Year 12 Maths Studies Spring Topic Schedule 2022

Topic	Key Learning Points/End Points	Key Vocabulary
Fermi estimation and modelling	Learn how to estimate solutions to mathematical problems using fermi estimation. Use standard form to help in these solutions	Fermi estimation, mathematical modelling, Standard form, assumptions, scaling, subdividing, simplification.
Revision, Test and test feedback		
Data representation: dot plots, Stem and leaf diagrams, including finding median and interquartile range	Know how to represent data in a clear way, using stem and leaf diagrams. Use these to find median and interquartile range.	Stem, leaf, median . interquartile range, upper quartile, lower quartile
Cumulative frequency curves and box and whisker plots	Be able to produce cumulative frequency curves and box and whisker diagrams. Be able to interpret cumulative frequency curves and box and whisker diagrams.	Frequency, cumulative frequency, skewed.
Estimated mean	Find mode and median from grouped data. Calculate estimated mean from a table of discrete and continuous data. Understand why this calculation is an estimate, interpret this mean. Be able to compare two sets of data using these averages	Estimated mean. Grouped data
Standard deviation	Calculate standard deviation. Use this measure of spread to interpret data, and compare to other sets of data	Standard deviation, variance, sigma,
Half term		
Assessment and feedback		
histograms	Be able to produce histogram from given data. Be able to complete apart completed histogram by recreating the original data. Be able to interpret histograms.	Histogram, class width, frequency density.
Introduction to tax and national insurance calculations	Be able to calculate the tax due for an individual on a given salary. Be able to calculate national insurance for an individual on a given salary.	Income tax, taxable pay, net pay, gross pay, personal allowance, basic rate, higher rate, PAYE , national insurance number, personal pension National insurance, lower limit, upper limit, contracted out and non- contracted out (historic information)