





## MEDIUM TERM PLANNING

Subject	Topic/Key Question	Year Group	Term	Time Allocation
Computing	Word Processing	Year 6	Spring 1	6 hours
 Software/App – Microsoft Word (excel)				
 Vocabulary <ul style="list-style-type: none"> <li>• Spread sheet</li> <li>• Cell</li> <li>• Row</li> <li>• Column</li> <li>• Formula/formulas</li> <li>• Calculate</li> <li>• Format</li> <li>• Average</li> <li>• Percent</li> <li>• Edit</li> <li>• Insert</li> <li>• Ascending</li> <li>• Descending</li> </ul>				

Lesson Sequence	Time Allocation	Key Question/W ALT	Teaching Activities	Resources
Lesson 1	1 hour	WALT: enter data and formulas into a spreadsheet.	<p>Introducing Spreadsheets: What do children know about spreadsheets already? What are they used for?            What can they do? Allow short time to talk to partner and feedback.            Cell References: Explain that everything in a spreadsheet goes into a cell (like a box in a grid). Each cell is named by the row and column in which it is located. Use the Cells and Data Spreadsheet to ask questions such as ‘What is in cell B2?’ / ‘What cell would you find the banana?’</p> <p>Formatting Cells: Demonstrate that cells can be formatted to look clearer or more interesting, similar to word processing or desk top publishing. Use a spreadsheet to model briefly how to change cell colours and borders, font size, style, colour and alignment, row height, column width. Demonstrate how to select an entire row, column or entire sheet and how multiple rows or columns can be adjusted or formatted at the same time. Allow children to explore and encourage them to present their work attractively, if they have time after each future activity.</p> <p>Calculations: Establish that one advantage of spreadsheets is the ability to do calculations quickly, like a calculator. Show the Number Operations - Teacher Spreadsheet, beginning with just number addition. Demonstrate typing any numbers into cells and then using the SUM function to add the contents of two cells. (e.g. =SUM(B5+B6)) What if we changed the contents of the cells now? Extend to calculations for Subtract, Multiply and Divide. Show the symbol for multiply is ‘*’ and for divide, we use ‘/’. The cell reference can be typed or the cell selected.</p>	Laptops Microsoft Excel Twinkl lesson 1

			Try It Yourself: Can children enter data and formulas correctly into a spreadsheet?	
Lesson 2	1 hour	WALT: can order and present data based on calculations.	<p>Using Spreadsheets: What could spreadsheets be used for? Invite suggestions from children, such as number calculations, creating graphs, budget or event planning, league tables or scores.</p> <p>Formula for a Purpose: Now that we know how to enter a formula, it can be used for a specific purpose. Show the Hockey League – Children Spreadsheet. Explain that some information has been entered based on a set of results, but the remaining columns need to be calculated. Ask for suggestions for suitable formulae. Demonstrate how to copy and paste or fill down a set of cells to work more efficiently.</p> <p>Creating Graphs: Demonstrate how to create a graph using the completed information. Highlight the table from teams to points, including all rows. Click Insert, then choose Column Graph. The Move Chart button on the Chart Design toolbar can then be used to position the chart as a new sheet. Further formatting can be demonstrated using the Chart Layout or Chart Format toolbar buttons, including titles for axis; chart title; colours and gridlines. Lastly, encourage the children to check their chart makes sense. What is it showing? To remove unwanted data from being presented in the graph (e.g. Matches, Won, Drawn, Lost) right-click on any bar in the graph and choose ‘Select Data’. Here, columns can be added or removed as desired</p>	Laptops Microsoft Excel Twinkl lesson 2
Lesson 3	1 hour	WALT: add, edit and calculate data	<p>Totals and Averages: Show the Spelling Test Scores – Children Spreadsheet. Can children recognise what data is being represented? How can we calculate the totals and average for each row of data?</p> <p>Demonstrate the AVERAGE function and ways to insert it.</p>	Laptops Microsoft Excel Twinkl lesson 3

