THE GRANGE SCHOOL

IT and Computing Department

YEAR 7

Key Vocabulary Booklet

2026–2027



Vocabulary Tiers

Tier 1
Everyday words

Tier 2
Academic words

Tier 3
Subject Specific words

Name: _____

Form: _____

Introduction to IT and Computing

Health and Safety

Word	Tier	Definition
Respect	2	Treating others and equipment with care and consideration.
Hazards	2	Potential sources of danger or harm in a workspace.
Repetitive strain injury	3	Pain caused by repeated movements, e.g. typing for long periods.

Files, Folders and School Resources

Word	Tier	Definition
Internet	1	A global network connecting millions of computers worldwide.
Communicating	2	Sharing information between people using technology.
Files and folders	2	Digital containers used to organise and store data on a computer.
File extensions	3	Letters after a dot in a filename that show the file type, e.g. .docx, .png.
Backing up	2	Making a copy of data to protect against loss.

Passwords

Word	Tier	Definition
Password	1	A secret word or phrase used to access a computer or account.
Special character	2	A symbol such as @, #, or ! used to make passwords stronger.
Number	1	A digit (0–9) used in passwords, codes, or calculations.
Verification	2	Checking that data has been entered correctly by asking the user to confirm.
Validation	2	An automatic check that data meets certain rules before being accepted.

Email Etiquette and Written Communication

Word	Tier	Definition
Email	1	Electronic messages sent and received over the internet.
Online	1	Connected to the internet.
Communication	2	The exchange of information between people.
Scenario	2	A description of a possible situation used for learning or testing.

Understanding Computers

Elements of a Computer

Word	Tier	Definition
Hardware	2	The physical parts of a computer you can touch, e.g. keyboard, monitor.
Software	3	Programs and applications that run on a computer.
Input	1	Data or instructions entered into a computer, e.g. typing on a keyboard.
Output	1	Information produced by a computer, e.g. text on a screen or sound from speakers.
Storage	1	Saving data so it can be used later, e.g. on a hard drive or USB stick.
Central Processing Unit	3	The 'brain' of the computer that carries out instructions (also called the CPU).

The CPU

Word	Tier	Definition
Random Access Memory (RAM)	3	Temporary memory used by the CPU to store data while programs are running.
Read Only Memory (ROM)	3	Permanent memory that stores instructions needed to start up the computer.
Central Processing Unit (CPU)	3	The 'brain' of the computer that carries out instructions.
Fetch	1	The first stage of the CPU cycle — retrieving an instruction from memory.
Decode	3	The second stage of the CPU cycle — interpreting what the instruction means.
Execute	2	The third stage of the CPU cycle — carrying out the instruction.

Storage Devices

Word	Tier	Definition
Storage	1	Saving data so it can be used later, e.g. on a hard drive or USB stick.
Optical media	3	Storage that uses laser light to read data, e.g. CDs, DVDs, Blu-ray.

Convergence and New Technologies

Word	Tier	Definition
Convergence	2	Combining multiple technologies into a single device, e.g. a smartphone.
Technology	1	Tools, machines, and systems created to solve problems or perform tasks.
Moore's Law	3	The observation that computing power roughly doubles every two years.

Computational Thinking 1

Intro to Flowcharts

Word	Tier	Definition
Algorithm	3	A step-by-step set of instructions to solve a problem or complete a task.
Flowchart	3	A diagram using shapes and arrows to show the steps in a process.
Start/Stop	1	Oval shapes in a flowchart that mark the beginning and end of a process.
Process	1	A rectangle in a flowchart representing an action or calculation.
Decision	1	A diamond shape in a flowchart where a yes/no question is asked.
Mimic	2	A simulated environment used to test flowchart programs.

Sequencing with Flowcharts

Word	Tier	Definition
Sequence	2	Instructions carried out one after another in order.
Output	1	Information produced by a computer, e.g. text on a screen or sound from speakers.
Multiple instructions	2	More than one command carried out in a program.

Application of Computational Thinking (Block)

Word	Tier	Definition
Sequence	2	Instructions carried out one after another in order.
Selection	2	A decision point in a program where different paths are followed based on a condition.
Iteration	2	Repeating a set of instructions, also known as a loop.

Application of Computational Thinking (Python)

Word	Tier	Definition
Coding	3	Writing instructions in a programming language for a computer to follow.
Algorithm	3	A step-by-step set of instructions to solve a problem or complete a task.

Application of Computational Thinking (Turtle)

Word	Tier	Definition
Turtle	1	A Python library that draws shapes by moving a cursor on screen.
Imports	2	Code that brings in extra features or libraries into a program.
Loop	1	A section of code that repeats until a condition is met.
Patterns	1	Repeated arrangements or sequences found in data or designs.

Machine Learning and AI

Intro to Artificial Intelligence

Word	Tier	Definition
Artificial Intelligence (AI)	3	Computer systems designed to perform tasks that normally require human intelligence.
Narrow AI	3	AI designed for one specific task, e.g. a voice assistant or chess program.
General AI	3	A theoretical form of AI that could perform any intellectual task a human can.

Machine Learning

Word	Tier	Definition
Machine Learning (ML)	3	A type of AI where computers learn from data without being explicitly programmed.
Supervised Learning	3	A type of machine learning where the computer is trained using labelled examples.
Reinforcement Learning	3	A type of machine learning where the computer learns by trial and error with rewards.

Ethical Implications of AI

Word	Tier	Definition
Bias (in AI)	2	When an AI system produces unfair results due to biased training data.
Privacy	1	The right to keep personal information safe and under your control.
Job Displacement	2	When jobs are lost because machines or AI take over human tasks.

Introduction to Spreadsheets

Intro to Spreadsheets

Word	Tier	Definition
Row	1	A horizontal line of cells in a spreadsheet.
Column	1	A vertical line of cells in a spreadsheet.
Cell	2	A single box in a spreadsheet where data is entered.
Formula	2	An instruction in a spreadsheet that performs a calculation, starting with =.

Working with Formulae

Word	Tier	Definition
Formula	2	An instruction in a spreadsheet that performs a calculation, starting with =.
Cell Reference	3	The address of a cell in a spreadsheet, e.g. A1 or B3.
Cell Range	3	A group of cells, e.g. A1:A10.

Creating Spreadsheet Models

Word	Tier	Definition
Models	2	Spreadsheet setups that represent real-world situations for testing scenarios.
What-If situations	2	Using a spreadsheet model to explore what happens when values change.

Creating Spreadsheet Charts

Word	Tier	Definition
Graphs	2	Visual representations of data using bars, lines, or other shapes.
Charts	2	Another name for graphs — visual displays of data for easier understanding.