

Year 10&11 Computing Vocabulary List

(Tier 2 and Tier 3)



Command words:

Add - Join something to something else so as to increase the size, number, or amount.

Analyse - Break down in order to bring out the essential elements or structure. Identify parts and relationships, and interpret information to reach conclusions.

Annotate - Add brief notes to a diagram or graph.

Calculate - Obtain a numerical answer showing the relevant stages in the working.

Compare - Give an account of the similarities and differences between two (or more) items or situations, referring to both (all) of them throughout.

Complete - Provide all the necessary or appropriate parts.

Convert - Change the form, character, or function of something.

Define - Give the precise meaning of a word, phrase, concept or physical quantity.

Describe - Give a detailed account or picture of a situation, event, pattern or process.

Design - Produce a plan, simulation or model.

Discuss - Offer a considered and balanced review that includes a range of arguments, factors or hypotheses. Opinions or conclusions should be presented clearly and supported by appropriate evidence.

Draw - Produce (a picture or diagram) by making lines and marks on paper with a pencil, pen, etc.

Evaluate - Assess the implications and limitations. Make judgements about the ideas, works, solutions or methods in relation to selected criteria.

Explain - Give a detailed account including reasons or causes.

Give - Present information which determines the importance of an event or issue, or to show causation.

How - In what way or manner; by what means.

Identify - Provide an answer from a number of possibilities. Recognise and state briefly a distinguishing factor or feature.

Justify - Give valid reasons or evidence to support an answer or conclusion.

Label - Add title, labels or brief explanation(s) to a diagram or graph.

List - Give a sequence of brief answers with no explanation.

Order - Put the responses into a logical sequence.

Outline - Give a brief account or summary.

Refine - Make more efficient, improve, modify or edit.

Show - Give steps in a derivation or calculation.

Solve - Obtain the answer(s) using algebraic and/or numerical and/or graphical methods.

State - Give a specific name, value or other brief answer without explanation or calculation.

Tick - Mark (an item) with a tick or select (a box) on a form, questionnaire, etc. to indicate that something has been chosen.

What - Asking for information specifying something.

Write/Rewrite - Mark (letters, words, or other symbols) on a surface, typically paper, with a pen, pencil, or similar implement/write (something) again so as to alter or improve it.

Key Terms:

Pseudocode - An artificial and informal text language that helps programmers develop algorithms

Instruction - A command that is given in order for a computer to do something

Sequence - Placing a set of instructions in an order

Procedure - Naming a sequence so that all the instructions will be executed when the name is entered

Flow chart - A tool to design an algorithm using a series of pre- defined symbols and arrows

Decision - Usually based on Boolean logic of either Yes or NO or TRUE or FALSE enables a flowchart or algorithm to branch depending upon conditions – Is it raining? YES then I will take my coat, NO then I will wear only a shirt

Binary - Number system of base 2. Only numbers used are 0 and 1. System used by computers.

Bit - Short for BINARY DIGIT is the smallest unit of data in a computer

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Nibble - Equal to 4 bits of data

Byte - Equal to 8 bits of data roughly enough to store one letter from the keyboard

Database - A persistent, organised collection of data stored digitally for a purpose

DBMS - Database Management System. Separate system to the data allowing manipulation of data.

Files, Records and Fields - The hierarchical structure of a database. A Field holds a single piece of data eg a first name, a colour, a month. A Record is a collection of related fields. A File contains all the related records for a business, a school, a sports club etc.

Query - A method of interrogating a database to find specific data where fixed criteria can be used

Database Form - Often used for data entry, a form displays all the fields for one record

Parameter Query - A selection query allowing variable criteria to be entered

Database Report - A way to present information from a database query

Spreadsheet - A software program presented in table format which allows the entry, analysis and manipulation of data. Often used to 'model' situations by testing 'what if' scenarios.

Cell, Column, Row - The names given to the individual 'boxes' on a spreadsheet and the vertical and horizontal divisions of cells on a sheet

Cell range - Where data in more than one continuous cell is selected the range is known from the top left cell to the bottom right cell separated by a colon eg B5:F8

Relative Cell reference - By default, references are relative and if copied across or down a row or column will change relative to the start point eg A1+B1 to A2+B2 etc

Absolute Cell reference - In situations where a single cell or range of cells must always be used the \$ sign is used in front of the column eg F6- \$g\$8 would become F7- \$g\$8 F8- \$g\$8. The F4 function key can be used as a shortcut key to convert a relative to an absolute reference

Formulae - A combination of cell references or numerical entries and numerical operators that calculate an answer to a problem viewable in the formula toolbar

mathematical operators and comparators - +, -, *, / =, =>, =<, <, !=

Function - Functions are special formulae which are programmed into EXCEL such as =SUM() which can be used to add a column or row of numbers by stipulating the cell reference of the first and last numbers. There are many of these.

Validation rule - Used when entering data to reduce the instances of data entry error and that the data is sensible according to certain rules. Eg a Range validation

check may be set to only accept data between 20 and 40. 30 will be accepted but 300 or 41 will be rejected.

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Internet - A global network of computers which can be accessed on any digital device with a cable or Wi-Fi connection.

Network - A computer network enables computers joined to the network to share data and devices

Ethernet and Wi-Fi - Access to a network –often with Internet connection – connected by either a series of cable (Ethernet) or ‘wireless’ using radio waves (Wireless-Fidelity)

LAN and WAN - Local Area and Wide Area networks. LANs usually connect computers within a building or office or school whilst WANs may connect smaller LANs via public systems such as the telephone system over a much wider area.

Network Topology - The different ways that computers can be connected in a network involving the computer, switches, links etc

Router - A networking device that forwards ‘data packets’ to the next part of the network in an efficient manner

Motherboard - A printed circuit board in a computer that holds most of the important circuitry to run the computer

Operating system - A software system that manages the hardware and other software programs used by the computer

Image - Any digital drawing or graphic or photograph

Vector Graphic - Images created using lines to create paths based on mathematical co-ordinates with defined start and end points. The ‘paths’ can be lines, squares, curves etc

Bitmap Graphic - Also known as a Raster Graphic, is composed of a matrix of dots with each dot corresponding to 1 pixel.

Pixel - Short for Picture Element, pixels are small dots that together make up a computer image.

Serif and Sans Serif fonts - Serif Fonts have ‘serif’ or a small line attached to the end of letters eg TIMES NEW - ROMAN as opposed to CALIBRI which is without ‘serifs’ hence sans serif

Resolution - The number of pixels per inch – the higher the pixels the better the quality the image but the larger the file size

Layering - Building an image by placing one graphic upon others to create a new image

White Space - Part of a graphical image with very little detail

Cursor - Indicates where the mouse pointer is on the screen or where the next character typed on the keyboard will be entered as text.