

**Spreadsheets** are used to store information and data. Once we have our information in a spreadsheet we can run powerful calculations, make graphs and charts and analyse patterns.

Other uses for spreadsheets –

- Modelling and Planning
- Home/Business Finance and Budgeting
- Wages/Invoices
- Predictions / Simulations / Calculations
- Creating charts and graphs

# Year 8 IT Knowledge Organiser

## Term 3+4

The screenshot shows an Excel spreadsheet titled 'chocolate model'. It has columns for months (January to June) and rows for different categories: Chocolate, Stock control, Profit/loss, and Total income from chocolate. Labels with arrows point to specific parts: 'Column' points to the month headers, 'Text Label' points to 'Chocolate', 'Row' points to the 'Stock control' section, 'Worksheet' points to the entire grid, 'Cell Reference' points to 'C38', 'Formula' points to '=SUM(C9:C13)', and 'Numeric Data' points to the numerical values in the 'Stock control' section.

<b>What is a Function?</b>	A <b>function</b> is a standard routine used to perform common tasks. It represents a complex formula that uses reserved words e.g. VLOOKUP, IF. A <b>function</b> performs a specific set of operations on its input values to produce a single output value.
<b>What is a Formula?</b>	Using <b>formulas</b> in <b>spreadsheets</b> can allow you to quickly make <b>calculations</b> and get totals of multiple cells, rows, or columns in a <b>spreadsheet</b> .
<b>Conditional Formatting</b>	is a tool that allows you to apply <b>formats</b> to a cell or range of cells, and have that <b>formatting</b> change depending on the value of the cell or the value of a formula. For example, you can have a cell appear bold only when the value of the cell is greater than 100.

<b>Common Formulas/Functions</b>	<b>= SUM</b>	Adds a range of cells together
	<b>= AVERAGE</b>	Finds an average for a range of cells
	<b>= MIN</b>	Returns the smallest value in range
	<b>= MAX</b>	Returns the highest value in a range
	<b>= COUNT</b>	Counts cells if they meet a condition

**Golden rule: every formula always starts with an =**

Cell references begin with a letter, and finish with a number. EG: **A1**

	A	B	C	D	E	F	G
1							
2							
3							
4							
5							

A range is a selection of cells. EG: **A2:F4**

	A	B	C	D	E	F	G
1							
2							
3							
4							
5							

Operators	
+	Adds two numbers / cells
-	Subtracts one cell or number from another
*	Multiplies two numbers/cells
/	Divides one number / cell from another one
<	Less than
>	Greater than
<=	Less than or equal to
>=	Greater than or equal to

<b>IF</b>	one of the logical <b>functions</b> , to return one value <b>if</b> a condition is true and another value <b>if</b> it's false. For example: <b>=IF(A2&gt;B2,"Over Budget","OK") =IF(A2=B2,B4-A4,"")</b>
<b>Count IF</b>	<b>=COUNTIF</b> (Where do you want to look?, What do you want to look for?)
<b>Auto SUM</b>	<b>Excel automatically</b> enters a formula (that uses the <b>SUM</b> function) to <b>sum</b> the numbers
<b>= COUNT</b>	Counts cells if they meet a condition