## Knowledge Mat – Spreadsheets

| Subject Specific Vocabulary | | | | Sticky Knowledge |
|---|---|---|---|---|
| **Advanced mode** | A mode in 2claulcte in which the cells have references and can include formulae. | **Move cell tool** | This tool makes a cell's contents moveable by drag-and-drop methods. | To use formulae within a spreadsheet to convert measurements of length and distance. |
| **Random tool** | Click to give a random value between 0 and 9 to the cell. | **Rows** | Vertical reference points for the cells in a spreadsheet. | To use the count tool to answer hypotheses about common letters in use. |
| **Average** | Symbols used to represent comparing two values. | **Timer** | When placed in the spreadsheet, click the timer adds 1 to the value of the cell to its right every second until it is clicked again. | To use formulae to calculate area and perimeter of shapes. |
| **Columns** | Vertical reference points for the cells in a spreadsheet. | **Spin tool** | Clicking on this in a cell will increase or decrease the value in the cell by the right by 1. | To use a spreadsheet to model a real-life situation. |
| **Cells** | An individual section of a spreadsheet grid. It contains data or calculations. | **Equals tool** | Tests whether the entered calculation in the cells to the left of the tool has the correct answer in the cell to the right of the tool. | To create formulae that uses text variables. |
| **Spreadsheet** | A computer program that represents information in a grid or rows and columns. | **Charts** | Vertical reference points for the cells in a spreadsheet. | To use a spreadsheet to help plan a school cake sale. |
| **Formula Wizard** | The wizard guides you in creating a variety of formula for a cell such as calculations, totals, averages, minimum and maximum for the selected cells. | **Formula** | Use the formula wizard or type into the formula bar to create a formula in a cell, this will calculate the value for the cells based upon the value of other cells in the spreadsheet. | |

| Key questions |
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| How would you add a formula so that the cell shows the product of two other cells? Click on the cell where you want the product to be displayed then click the formula wizard button. Click on the cell that contains the first number. Choose the ( x ) operation then click on the second number. Click OK. |
| What would you use in 2Calculte to have a cell that automatically calculates the number of days since a certain date? You could use the formulae and the totaling tools. To make the spreadsheet easier to understand, you could use named variables. |
| Explain what a spreadsheet model of a real-life situation is and what it can be used for? 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 how to spend your pocket money over time. |

**SCHOOL READY, WORK READY, LIFE READY**

## Knowledge Mat – Databases

| Subject Specific Vocabulary | | | | Sticky Knowledge |
|---|---|---|---|---|
| **Avatar** | An icon or figure representing a person in a video game, internet forum, etc. | **Binary tree (branching database)** | A way to sort information into groups based upon questions wit yes or no answers. | To learn how to search for information in a database. |
| **Collaborative** | Produced by, or involving, two or more parties working together. | **Charts** | Representing information in a pictorial form. | To contribute to a class database. |
| **Data** | Facts and statistics collected together for information. | **Database** | A set of data that can be held in a computer in a format that can be searched and sorted for information. | To create a database around a chosen topic. |
| **Find** | Search for information in a database. | **Sort, Group and Arrange** | Different ways to sort information in a database so it is easy to read, understand and interpret. | |
| **Table** | Sorting information into rows and columns. | **Statistics and reports** | To produce information about data in a database. | |
| **Find** | Search for information in a database. | **Record** | A collection of data about one item entered into a database. | |

| Key questions |
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| What is a database ?<br>A collection of data organised in such a way that it can be searched, and information found easily. Databases usually refers to data stored on computers. |
| Why is the collaborative feature important ?<br>Making a database collaborative allows lots of people to enter information into the database at the same time. This is a lot quicker than one person entering the data by themselves. |
| In what ways can I sort information in a database ? A database can hold lots of information so it is essential that information can be effectively investigated. In 2Investigate data can be searched and sorted in a variety of ways. It can also be presented pictorially. |

## Knowledge Mat – Game Creator

| Subject Specific Vocabulary | | | | Sticky Knowledge |
|---|---|---|---|---|
| **Animation** | Creating an illusion of movement. | **Computer game** | A game played using a computer, typically a video game. | To plan a game. |
| **Customise** | Modify (something) to suit an individual or task. | **Evaluation** | The making of a judgement about the value of something. | To design and create the game environment. |
| **Image** | In this case, a picture displayed on the computer screen. | **Instructions** | Detailed information about how something should be done or operated. | To design and create the game quest. |
| **Interactive** | Responding to a user's input on a computer or device. | **Screenshot** | An image of the data displayed on the screen of a computer or mobile device. | To finish and share the game. |
| **Texture** | High frequency detail or colour information on a computer-generated graphic | **Playability** | A measure of either the ease by which a video game may be played, or of the overall quality of its gameplay. | To self and peer evaluate. |
| **Perspective** | Representing three-dimensional objects on a two-dimensional surface to give the right impression of their height, width, depth, and position in relation to each other. | | | |

### Key questions

What is the 2DIY 3D tool in Purple Mash?

2DIY 3Dallows users to create a playing area, such as a maze, in 2D and then turn it into a 3D computer game. The aim is to avoid the 'baddies' and collect treasure.

What makes a good computer game?

A good game designer gives the player continuous challenges in a visually stimulating environment, each of which leads to another challenge, to keep the game challenging and fun.

Why is it important to continually evaluate your game?

Evaluating your game as you make it allows you to think about ways in which it can be improved. Evaluation may also involve the views of other people who play your game.