Maths Knowledge Organiser

7B3c: Representing Data

Frequency Table	A record of <b>how often each value</b> in a set of data	Number of marks	Tally marks	Frequency
Trequency rable	occurs.	1	JH1 II	7
		2	1111	5
		3	JH1 I	6
		4	Ш	5
		5	III	3
		Total		26
Bar Chart	Represents data as vertical blocks. $x - axis$ shows the <b>type</b> of data $y - axis$ shows the <b>frequency</b> for each type of data Each bar should be the <b>same width</b> There should be <b>gaps</b> between each bar Remember to <b>label</b> each axis.	14 12 10 8 6 4 2 0 0 0 0		
			imber of pets o	owned
Types of Bar Chart	Compound/Composite Bar Charts show data stacked on top of each other.	80 70 80 90 90 90 90 90 90 90 90 90 90 90 90 90	Carbon Aluminum  B Sample	c
	Comparative/Dual Bar Charts show data side by side.	50 40 30 cm 20 10 Jan Feb	Mar Apr May Month Bar Chart	Key: London Bristol
Pie Chart	Used for showing <b>how data breaks down into</b> its constituent <b>parts</b> .	Tennis 36° Football 144°		
	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.	Hockey	7	
	Remember to <b>label</b> 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÷40=9° of the pie chart.		

Pictogram	Uses <b>pictures</b> or symbols to <b>show the value</b> of the data.	Black 🚍 🚍 🐔
	A pictogram must have a <b>key</b> .	Red 😝 🚝 🥽
		Green ← = 4 cars
		Others 🚍 🚍 🚍
Line Graph	A graph that uses points connected by straight lines to	14
	show how data changes in values.	12
		10
	This can be used for <b>time series data</b> , which is a series of	8
	data points spaced over uniform time intervals in <b>time</b>	6
	order.	4
	0.40	2
		0
		1 2 3 4 5 6 7 8 9
Two Way Tables	A table that <b>organises data</b> around <b>two categories.</b>	Question: Complete the 2 way table below.
	<b>6</b>	Bovs 10 Right Handed Total 58
		Boys 10 58 Girls
	Fill out the information step by step using the	Total 84 100
	information given.	Answer: Step 1, fill out the easy parts (the totals)
		Left Handed Right Handed Total
		Boys 10 48 58 Girls 42
	Make sure all the totals add up for all columns and rows.	Total 16 84 100
		Answer: Step 2, fill out the remaining parts
		Left Handed Right Handed Total
		Boys 10 48 58 Girls 6 36 42
		Girls         6         36         42           Total         16         84         100
		10tai 10 64 100