a frost hollow or heat island?

Set up the Weather Tracker on the tripod in a secure place in the school grounds on a calm day and leave overnight. Download the data in the morning and check the temperature, wet bulb, dewpoint and any wind speed / wind chill graphs. What does this tell you about the changes at the site? If you have more two or more Weather Trackers set them up in different locations overnight. Monitor each Weather Tracker's measurements on graphs and try to account for the differences.

## Setting up the Weather Tracker for continuous monitoring

Make sure that correct date and time has been set

[Date and time set-up screen](#)

Switch auto recording 'on' and set a suitable interval for recording

[Memory options, Autostore, on](#)

[Memory options, Store Rate, choose your interval](#)

Interval	Recording period on full battery
5 minute intervals	20 hours, 50 mins
10 minute intervals	1 day, 17 hours, 40 mins
20 minute intervals	3 days, 11 hours, 20 mins
30 minute intervals	5 days, 5 hours

Switch manual recording 'off' so that you can take extras readings when necessary.

[Memory options, Manual store, off](#)

The Weather Tracker will record at the set intervals **even when it is switched off**.

Refer to the [Weather Tracker - Downloading Data Guide](#) to transfer the records to a computer at the end of the day and graph the results.