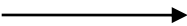
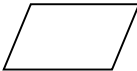
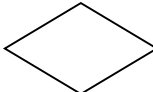


Year 7 Knowledge Organiser

Algorithms		Cyber Safety		Spreadsheets	
Algorithm	A sequence of instructions to solve a problem	Malware	Software that can harm devices, which is installed on someone’s device without their knowledge or consent.	Cell reference	Each cell is given a unique reference consisting of a number and letter (ie D5)
Decision	The program will do one thing or another based on something that has happened	Virus	Viruses attach (by copying themselves) to certain files. Users spread them by copying infected files and activate them by opening those files.	Row Column	Cells arranged horizontally. Cells arranged vertically
Efficiency	Achieving the same result with less instructions or effort	Worm	Worms are like viruses but they self-replicate without any user help, meaning they can spread very quickly	Formula	Calculations involving cell references and numbers
Flowchart	A diagram of an algorithm using shapes	Trojan	Trojans are malware disguised as legitimate software. Trojans don’t replicate themselves – users install them not realising they have a hidden purpose	Function	Built in calculations, eg SUM, AVERAGE that automatically perform calculations
Input	Allows the user to input data into the algorithm.	Spyware	Secretly monitors user actions (eg. key presses) and sends info to a hacker.	Format	How a cell or contents of a cell are presented: fill and text colours; number styles; alignment
Output	The result of an algorithm is outputted	Phishing	To obtain people’s information illegally online by pretending to be someone else.	Replicate	Copying a cell to other groups of cells. The formulas automatically change
Pseudo code	Fake code (written in English) to show how a problem is solved				
Flowcharts		Programming			
	Terminator symbols indicate the start and end of a flowchart.	Sequence	Ordered instructions.	String	Data type containing characters.
	Arrow , shows the flow of data through the flowchart	Selection	Choose between two options of code.	Integer	Data type containing whole numbers.
	Processing symbol represents a step where an action is done. Example “add 1 to score”	Iteration	Repeats lines of code.	Float / Decimal / Real	Data type containing decimal numbers.
	Input/ Output symbol represents when data is inputted or outputted to the process.	Inputs	Data received from the user.	Boolean	Data type containing True/False values.
	Decision indicates a question or branch in the process flow. There are usually 2 options “Yes, No” “True, False”	Outputs	Data displayed to the user.	Variables	Locations in memory which store values.