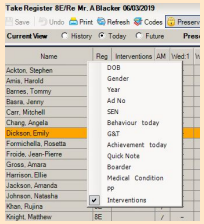
DATA COLLECTION

Asking questions: Data gathered over time can be used to answer important questions.

Think about the the register. This has data input every day. Mrs Plant uses it to find out who needs an attendance certificate.



Before collecting data, we need to carefully consider which questions we are trying to answer.

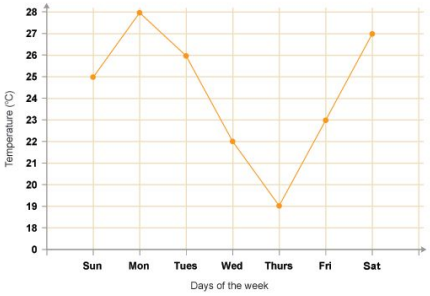
SENSORS

Our senses detect things in our environment. Computers, phones and tablets have input sensors including microphones, cameras and touchscreens.

DATA LOGGERS

These have sensors built in to detect and record data.

> heat sensors (temperature)
> light sensors (brightness)
> sound sensors (volume)



Which cup will keep my tea warm the longest?

Do different colour filters let different amounts of light through?

Which musical instrument is the loudest?

REAL LIFE DATA LOGGERS

Your smartwatch is a data logger! It **senses** movement and **logs** the number of steps you take. From that **data**, it can **interpret** how much energy you are using and even whether you get enough sleep!

VOCABULARY

data	raw numbers and figures
information	what we understand from the data
collection	we can collect data in lots of different ways
sensor	a device that can detect input (sound, temperature, light) like our senses
logging	data can be logged or recorded by writing it down, or using software
analysis	looking at the data to try to answer a question. Scientists use charts and graphs to help them see the data clearly
interpret	using what you have found out to answer your question or draw conclusions
conclusion	deciding what the data shows and whether it answers your questions