

## 5 words to remember

**analogue:** continuously changing values, such as temperature or pressure

**data:** information that is collected for analysis, often, but not always, in the form of numbers

**digital:** storing, processing or transmitting information as numbers, such as temperature to the nearest degree

**sensor:** a device used to get data from the real world into a computer; data loggers contain sensors

**spreadsheet:** a computer program used to record, display and work with data in table format (rows and columns)

## People: Meteorologists

Meteorologists are special scientists who measure the weather and use this **data** to make predictions. This information is presented as a weather forecast.



## Key takeaways

- ❑ To create accurate weather forecasts, meteorologists must first measure and analyse weather data and patterns.
- ❑ A range of different instruments are used to measure the weather. Some of these are **digital**, while others are **analogue**.
- ❑ Data loggers, as the name suggests, log weather data. They contain **sensors**, which measure data such as temperature, and store readings on a computer chip. This information can then be transferred to a computer.
- ❑ **Spreadsheets** are an effective way of recording and analysing weather data. The data is usually in the form of numbers, and this can be used to draw different weather charts and graphs.
- ❑ Different types of graphs and charts can be used based on the data selected.

## Knowledge check: Weather tools

Meteorologists use a range of different tools to measure the weather.

**Test yourself:** Can you name and explain all the weather tools below?

thermometer	data logger	temperature sensor
cup anemometer	rain gauge	barometer



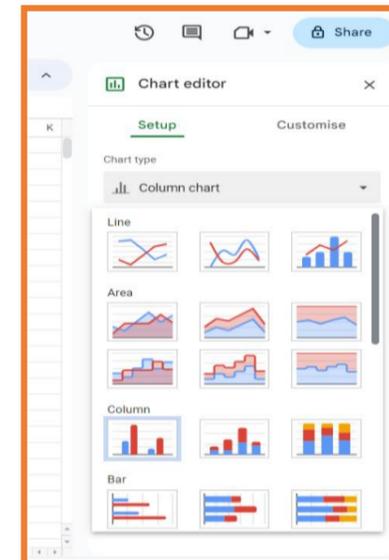
## Knowledge check: Spreadsheets

**Test yourself:** If you wanted to show the rainfall across each day of the week and the daily average temperature on the same graph, which chart or graph type would you select?

- A pie chart
- A bar–line combination graph
- A horizontal bar chart
- A scatterplot

**Test yourself:** Looking at the four icons on the toolbar below.

- Which icon would you use for filtering data?
- Which icon would you use to create graphs from selected data?



The type of chart or graph can be selected or changed depending on the data it is showing, for example temperature data would be best shown on a line graph, while a bar chart would be better to show rainfall across a week.

Once a graph has been created, it can be edited and customised by adding headings and changing styles or colours.

- ❑ Once weather patterns have been analysed, this data can be used to predict future weather. This information is presented as a weather forecast.
- ❑ Presentation software, such as Google Slides or Microsoft PowerPoint, are ideal for creating a weather presentation. Presentation slideshows can contain key information, charts and photographs.



**Top tip:** Inserting the image as a background automatically fits it to the entire slide.

