Share Multi Academy Trust

Curriculum Planning Template

Subject: Statistics Year 10 Ability All

Half Term 2 / weeks	**Week 1-3**	**Week 4-6**
Topic	Block 5 - Statistical Diagrams	Block 6 – Statistical Calculations
Topic overview **Pupils will learn…**	To be able to represent data in a range of different statistical diagrams	To be able to perform relevant statistical calculations on collected data
Components	• To be able to display, interpret and compare data sets in a table • To be able to represent qualitative data in diagrams (pie charts and pictograms) • To be able to represent quantitative data in diagrams (bar charts, line charts and bar line charts) • To be able to draw and interpret frequency polygons • To be able to draw and interpret stem and leaf diagrams • To be able to compare data sets using population pyramids • To be able to draw and interpret histograms	• To be able to calculate the different averages including in a frequency table and grouped frequency table • To be able to estimate the mean of a whole population through estimation • To be able to calculate measures of spread (including interdecile range and interpercentile range) • To be able to calculate standard deviation (including from tables and grouped tables) • To calculate skew and understand the shapes of skewed distribution
What pupils should already know (prior learning components)	Students should already be familiar with pictograms, pie charts and bar charts	Students will already be familiar with the types of average and the range, including finding the mean from tables, both grouped and ungrouped.
Transferrable knowledge (skills)	In presenting any statistical report, diagrams will be needed and this block covers that. Students will use such diagrams not only later in the course but in a range of subjects at GCSE and A Level.	In presenting any statistical report, data calculations will be required and this block covers that. Students will use such diagrams not only later in the course but in a range of subjects at GCSE and A Level.
Key vocabulary pupil will know and learn	Pictogram, pie chart, line chart, bar chart, dual bar chart, frequency polygon, stem and leaf diagram, population pyramid, histogram	Mean, median, mode, range, estimated mean, interquartile range, interdecile range, interpercentile range, standard deviation, skew, spread
Assessment activities	Block 5-6 covered in Test 2 Homework available for after each block	Block 5-6 covered in Test 2 Homework available for after each block
Resources available	Template lessons available for each block. Latest edition of textbook available. Certain Hegarty quizzes are suitable but not every topic features online	Template lessons available for each block. Latest edition of textbook available. Certain Hegarty quizzes are suitable but not every topic features online

Notes **Why this topic is important…**	Florence Nightingale established the power of the statistical diagram with her famous Rose diagram and since then people expect statistical diagrams in any statistical enquiry with most people associating statistics strongly with diagrams. This topic looks at the ways to process data to create a range of statistical diagrams for different types of data. Students then learn how to interpret the diagrams, both to draw conclusions for single data sets but also to compare a data set in relation to a different data.	Interpretation of data sets and diagrams also requires numerical calculations. This allows context to be apportioned to diagrams with strengths, weaknesses and comparisons analysed in a numerical manner. This topic looks at a number of such techniques including averages, spread and skew. Students look at which data analysis is relevant to which data type as well as using generated values to compare and draw conclusions from different data sets.