Topic: Representing Data

Topic/Skill	Definition/Tips	Example		
1. Frequency	A record of how often each value in a set	Number of marks	Tally marks	Frequency
Table	of data occurs .	1	1111	7
		2	1111	5
		3	JHT I	6
		4		5
		5		3
		Total		26
2. Bar Chart	Represents data as vertical blocks.	14		
	x - axis shows the type of data y - axis shows the frequency for each type of data Each bar should be the same width There should be gaps between each bar Remember to label each axis.	12 10 8 6 4 2 0 0 1 2 3 4 Number of pets owned		
		Number of pers owned		
3. Types of Bar Chart	Compound/Composite Bar Charts show data stacked on top of each other.	Weight (gm)		
	Comparative/Dual Bar Charts show data side by side.	50 40 30 20 10 Jan Feb Mar Apr May Month Dual Bar Chart		
4. Pie Chart	Used for showing how data breaks down			
	into its constituent parts.		uash 36°	
	When drawing a pie chart, divide 360° by the total frequency . This will tell you how many degrees to use for the frequency of each category.	Tennis 36° 40° Hockey 80° Netball		
	Remember to label the category that each sector in the pie chart represents.	If there are 40 people in a survey, then each person will be worth $360 \div 40=9^{\circ}$ of the pie chart.		

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5. Pictogram	Uses pictures or symbols to show the	Black 🖨 🖨 🖣		
	value of the data.			
		= 4 cars		
	A pictogram must have a key .	Green 🖗 🙀 Fears		
		Others 🚍 🚍 🚝		
6. Line Graph	A graph that uses points connected by	14		
	straight lines to show how data changes in	12		
	values.	10		
	This can be used for time series data ,	6		
	which is a series of data points spaced over	4		
	uniform time intervals in time order .	2		
	uniform time intervals in time order.			
7. Two Way	A table that organises data around two	Question: Complete the 2 way table below.		
Tables	categories.	Left Handed Right Handed Total Boys 10 58		
Tables	categories.	Girls		
	Fill out the information step by step using	Total 84 100 Answer: Step 1, fill out the easy parts (the totals) ••••••••••••••••••••••••••••••••••••		
	the information given.	Left Handed Right Handed Total Boys 10 48 58		
		Girls 42 Total 16 84 100		
	Make sure all the totals add up for all	Answer: Step 2, fill out the remaining parts Left Handed Right Handed Total		
	columns and rows.	Boys 10 48 58		
		Girls 6 36 42 Total 16 84 100		
8. Box Plots	The minimum, lower quartile, median,	Students sit a maths test. The highest		
	upper quartile and maximum are shown on	score is 19, the lowest score is 8, the		
	a box plot.	median is 14, the lower quartile is 10		
		and the upper quartile is 17. Draw a		
	A box plot can be drawn independently or	box plot to represent this information.		
	from a cumulative frequency diagram.			
9. Comparing	Write two sentences.	'On average, students in class A were		
Box Plots	1. Compare the averages using the medians for two sets of data.	more successful on the test than class B because their median score was higher.' 'Students in class B were more consistent than class A in their test		
	2. Compare the spread of the data using the			
	range or IQR for two sets of data.			
	The <u>smaller</u> the range/IQR, the <u>more</u>	scores as their IQR was smaller.'		
	<u>consistent</u> the data.			
	You must compare box plots in the context of the problem.			