

What should I already know?

- Introduce \mathcal{A} Calculate. Spreadsheet navigation. Adding images.
- What is data? Representing data.
- Copying and pasting. Totalling tools. Addition. Table layout. Block graph
- Ways to represent data. Pictograms (\mathcal{A} Count). Binary trees (\mathcal{A} Question). Databases (\mathcal{A} Investigate).
- Pie charts and Bar graphs. Boolean comparison tools ($<=>$). Spin tool. Advanced mode. Cell references.
- Data representation in \mathcal{A} Graph. Use software to investigate data.
- Converting measures. Count tool. Formulae. Variables in formulae. Event planning.
- Data representation in \mathcal{A} Investigate.. Creating and interrogating data. Use of filter, sort and search.
- Use of \mathcal{A} Dos, saving, opening and editing work, sharing work, copying and pasting, mouse, keyboard and device skills..

What will I know by the end of the unit?

How do I use a spreadsheet to investigate the probability of the results of throwing many dice?

- You will create a spreadsheet to answer a mathematical question relating to probability..
- You will take copy and paste shortcuts.
- You will problem solve using the count tool.

How do I use a spreadsheet to calculate the discount and final prices in a sale?

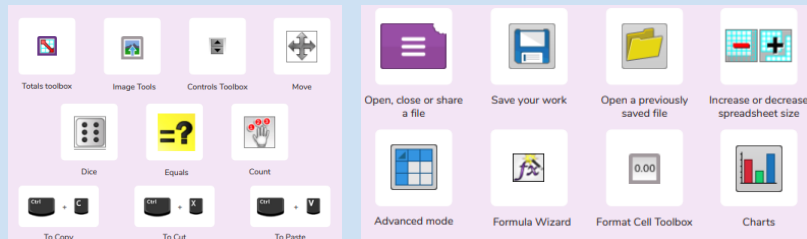
- You will create a machine to help work out the price of different items in a sale..
- You will use the formula wizard to create formulae...
- You will use a spreadsheet to solve a problem.

How do I use a spreadsheet to plan how to spend pocket money and the effect of saving money?

- You will use a spreadsheet to model a real-life situation and come up with solutions.
- You will make practical use of a spreadsheet to help plan actions.

How do I use a spreadsheet to plan a school charity day to maximise the money donated to charity?

- You will use a spreadsheet to model a real-life situation and come up with solutions that can be applied to real life..



Key Vocabulary

- **Rows** Boxes running horizontally in a spreadsheet. Data A collection of information, especially facts or numbers, obtained by observation, questions or measurement to be analysed and used to help decision-making.
- **Spreadsheet** A computer program that represents data in cells in a grid of rows and columns. Any cell in the grid may contain either data or a formula that describes the value to be inserted based on the values in other cells.
- **Columns** Boxes running vertically in a spreadsheet.
- **Formula** A group of letters, numbers, or other symbols which represents a scientific or mathematical rule. The plural of formula is formulae.
- **Advance mode** A mode of \mathcal{A} Calculate in which the cells have references and can include formulae.
- **Count (How Many) Tool** Counts how many of a variable there are in a spreadsheet.
- **Format Cell** The way that text looks. Formatting cells is helpful for interpreting a cell's contents for example you might want to format a cell to show a fraction e.g. $\frac{4}{5}$ or include units such as £ or \$.
- **Move cell tool** Allows selected cells to be draggable.
- **Budget** The amount of money available to spend on a project
- **Dice Tool** Simulates the roll of a die to a random number between 1 and 6 when you click on it.
- **Formula Bar** An area of the spreadsheet into which formulae can be entered using the '=' sign to open the formula.
- **Probability** The extent to which an event is likely to occur, measured by the ratio of the favourable cases to the whole number of cases possible.
- **Chart** A diagram that represents data. Charts include graphs and other diagrams such as pie charts or flowcharts.
- **Expense** A cost associated with a project.
- **Formula Wizard** Helps a user create formulas which perform calculations on selected cells. For example, adding, multiplying, average, total.
- **Profit** Money that is earned in trade or business after paying the costs of producing and selling goods and services.

Key Questions

- How would you add a formula so that the cell shows the total of a column of cells?

Use the formula wizard advanced total tool or type a formula into the cell by using the '=' symbol, mathematical operators and cell references.

- What is a computational model and what it can be used for?

Modelling in Computing means creating or using a simulation (a model) of a real-life situation, on a computer. It represents the data of a situation. For example: budgeting for a party; working out how big a field needs to be for a certain number of animals; working out the best price for an item or using the existing data to predict what time your shadow will be a certain length.

- If you were going to use a spreadsheet to plan your dream holiday, what data would you collect to cost the trip?

Ideas could include: Travel; comparing the cost of different methods, airports, airlines, different companies and discounts such as rail cards. Cost of accommodation of different types, trips out, food, passports, immunisations.

Purple Mash Resources

- \mathcal{A} Calculate.



\mathcal{A} Calculate