

### Prior Knowledge

I am able to **explore a record database** to find out information  
I understand the **benefits of using a computer to create charts and databases**  
I understand that **search engines store information in databases**  
I can begin to **present data** in a number of ways to convey information  
I can **enter data** into a database package

### NC Learning Objectives

Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content  
Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information

### What will I know by the end of this unit?

I am aware of the **difference between data and information**  
I can use the **'sort' feature in a flat file** to refine searches for information  
I can begin to **use filters in a database** to find out information and be able to **perform single criteria searches** for information (e.g. Wikipedia)  
I can **use a template to design a database** with support and **I can draw conclusions from the information stored in a database, table or chart**

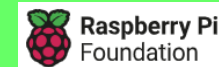
**This unit should be taught alongside the Maths unit:  
Statistics**



### Vocabulary

**Information-** facts about something or someone  
**Data –** facts collected together to look at closely (examine) numbers, facts, figures  
**Collection-** the action or process of collecting someone or something.  
**Sensor-** a device which detects or measures a physical property and records, indicates, or otherwise responds to it.  
**Analysis –** detailed examination of something.  
**Data Logger –** electronic devices which automatically monitor and record environmental parameters over time,  
**Software –** the programs and other operating information used by a computer.  
**Interpret –** explain the meaning of something  
**Conclusion -** the end or finish of an event, process, or text.

### Scheme of Lessons-



In this unit, learners will consider how and why data is collected over time. Learners will consider the senses that humans use to experience the environment and how computers can use special input devices called sensors to monitor the environment. Learners will collect data as well as access data captured over long periods of time. They will look at data points, data sets, and logging intervals. Learners will spend time using a computer to review and analyse data. Towards the end of the unit, learners will pose questions and then use data loggers to automatically collect the data needed to answer those questions.

#### Lessons:

- 1) Answering questions- Learners will consider what data can be collected and how it is collected.
- 2) Data Collection-Learners will build on the idea of collecting data over time, and be introduced to the idea of collecting data automatically using computers such as data loggers.
- 3) Logging-Learners will explore how data loggers work.
- 4) Analysing data- Learners will open an existing data file and use software to find out key information.
- 5) Data for answers- Learners will think about questions that can be answered using collected data.
- 6) Answering my questions- Learners will access and review the data that they have collected using a data logger.