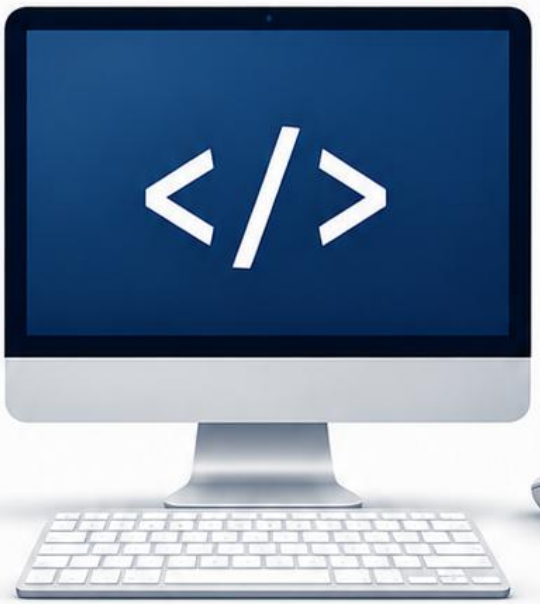
THE GRANGE SCHOOL

IT and Computing Department

YEAR 8

Key Vocabulary Booklet

2026–2027



Vocabulary Tiers

Tier 1
Everyday words

Tier 2
Academic words

Tier 3
Subject Specific words

Name: _____

Form: _____

Instructions: Learn the keywords for computing. There are some missing words. Write in a definition for the missing words and provide examples where possible. List any keywords you think should be included in this booklet.

Block Programming

Sequencing

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.
Iteration	3	Repeating a set of instructions, also known as a loop.
Selection	1	A decision point in a program where different paths are followed based on a condition.
Sequence	2	Instructions carried out one after another in order.

Variables

Word	Tier	Definition
Variables	2	Named storage locations in a program that hold data which can change.
Conditional logic	3	Code that makes decisions based on whether a condition is true or false.
Loop	1	A section of code that repeats until a condition is met.

Selection

Word	Tier	Definition
Sequence	1	Instructions carried out one after another in order.
Function	2	A reusable block of code that performs a specific task.
Argument	2	A value passed into a function to be used in its instructions.
Outputs	1	The results produced by a program or function.

Operators

Word	Tier	Definition
Input	1	Data or instructions entered into a computer, e.g. typing on a keyboard.
String	2	A data type for text, e.g. "hello" or "Year 8".
Integer	2	A whole number data type, e.g. 5, 42, –3.
Float	1	A decimal number data type, e.g. 3.14 or 9.99.

Textual Programming (Python I)

Intro to Python

Word	Tier	Definition
Python	2	A popular text-based programming language known for its readable syntax.
Input	1	Data or instructions entered into a computer, e.g. typing on a keyboard.
Variable	2	A named storage location in a program that holds data which can change.
Output	1	Information produced by a computer, e.g. text on a screen or sound from speakers.

Input, Output, Variables

Word	Tier	Definition
Input	1	Data or instructions entered into a computer, e.g. typing on a keyboard.
Variable	2	A named storage location in a program that holds data which can change.
Output	1	Information produced by a computer, e.g. text on a screen or sound from speakers.

Data Types and Maths

Word	Tier	Definition
Input	1	Data or instructions entered into a computer, e.g. typing on a keyboard.
String	2	A data type for text, e.g. "hello" or "Year 8".
Integer	2	A whole number data type, e.g. 5, 42, −3.

Selection

Word	Tier	Definition
Data type	3	The category of a value, e.g. string, integer, or float.
Integer	2	A whole number data type, e.g. 5, 42, −3.
Variable	2	A named storage location in a program that holds data which can change.

Networks

The Internet

Word	Tier	Definition
Internet	1	A global network connecting millions of computers worldwide.
Network	2	Two or more computers connected together to share data and resources.
World Wide Web (WWW)	3	A system of web pages accessed via the internet using a browser.
Domain	3	The human-readable address of a website, e.g. bbc.co.uk.

