Subject: Mathematics

Kay Stage 3 Curriculum Plan

Year: 8

Department Information:

Year 8, 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 Year 7 and 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 Number Chapter 2 Area and Volume	Calculations/ Divisibility and division/ Calculating with negative integers/ Powers and roots/ Powers, roots and brackets/ Multiples and factors Area of a triangle/ Area of a parallelogram and trapezium/ Volume of cubes and cuboids/ 2D representations of 3D solids/ Surface area of cubes and cuboids/ Measures	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) Construction
2	Chapter 3 Statistics, graphs and charts Chapter 4 Expressions and equations	Pie charts/ Using tables/Stem and leaf diagrams/ Comparing data/ Scatter graphs/Misleading graphs/ Algebraic powers/ Expressions and brackets/ Factorising expressions/ One-step equations/Two-step equations/ The balancing method	Chapter 3 Test out of 30 marks End of Term Test out of 40 marks.	Data science (analysing large datasets and trends) Market research (understanding customer behaviour) Medicine & healthcare (analysing patient and trial data) Sports analytics (player and performance statistics) Government & policy
3	Chapter 5 Real life Graphs	Conversion graphs/ Distance-time graphs/ Line graphs/ More line graphs/ Real-life graphs/ Curved graphs	Chapter 5 Test out of 30 marks	Data science (analysing trends and making predictions) Engineering (modelling forces, motion, and systems) Economics (graphing supply, demand, and change over time)
4	Chapter 6 Decimals and ratio Chapter 7 Lines and Angle	Ordering decimals and rounding/ Place-value calculations/ Calculations with decimals/ Ratio and proportion with decimals/ Quadrilaterals/ Alternate angles and proof/ Angles in parallel lines/ Exterior and interior angles/ Solving geometric problems	Chapter 6 Test out of 30 marks Chapter 7 Test out of 30 marks	Architecture (designing accurate structures and layouts) Surveying (measuring land and boundaries) Construction (ensuring correct angles and alignment) Game design & animation (spatial modelling and environments)
5	Chapter 8 Calculations with Fractions Chapter 9 Straight line graphs	Ordering fractions/ Adding and subtracting fractions/ Multiplying fractions/ Dividing fractions/ Calculating with mixed numbers Direct proportion on graphs/ Gradients/ Equations of straight lines	Chapter 8 Test out of 30 marks Chapter 9 Test out of 30 marks	Finance and banking (interest, profit, tax, discounts) Retail and business (pricing, percentages, sales data) Healthcare (dosages and proportions) Architecture (coordinate systems and design) Game design (coordinate geometry)
6	Chapter 10 Percentages, Decimals and Fractions	Fractions and decimals/ Equivalent proportions/ Writing percentages/ Percentages of amounts	Chapter 10 Test out of 30 marks End of Year exam out of 50 marks.	Finance and banking (interest, profit, tax, discounts) Retail and business (pricing, percentages, sales data) Engineering (precision measurements and scaling) Healthcare (dosages and proportions)