Subject: Mathematics

Kay Stage 3 Curriculum Plan

Year: 7

Department Information:

Year 7, Pearson Edexcel Ks3 Mathematics, 8 lessons a fortnight, home learning expectation 30 minutes per week.

Maths Teachers:
Mr Morris - Associate Senior Leader of Mathematics and Computing/ Mrs Randeree - Subject Lead of Mathematics.
Mrs Bhushan, Mr Boot, Mr Haghazali, Mr Addo, Mrs Akram, Mr Banerji, Mrs Lipscombe Holmes.

Curriculum aims and intent:

At Key Stage 3, students develop a secure foundation in mathematics by building their knowledge and understanding across number, algebra, geometry, statistics and probability. They revisit and extend key concepts including fractions, decimals, percentages, algebraic manipulation, equations, graphs, coordinates, geometry and data analysis.

The curriculum is designed around the National Curriculum strands of fluency, mathematical reasoning and problem solving, enabling students to become confident and independent mathematicians. Mathematics also supports whole-school literacy by developing students' use of precise mathematical vocabulary, their ability to interpret and analyse information, and their skills in communicating mathematical reasoning clearly and accurately.

Assessment:

Assessments are completed at the end of each chapter and include retrieval questions to revisit and reinforce prior learning from primary school.
Assessment scores are averaged across the academic year to support decisions regarding set movements, ensuring students are placed in the most appropriate learning environment. Grades are reported using the schools starting point grading system.

Resources used to support learning:

https://activehub.pearson.com/#/login
Students can log in using their school email. Passwords students have created and have written down in their Maths books.
If a student has forgotten their password this can be refreshed by presssing the forget password troubleshoot. Students will be sent an email to their school gmail account.
https://corbettmaths.com/contents/
https://yesgenie.com/

Home Learning:

Homework can be online worksheets sent on students Edulink. It also can be online work completed on Active Hub.
Students are expected to complete one 30 minute homework weekly. Homework is an essential part of the learning process, helping students to consolidate and extend their understanding of topics taught in lessons. Regular completion of homework provides valuable retrieval practice, strengthening long-term retention.

How parents can help their child:

All students need to have the correct equipment every Maths lesson from the following: protractor, ruler, pencil, pen, compass, scientifice calculator such as: http://tiny.cc/czm4101
Parents can support their child's progress by encouraging them to complete their home learning each week. Establishing a regular routine of one 30-minute homework session per week helps to reinforce learning, develop good study habits and maximise progress both in and beyond the classroom.

Term	Summary of work being covered	Knowledge, Understanding and skills assessed	How the work is assessed	Career Links
1	Chapter 1 Analysing and displaying data Chapter 2 Number Skills	Mode, median and range/ Displaying data/ Grouping data/ Averages and comparing data/ Line graphs and more bar charts Mental maths/ Addition and subtraction/ Multiplication/ Division/ Money and time/ Negative numbers/ Factors, multiples and primes/ Square numbers	Chapter 1 Test out of 30 marks Chapter 2 Test out of 30 marks	Data science (analysing large datasets and trends) Market research (interpreting survey and consumer data) Sports analytics (performance and match statistics)
2	Chapter 3 Expressions, Functions and Formulae Chapter 4 Decimals and Measures	Functions/ Simplifying expressions/ Writing expressions/Substituting into formulae/ Writing formulae Decimals and rounding/ Length, mass and capacity/ Scales and measures/ Working with decimals mentally/ Working with decimals/ Perimeter/ Area/ More units of measure	Chapter 3 Test out of 30 marks End of Term Test out of 40 marks.	Finance and banking (calculations, percentages, interest) Engineering (measurements, precision, and scaling)
3	Chapter 5 Fractions and percentages Chapter 6 Probability	Comparing fractions/ Simplifying fractions/ Working with fractions/ Fractions and decimals/ Understanding percentages/ Percentages of amounts The language of probability/ Calculating probability/ More probability calculations/ Experimental probability/ Expected outcomes.	Chapter 5 Test out of 30 marks Chapter 6 Test out of 30 marks	Architecture (calculating areas and designing spaces) Engineering (volume, capacity, and structural design) Construction (materials, surface area, and costing) Manufacturing (designing and producing 3D objects)
4	Chapter 7 Ratio and proportion	Direct proportion/ Writing ratios/ Using ratios/ Ratios, proportions and fractions/ Proportions and percentages	Chapter 7 Test out of 30 marks	Engineering (scaling designs, mixing materials) Medicine & pharmacy (drug dosages and concentrations) Finance (interest rates, profit ratios)
5	Chapter 8 Lines and Angles Chapter 9 Sequences and Graphs	Measuring and drawing angles/ Lines, angles and triangles/ Drawing triangles accurately/ Calculating angles/ Angles in a triangle/ Quadrilaterals/ Sequences/ Pattern sequences/ Coordinates and midpoints/ Extending sequences/ Straight-line graphs/ Position-to-term rules	Chapter 8 Test out of 30 marks Chapter 9 Test out of 30 marks	Surveying (measuring land and boundaries) Construction (ensuring correct angles and alignment) Game design & animation (spatial modelling and environments)
6	Chapter 10 Transformations	Congruency and enlargements/ Symmetry/ Reflection/ Rotation/ Translations and combined transformations	Chapter 10 Test out of 30 marks End of Year exam out of 50 marks.	Architecture (using transformations in design plans) Computer graphics & animation (rotations, reflections, scaling) Game design (movement and positioning using coordinates)