Topic: Representing Data

Topic/Skill	/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	JHH 11	7
		2	1111	5
		3	JHH I	6
		4		
				5
		5 Total		3 26
		TOCAL		20
2. Bar Chart	Represents data as vertical blocks. 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.	Number of pets owned		
	Compound/Composite Bar Charts show		Iron	
3. Types of Bar Chart	data stacked on top of each other. Comparative/Dual Bar Charts show data side by side.	Weight (gm) 40 40 30 40 30 40 40 30 40 40 40 40 40 40 40 40 40 4		
			Mar Apr May Month Bar Chart	,
4. Pie Chart	Used for showing how data breaks down	So	uash	
	into its constituent parts.	Tennis	36° Football	
	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.	40° Hockey 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.	Red 🚍 🚍 🚍	
	A pictogram must have a key .	Green 🖉 🧰 = 4 cars	
	A pictogram must have a key .	Others \bigcirc \bigcirc \bigcirc \bigcirc \bigcirc	
6. Line Graph	A graph that uses points connected by		
6. Line Graph	straight lines to show how data changes in		
	values.	10	
		8	
	This can be used for time series data ,	6	
	which is a series of data points spaced over		
	uniform time intervals in time order .	- •	
		1 2 3 4 5 6 7 8 9	
7. Two Way	A table that organises data around two	Question: Complete the 2 way table below. Left Handed Right Handed Total	
Tables	categories.	Boys 10 58 Girls	
	Fill out the information star by star using	Total 84 100 Answer: Step 1, fill out the easy parts (the totals) 100 100	
	Fill out the information step by step using the information given.	Left Handed Right Handed Total Boys 10 48 58	
	the information given.	Joys 10 10 30 Girls 42 42 Total 16 84 100	
	Make sure all the totals add up for all	Answer: Step 2, fill out the remaining parts	
	columns and rows.	Left Handed Right Handed Total Boys 10 48 58	
		Girls δ 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	
	A how plot can be drawn independently on	and the upper quartile is 17. Draw a	
	A box plot can be drawn independently or from a cumulative frequency diagram.	box plot to represent this information.	
	nom a cumulative frequency diagram.		
9. Comparing	Write two sentences.	'On average, students in class A were	
Box Plots	1. Compare the averages using the	more successful on the test than class B	
	medians for two sets of data.	because their median score was higher.'	
	2. Compare the spread of the data using the		
	range or IQR for two sets of data.	'Students in class B were more	
	The smaller the range/IOD, the more	consistent than class A in their test	
	The <u>smaller</u> the range/IQR, the <u>more</u> consistent the data.	scores as their IQR was smaller.'	
	<u>consistent</u> the data.		
	You must compare box plots in the context		
	of the problem.		