



Computing Knowledge Organiser: Spreadsheets Theme Park Design

Key Knowledge Learn these key facts

Spreadsheets

A	B	C	D
	T-Shirt Sales		
	Monday	Tuesday	Wednesday
Extra small	87	87	98
Small	44	1000	90

A spreadsheet can be used to keep track of budget, profit and loss. Information is entered into the cells. Formulas can be set to make calculations. The data can also be turned into graphs and tables to show information.

Cells, rowa and columns

Figure 1.10: The SUM function

SUM adds selected cells and provides a total.

=SUM(A1+B1)

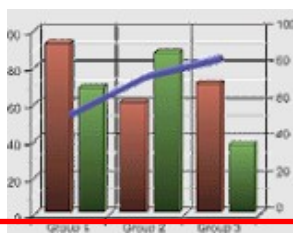
Data is entered as an input into a cell. Cells are where rows and columns meet. Cells can store data like formulas, text and numbers. Each cell has a number and letter attached to it. A row runs horizontally and a column runs vertically. Spreadsheet worksheets are made up of thousands of cells. The SUM function adds all numbers in a range of cells and gives a

Budget, Profit and Loss



A budget is the amount of money you have to complete a task. If you make more money than you started with, this is called a profit. If you finish with less money than you started with, this is called a loss. A spreadsheet will help you keep track of you budget and work out your profit or loss.

Input, output, sorting and graphs



Once the data has been input into the spreadsheet, an output can be created as a graph or table. Data can also be sorted to only show information that you want to look at. Graphs and tables can help you look at and compare data to keep track of budgets, profit and loss.

Key Vocabulary

Understand these key words

Word	Definition
Microsoft Excel	This is a spreadsheet. It features calculations, graphs, formulas and lots of coding in the backgrpund to make it all work.
Budget	An estimate of income and spending for a set period of time.
Profit	A financial gain. The difference between the amount earned and the amount spent in buying, operating or producing something.
Loss	the opposite of a profit and occurs when a person or company spends more money than they earn for a given period of time.
Cell	Every worksheet is made up of thousands of rectangles, which are called cells. A cell is where a row and column meet.
Sum	Adds all numbers in a range of cells and provides a total.



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Key Vocabulary

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Theme park spreadsheet

Theme Park Plan										Name		the Erin and Leon land!										£223,660.00 in bank			
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T					
1								Tree	Path	Tree						Roller	Lake	Lake	Lake						
2	Toilet								Path						Tree	Path	Roller	Lake	Roller	Lake					
3	Toilet	Path	Path	Ice Cr	Ice Cr	Ice Cr	Ice Cr		Path		Lake			SD	Path	Roller	Lake	Roller	Lake	Lake					
4	Toilet	Path	Path	Path	Path	Path	Path	Tree	Path	Tree	Lake	Lake	Lake	Tree						Lake					
5	Toilet		Path	Cafe	Cafe	Cafe	Cafe		Path	Lake	Lake	Lake	Lake	Tree						Lake					
6			Path	Path	Path	Path	Path		Path	Lake	Ride	Ride	Lake	Tree						Lake					
7	Ride	Ride	Ride	Path					Path	Lake	Ride	Lake	Lake	Lake											
8	Ride	Ride	Ride	Path	Tree				Path	Lake	Ride	Ride	Lake	Lake											
9				Path		Bin	Bin		Path	Lake	Tree	Ride	Lake	Lake	Path	Ride	Ride								
10	Roller	Roller	Roller	Path	Path	Path	Path	Path	Path	Path	Path	Path	Path	Path	Path	Path	Ride	Ride							
11	Roller	Lake	Lake	Lake	Lake	Path	Shop	Shop	Shop	Shop	Shop	Shop	Shop	Shop	Shop	Path	Ride	Ride							
12	Roller	Roller	Roller	Lake	Lake	Path										Path									
13			Roller	Lake	Lake	Path											Ride	Ride							
14			Roller	Roller	Roller	Roller											Ride	Ride							
15																	Ride	Ride							
16																									
17																									
18																									

This spreadsheet has data in the cells. Each cell has a letter and number attached e.g in G11 there is a shop.

The top right corner shows the current budget and the top left corner tells us what data the spreadsheet is showing.

We can enter formulas into the cells which can carry out calculations to provide different data—this can then be turned into an output such as a graph or table.

Word

Definition

sorting

Sorting in Excel is arranging data in a certain way. This can be done alphabetically or numerically. Basic Sorting works when only sorting one column. Advanced Sorting is used in multi-level sorting e.g. 2 or more than 2 columns.

sum

The Microsoft Excel SUM function adds all numbers in a range of cells and returns the result.

Rows and columns

Rows and columns - Columns are identified by letters (A, B, C), while rows are identified by numbers (1, 2, 3). Each cell has its own name—or cell address—based on its column and row. For example if a cell meets in column C and row 5, so the cell address is C5.

Input/
Output

Input/output – in excel, inputs are the information added to a cell or multiple cells. Outputs are using this information to analyse e.g. a table, graph or printout.

Excel graph/
chart

Excel graph/chart - An excel graph or chart is a visual representation of data from the worksheet that can bring more understanding to the data than just looking at the numbers.

Table showing our data (output)

This table shows the data that has been put into the cells. The table and the data in it is an output.

By entering the data into the spreadsheet we have created a table which can show us how much we are spending. This is useful because it

Can help us not to overspend. It can also help us to see if we have made any profits.

The table can show us how many of each item we have and how much we are spending on each item. This may help us to make decisions such as 'we are spending too much on rollercoasters but not enough on ice cream stands.'

Visitor Spending for the Theme Park for One Day					
Item	Number of Items in your theme park	Number of visitors	Number of visitors x number of items	Price	Money spent in One day
Roller Coaster	4	300	1200	8	£9,600.00
Ride	5	150	750	4	£3,000.00
Café	3	50	150	6	£900.00
Path	68	2	136	5	£680.00
Shop	2	50	100	3	£300.00
Ice Cream Stand	2	35	70	4	£280.00
Tree	12	4	48	0.5	£24.00
Lake	44	8	352	1	£352.00
Total Spend for 1 Day					