# AUTUMN 2024

## Subject: Statistics

## Year: 10 (GCSE)

**Topic(s) to be covered:**

**Unit 1 – Representing data**

Topic 2.1 – Representing discrete and qualitative data using pictograms, bar charts, pie charts, two-way tables, stem and leaf diagrams

Topic 2.2 – Representing continuous data using frequency polygons, cumulative frequency charts, histograms and population pyramids

Topic 2.3 – Interpreting different methods of displaying data, knowing the limitations of each method, and identifying situations which are appropriate to use each way of displaying data

Topic 2.4 – Misleading diagrams and identifying errors with represented data

**Unit 2 – Summarising Data**

Topic 3.1 – Calculating averages and measures of spread, including measures from a frequency, and a grouped frequency table.

Topic 3.2 – Calculating quartiles and the interquartile range from discrete and continuous data.

Topic 3.3 – Designing box plots and compare two box plots with focus on the median, interquartile range and skew. Be able to put each of these comparisons in context

Topic 3.4 – Calculate with standard deviation and understand how this shows the spread of data from the mean

Topic 3.5 – Calculate outliers in two different methods depending on the previous calculations that have been done

Topic 3.6 – Compare two sets of data using the median and interquartile range, or the mean and standard deviation. Be able to make choices about which average and measure of spread is the best to use in each situation

Topic 3.7 – Calculate skew and be able to interpret in context

**Assessment Procedures:**

Following each topic area, students will sit a topic assessment which will be graded from 1-9 based on GCSE levels and used to inform us of your child's progress. A closing the gap topic consolidation sheet will be in your child's book on green paper, this will show you child the areas to develop, and areas of strength to help them improve and target their revision. They will complete a Wow, How Now to get them to close the gap on missing knowledge.

Mock assessments in both Year 10/Yr11 will be carried out and assessed in order to identify personalised targets/area for improvement.

**Homework guidance:**

Homework will be set at least once a week. The purpose of the homework will either be to consolidate work done during the lesson or to find out something new to discuss at the following lesson. Homework will be set on paper and a copy of the sheet will be uploaded onto Synergy.

**How can you help?**

Any extra Mathematics or Statistics you can encourage your child to do will help with their success in the subject. Students are always encouraged to seek extra help from their teachers to help them make good progress Statistics.

1. Ensure your child completes homework in time and shows all working out on their homework sheet or in their book.
2. Purchasing a Statistics 9-1 revision guide and a calculator to use at home to assist them in their learning and consolidation of a topic.
3. Encourage your child to look for statistics in the news or in other areas of life. Getting them to think and question the reliability of the statistics in the news will help them become more confident and able in, analysing patterns and trends in data, and the reliability and validity of claims based on statistics.

**Equipment needed:**

- Pencil, ruler, calculator, rubber, pen, protractor, compass.

**Textbooks:**

Our scheme of work follows the Pearson Edexcel 9-1 Statistics GCSE Student book.