

Unit 3a: Interpreting and representing data				Year 9 Road Map		
In this unit you will learn about number. The aims are as follows:						
LG1: Knowledge		LG2: Application		LG3: Skills		
S/N	Level	Learning Goals/Outcomes/Content	Dr Frost Videos	 R	 A	 G
3a) Presentation and Interpretation of Data						
1	S	Use suitable data collection techniques (data to be integer and decimal values);	27e			
2	S	Design and use data-collection sheets for grouped, discrete and continuous data, use inequalities for grouped data, and introduce $\leq$ and $\geq$ signs;	27b 27h			
3	S	Interpret and discuss the data; Sort, classify and tabulate data, both discrete and continuous quantitative data, and qualitative data;	344a			
4	S	Construct tables for time-series data;	400a			
5	S	Extract data from lists and tables;	27a			
6	S	Use correct notation for time, 12- and 24-hour clock;	60g			
7	S	Work out time taken for a journey from a timetable;	113b			
8	SCE	Design and use two-way tables for discrete and grouped data;	238a			
9	SCE	Use information provided to complete a two-way table;	238b			
10	S	Plotting coordinates in first quadrant and read graph scales in multiples;	83a 83c			
11	S	Produce: pictograms; composite bar charts; dual/comparative bar charts for categorical and ungrouped discrete data; bar-line charts; vertical line charts; line graphs; line graphs for time-series data; histograms with equal class intervals;	31c 65c 401a			
12	S	Interpret data shown in pictograms; composite bar charts; dual/comparative bar charts; line graphs; line graphs for time-series data; histograms with equal class intervals; stem and leaf;	31g 65d			
13	S	Identify the mode from a bar chart;	239			
14	SC	Recognise simple patterns, characteristics, relationships in bar charts and line graphs.	65k 65g			
15	SCE	Know which charts to use for different types of data sets;	127m 224f			
16	C	Produce and interpret composite bar charts;	239			
17	C	Produce and interpret comparative and dual bar charts;	239			
18	SCE	Construct pie charts for categorical data and discrete/continuous numerical data;	131a 131d			
19	SCE	Interpret simple pie charts using simple fractions and percentages; $\frac{1}{2}$, $\frac{1}{4}$ and multiples of 10% sections;	131c 131e 131g			
20	CE	From a pie chart:				
21	CE	find the mode;	246k			
22	CE	find the total frequency;	246k			
23	CE	Understand that the frequency represented by corresponding sectors in two pie charts is dependent upon the total populations represented by each of the pie charts.	479a			

24	CE	find the mode and the frequency represented by each sector; compare data from pie charts that represent different-sized samples;	246e			
25	CE	Produce and interpret frequency polygons for grouped data: from frequency polygons, read off frequency values, compare distributions, calculate total population, mean, estimate greatest and least possible values (and range);	315c 315d 315e			
26	CE	Produce frequency diagrams for grouped discrete data: read off frequency values, calculate total population, find greatest and least values;	315a 315b			
27	CE	Produce histograms with equal class intervals:	314a 401a			
28	CE	estimate the median from a histogram with equal class width or any other information, such as the number of people in a given interval;	401i			
29	CE	Produce line graphs: read off frequency values, calculate total population, find greatest and least values;	401e 401g			
30	CE	Construct and interpret time-series graphs, comment on trends;	400a 400b			
31	CE	Recognise simple patterns, characteristics relationships in bar charts, line graphs and frequency polygons.				
32	SCE	Draw scatter graphs;	244a			
33	SCE	Interpret points on a scatter graph;	244b			
34	SCE	Identify outliers and ignore them on scatter graphs;	244c			
35	CE	Draw the line of best fit on a scatter diagram by eye, and understand what it represents;	245a			
36	CE	Use the line of best fit make predictions; interpolate and extrapolate apparent trends whilst knowing the dangers of so doing;	245b			
37	CE	Distinguish between positive, negative and no correlation using lines of best fit;	244d			
38	CE	Interpret scatter graphs in terms of the relationship between two variables;	244f			
39	CE	Interpret correlation in terms of the problem;	244f			
40	CE	Understand that correlation does not imply causality;	244g			
41	CE	State how reliable their predictions are, i.e. not reliable if extrapolated.	245d			
42	CE	Explain an isolated point on a scatter graph;	244c			

Student's comments and questions: