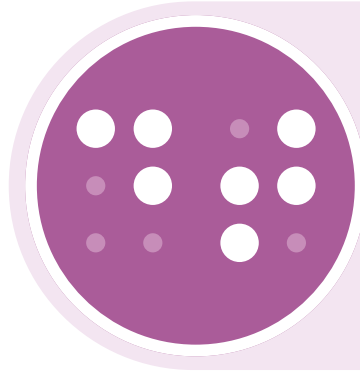# Digital Technologies
Key Concepts

Digital Systems
A system that processes data in binary, **made up of** hardware, controlled by software, and connected to form networks.

Data Representation
How **data** is represented and structured **symbolically** for storage and communication, **by people** and in **digital systems**.

Data Collection
Numerical, categorical, or structured values **collected** or **calculated** to create information, e.g. the Census.

Data Interpretation
The process of **extracting meaning** from data. Methods include **modelling**, statistical **analysis**, and **visualisation**.
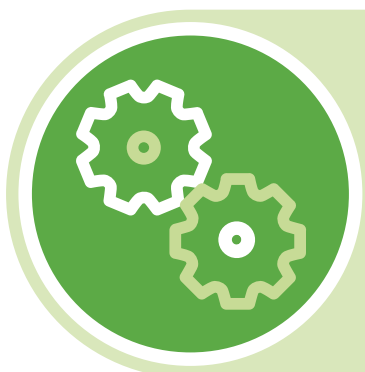
Specification
Defining a **problem** precisely and clearly, **identifying** the requirements, and **breaking it down** into manageable pieces.

Algorithms
The precise **sequence of steps** and decisions needed to solve a problem. They often involve **iterative** (repeated) processes.

Implementation
The **automation** of an algorithm, typically by writing a **computer program (coding)** or using appropriate **software**.

Impact
Analysing and predicting how existing and created systems meet needs, affect people, and change society and the world.

Interaction
How users **experience** and **interface** with digital systems, and how we use them to **communicate** and **collaborate**.

Abstraction
Hiding details of an idea, problem or solution that are not relevant, to **focus** on a **manageable number of aspects**.

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