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.