



Statistics

Subject intent:

Statisticians at JCA are taught to harness the power of presenting their thinking using a combination of mathematical processes and clear, concise statistical analysis. Students are equipped with the analytical skills to judge raw and processed data effectively, including data which may be being presented to them by a stakeholder with a particular point of view. Students will learn judgement skills to decide the very best way in which data should be analysed, as well as key statistical distributions that can be applied to real life situations.

Brief overview of thinking behind KS4 cumulation and progression of knowledge:

The curriculum route map has been designed to ensure that links with the Maths curriculum can be explored at key points (first respective topics in both Year 10 and Year 11, for example, highlight the pattern in Statistics of Maths topics that the students have already learnt being studied in more depth in the Statistics course).

Index numbers are taught penultimately to allow one of the most conceptually challenging areas of the course (weighted means) to be revisited explicitly in teaching again (weighted index numbers).

Probability distributions are taught at the end of Year 11 due to the conceptual difficulty of the topic, but also because it is a good segue into parts of A-level Maths that some of the students will explore at KS5.

Link to KS4 specification:

<https://qualifications.pearson.com/en/qualifications/edexcel-gcses/statistics-2017.html>
<https://qualifications.pearson.com/content/dam/pdf/GCSE/Statistics/2017/specification-and-sample-assessments/gcse-9-1-statistics-specification.pdf>

Curriculum plan:

Year 10

1. Scatter graphs
2. Time series
3. Collecting data
4. Representing data
5. Calculations with data

Year 11

1. Probability
2. Index numbers
3. Probability distributions

Topics are all mapped out in detail through Knowledge Organisers on the student navigator area of the school website in the JCA GCSE revision folder.