Year 4 Spring 1 - Computing – Data Handling: Investigating Weather

Big Question

What would it be like to be a weather forecaster?

Key Vocabulary for the unit:

Algorithm: A sequence of instructions which, when followed, solve a problem.

Automated machine: Works without the need for human interaction, after being programmed to carry out a specific job.

Climate: The weather conditions you would normally expect in a location.

Forecast: To predict what might happen or occur as the result of something in the future (for example, weather forecasts)

Log data: A record of information that has been collected by a person or a computer, while monitoring something.

Sensor: A tool or device that is designed to monitor, detect and respond to changes for a specific purpose, such as a smoke alarm, which rings if smoke is detecrted in the air.

Source: Where something comes from, for example milk is a source of calcium.

Spreadsheet: A file where you can input, sort and analyse data across a series of cells.

Temperature: How hot or cold something is.

Weather: The current condition of the atmosphere around the world, such as the temperature, rain, wind, clouds and sunshine.

Powerful knowledge/skills for this unit:

- To know that computers can use different forms of input to sense the world around them so that they can record and respond to data ('sensor data').

- To know that a weather machine is an automated machine that respond to sensor data.

- To understand that weather forecasters use specific language, expression and pre-prepared scripts to help create weather forecast films.

What I should already know from Year 3:

- To know that a database is a collection of data stored in a logical, structured and orderly manner.

- To know that computer databases can be useful for sorting and filtering data.

- To know that different visual representations of data can be made on a computer.

Useful diagrams for the unit:

A weather station uses a system of sensors to monitor the atmosphere:
Anemometer · Temperature and humidity probes · Recording data · Solar panel · Rain gauge

Weather satellites collect and send data back down to Earth, after monitoring the atmosphere from space.
Altimeter · GPS · Solar array · Transmitting data · Solar array

When filming remember to:

| Don't film into the light e.g by a window | Don't stand too close or too far away | Make sure your surroundings are quiet | Let the presenter know when to start by saying, "3,2,1 action!" | Keep the presenter in the middle of the screen – no chopped off heads! |