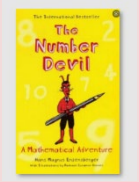
The English Martyrs Catholic School and Sixth Form College

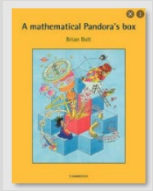
Year 7 Maths	Module 1	Module 2	Module 3
Topic Theme and Intent	Within this first Module, Year 7 students will cover 3 main areas of the curriculum, which are: Number, Statistics and Ratio.	Within Module 2, Year 7 students will cover 3 main areas of the curriculum, which are: Shape, Statistics, Number.	Within Module 3, Year 7 students will cover 3 main areas of the curriculum, which are: Algebra, Probability, Ratio.
Knowledge and Skills	Number: FDP, percentages, 4 operations with integers, decimals, fractions and mixed numbers, converting between mixed numbers and improper fractions, estimation, factors, multiples, squares and cubes. Statistics: Grouping data, types of data, representing and interpreting data, identifying correlation from scatter graphs. Ratio: converting metric and time units, percentage increase and decrease, percentage change, area and volume units, upper and lower bounds, error intervals.	Shape: Congruent shapes, area and perimeter of compound shapes, area and circumference of circles, volume of prisms and cylinders, plans and elevations, nets of 3D shapes, Pythagoras' Theorem. Statistics: Averages and the range from a list of data and from a table of values/grouped table of values, comparing datasets, Number: Completing calculations involving directed numbers, negative fractions, and BIDMAS, working with temperatures.	Algebra: Algebraic notation, simplifying expressions, expanding and factorising, substitution, solving equations with brackets, coordinates, equation of a straight line. Probability: Calculating expected outcomes, relative frequency, probability of events not happening, independent vs. mutually exclusive events. Ratio: simplifying ratios involving different units, writing ratios in the form 1:n and n:1, sharing amounts in a given ratio, finding amounts when the difference between ratios is given.
Literacy Links	**Reading**: Reading a number and recognising how many decimal places or significant figures there are. **Writing**: Write fractions in their simplest form. **Oracy**: Explain the difference between discrete and continuous data.	**Reading**: Reading names of 2D and 3D shapes and recognising their properties. **Writing**: Write the formulae for area and circumference of a circle. **Oracy**: Explain how to calculate averages and the range from grouped frequency tables.	**Reading**: Reading coordinates and recognising the x- and y-values. **Writing**: Write correct P(A') = P(not A) = 1 – P(A) notation. **Oracy**: Explain the difference between independent and mutually exclusive events.
Essential Vocabulary	Significant figure, simplify, convert, calculate, factor, multiple, bounds, error interval, units, correlation, continuous, discrete.	Perimeter, area, compound, volume, elevation, circumference, hypotenuse, average, frequency, negative.	Variable, expression, factorise, expand, coordinates, probability, ratio, share, outcome, relative frequency, independent, mutually exclusive.
Catholic Social Teaching	OPTION FOR THE POOR **Option for the poor –** In learning about ratios, students will discuss concepts of fairness and equity, including sharing resources.	HUMAN DIGNITY **Human Dignity –** In learning how to calculate averages and the range, students see that there can be differences between those included within a group.	SOLIDARITY **Solidarity -** Students will learn about the importance of a systematic structure in algebra, which mirrors the importance of order and structure in life.

Disciplinary Reading



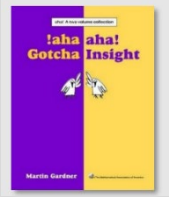
The Number Devil
By Hans Magnus Enzensberger

Reading for Pleasure



A Mathematical Pandora's Box
By Brian Bolt

The Indisputable existence of Santa Claus
By Dr Hannah Fry and Dr Thomas Oleron Evans



Aha! Gotcha
Aha! Insight
By Martin Gardner