Connectivity

Word	Tier	Definition
Cable	1	A physical wire used to connect devices in a wired network.
Wireless	1	A connection that uses radio waves instead of cables.
Bandwidth	3	The amount of data that can be transferred over a network in a given time.

Topologies

Word	Tier	Definition
Local area networks	3	A network covering a small area such as a school or office (LAN).
Wide-area network	3	A network covering a large geographical area, e.g. the internet (WAN).
Network Interface Card	3	Hardware inside a device that allows it to connect to a network (NIC).

Network Types

Word	Tier	Definition
Client–server model	3	A network where a central server provides services to client devices.
Peer-to-peer network	3	A network where all devices share resources equally without a central server.
Cloud computing	3	Using remote servers over the internet to store and process data.

Encryption

Word	Tier	Definition
Encryption	2	Scrambling data into an unreadable format to keep it secure.
Caesar cipher	3	A simple encryption method that shifts each letter by a fixed number of positions.
Decrypt	2	Converting encrypted data back into a readable format.

Cybersecurity

Computer Misuse

Word	Tier	Definition
Malware	3	Malicious software designed to damage, disrupt, or gain unauthorised access.
Hacking	3	Gaining unauthorised access to a computer system.
Unauthorised access	3	Accessing a computer system or data without permission.

Protecting Personal Data

Word	Tier	Definition
Identity theft	2	Stealing someone's personal information to pretend to be them.
Data Protection Act	2	UK law that controls how personal data is collected, stored, and used.
Encryption	3	Scrambling data into an unreadable format to keep it secure.
Shoulder surfing	3	Watching someone enter private information, e.g. looking at their PIN.

Passwords and Email Scams

Word	Tier	Definition
Phishing	3	A scam that tricks people into revealing personal information via fake emails or websites.
Trojan horse	3	Malware disguised as legitimate software to trick users into installing it.
Malware	3	Malicious software designed to damage, disrupt, or gain unauthorised access.
Advanced fee fraud	3	A scam asking for money upfront with the false promise of a larger reward.
Virus generated spam	3	Unwanted messages sent automatically by malware on an infected device.

Copyright

Word	Tier	Definition
Copyright	2	Legal protection giving creators control over how their work is used.
Breach	2	A violation of a law, rule, or agreement.
Plagiarism	2	Copying someone else's work and presenting it as your own.

Health and Safety

Word	Tier	Definition
Health and Safety	1	Rules and practices to prevent injury or illness in the workplace.
RSI	3	Repetitive Strain Injury — pain from repeated movements like typing.
Regulations	2	Official rules or laws that must be followed.

E-safety, Machine Learning & AI

Social Media and Digital Footprint

Word	Tier	Definition
Privacy settings	3	Controls on apps and websites that limit who can see your information.
Online identity	2	The image of yourself you create through your online activity.
Identity theft	2	Stealing someone's personal information to pretend to be them.
Social media	1	Websites and apps where people share content and communicate, e.g. Instagram.
Digital footprint	3	The trail of data you leave behind when using the internet.

Data Security and Online Security

Word	Tier	Definition
Password	1	A secret word or phrase used to access a computer or account.
Hacking	3	Gaining unauthorised access to a computer system.
Phishing	3	A scam that tricks people into revealing personal information via fake emails or websites.
Spam	3	Unwanted messages or emails, often sent in bulk.

Plagiarism

Word	Tier	Definition
Citation	2	A reference to the source of information used in your work.
Plagiarism	2	Copying someone else's work and presenting it as your own.
Paraphrase	2	Rewriting someone else's ideas in your own words.

Machine Learning and AI

Word	Tier	Definition
Artificial Intelligence (AI)	3	Computer systems designed to perform tasks that normally require human intelligence.

Word	Tier	Definition
Machine Learning (ML)	3	A type of AI where computers learn from data without being explicitly programmed.
Programming	3	Writing code to create software or solve problems.