			<p>Calculate and Sort: Ask if the children can remember how to sort data. Demonstrate the process again or ask a child to do so. Order the data according to their Week 1 scores (this can be undone if necessary with the Undo button). Show how to use a 'Quick Sort' instead as a shortcut, sorting Z to A based on the first column selected (either left-most or right-most).</p> <p>Try It Yourself: Using the Spelling Test Scores – Children Spreadsheet, calculate the totals and averages for each row. Sort the data in descending order according to total score.</p> <p>Adding Data: What if we needed to add extra children to the list? What if we needed to add an extra week of scores? Demonstrate how to insert rows or columns.</p> <p>Editing Data: What if someone's scores were wrong? Establish that they can be edited and the spreadsheet formulas will automatically recalculate the correct totals and averages. How is this different to using pen and paper with a calculator? Discuss the need to re-sort data after it has been recalculated.</p> <p>Find the Formulas: Can children calculate totals and averages using correct formula? Use the differentiated Spelling Test Scores Activity Sheet to add extra data and edit existing data as instructed</p>	
Lesson 4	1 hour	WALT: use a spreadsheet to solve problems	<p>Solving Problems with Spreadsheets: Explain to children that they are to be given an investigation. The problem that must be solved requires the use of a spreadsheet.</p> <p>The Problem: Present the problem on the Pocket Money Problem Activity Sheet and allow children to discuss which option they believe will be the best, giving reasons why. Predict how the options are likely to change over time.</p> <p>The Solution: Guide children to the conclusion that repeating a formula multiple times in a spreadsheet is far quicker than typing each time. No matter how large, numbers can be calculated quickly and accurately for any number of weeks.</p>	Laptops Microsoft Excel Twinkl lesson 4

			<p>Multiple Columns: In order to adjust or format more than one spreadsheet column at a time, demonstrate that multiple columns can be selected. Ask why this is useful and show process of adjusting column width of all columns in a selected range.</p> <p>Merging Cells: Sometimes it may be appropriate for two or more cells to be merged together. Demonstrate this with the column headings of 'Option A' etc. by merging each across two cells.</p> <p>Format to Currency: Ask how we need numbers to be displayed if we are typing in values to represent money? Establish the need for £ sign and two decimal places. What would 50p look like? What about 1p?</p>	
Lesson 5	1 hour	WALT: plan and calculate a spending budget	<p>Planning a Party: What type of food might you have for a party? After a few suggestions, ask if anyone can suggest how a spreadsheet could be helpful for planning party food?</p> <p>Party Plan Budget: Introduce Party Plan Budget task. The task is to create a shopping budget for a party. There will be 20 people attending the party. Everyone must have something to eat and drink, including a choice of meal, some type of snacks and something healthy. Aim to give guests as much as you can afford. Spend as close as you can to the limit, without going over! You have a budget of: £60.</p> <p>Food for One: Make a plan of a potential set of food and drink for one person. Provide at least two alternative choices. What items are required?</p> <p>Calculating Amounts: Work through examples. If there are 20 people and you get 4 yoghurts per pack, how many packs will you need to buy to cater for everyone? Is it cheaper to buy 3 packs of 8 cupcakes or 2 packs of 12 chocolate bars?</p> <p>Prices, Quantities &amp; Totals: Discuss and demonstrate calculating price, number of items and total. Can children work out how to calculate a total from the price and quantity? Add an overall running total at the bottom of the list and calculate the amount of budget remaining.</p> <p>Plan Your Party: Can children identify and enter correct formulas for totals and remaining amounts?</p>	<p>Laptops</p> <p>Microsoft Excel</p> <p>Twinkl lesson 5</p>

			Children use the differentiated Party Plan Budget Activity Sheet and follow instructions provided to build a shopping list from the available items.	
Lesson 6	1 hour	WALT: design a spreadsheet for a specific purpose	<p>Introducing a Topic: Introduce lesson by sharing the task that children will be designing and creating their own spreadsheet for whatever purpose they choose. This will give more thinking time for their own original ideas. It may be decided that children are asked to return to and complete any previous spreadsheet tasks first from lessons 1-5.</p> <p>Quick Reminder Quiz: Who can remember what has been taught so far about how to use spreadsheets? See who can answer these quick reminder questions. This could be done by children explaining verbally or demonstrating on the computer. How do you sort a list of values from largest to smallest? How do you change the font style for the entire spreadsheet? How do you add a set of numbers together? How do you insert an extra row into your spreadsheet? How do you adjust the width of multiple columns?</p> <p>Design Your Own: Explain to children that they will have the chance to design their own spreadsheet. It will need to be for a specific purpose which they will decide. This can be their own original idea or could be an adapted version of a spreadsheet from a previous lesson.</p> <p>Example Spreadsheets: To generate ideas, recap some of the previous spreadsheets from earlier lessons with thumbnail images as reminders. Discuss how some of these could be adapted to new versions, e.g. spelling test scores could be adapted to be computer game scores; party plan budget could be children's own pocket money spending or saving plan.</p> <p>Create Your Spreadsheet: Can children design and create their own spreadsheet for a particular purpose?</p>	Laptops Microsoft Excel Twinkl lesson 6