Maths Key Stage 3 Curriculum Plan Year 7

Department Information:
Students have 8 one-hour lessons per fortnight. All students follow the National Curriculum which is supported by differentiated textbooks and resources to ensure students are challenged and supported appropriately. Students are assessed regularly and time in class is given for students to address any areas for development. The school subscribes to Sparx Maths, and this is set weekly for students to engage in independent study outside of lessons.

ACHIEVE in the curriculum:
*Students are encouraged to work **collaboratively** on problems, to show **ambition** through the resources they opt to work on, to show **endurance** to master concepts and to demonstrate **integrity** in their personalised home learning. We strive for students to share in our love of maths and ultimately be **happy** in their lessons.*

Curriculum Aims & Intent:
Students should build on key stage 2 and make connections across mathematical ideas to develop fluency, mathematical reasoning and competence in solving increasingly sophisticated problems. They should also apply their mathematical knowledge in science, geography, computing and other subjects.
The course content covers:
Number,
Algebra,
Ratio, proportion and rates of change,
Geometry and measures,
Probability,
Statistics.

Resources:
https://www.pearsonactivelearn.com/app/home - online Maths Progress 1 textbooks (login as a student with school email and password: FurzePlatt1).
https://www.sparxmaths.uk/ - (select school and then click 'Login using Microsoft)
https://login.mymaths.co.uk/login (School username: furze password: reflect. Students are given their own portal login details in September)
https://play.ttrockstars.com/auth/school/student/1586 - Times Tables practice. (Username: MyMaths portal 4 numbers; password: MyMaths portal 3 letters)
www.nrich.org.uk – Enrichment resources for problem solving.
https://ukmt.org.uk/junior-challenges/junior-mathematical-challenge -past papers.

Students should bring to all Maths lessons: Pen, Pencil, Ruler, Eraser, Scientific Calculator (we recommend the Casio fx-83GT CW / fx-85GT CW) and laptops.

How we keep parents informed:
Progress reports are published 4 times per year, in October, December, April and July, with a face-to-face parents' evening in May.

How parents can help their child:
Please check that your child regularly completes their personalised SparxMaths home learning, which is set every Monday, and due the following Monday. Encourage them to seek help if they are struggling, but do not answer questions for them as the questions could quickly become too challenging. Please also ensure your child brings the appropriate equipment, including a calculator and laptop, to every maths lesson.

What we study and when:					
Term	**Unit, Topic Or Summary Of Work Covered**	**Knowledge, Understanding & Skills Developed**	**ACHIEVE / Personal Development Focus**	**How The Work Is Assessed**	**Careers Links**
1	Number Skills	Addition, subtraction, multiplication, division - Money and time - Negative numbers - Factors, multiples, primes, squares.	All lessons offer opportunities for students to demonstrate our ACHIEVE values.	Unit assessment	Contextual problems involving weather, bank balance.
	Analysing and Displaying Data	Averages and range - Displaying data - Comparing data - Graphs and charts		Unit assessment	Statistician
2	Expressions, functions & formulae	Functions - Simplifying expressions - Writing expressions - Substitution - Writing formulae		Cumulative assessment of all content to date.	Using formulae for working out hire costs, rate of pay, fixed charges.
	Decimals & measures	Decimals and rounding - Length, mass, capacity - Scales and measures - Perimeter and area		Unit assessment	Garden design, building projects, quantity surveyor.
3	Fractions and percentages	Comparing and simplifying fractions - Calculating with fractions - Fractions and decimals - Percentages		Unit assessment	Easter Home Learning Task: https://careerpilot.org.uk/job-sectors/subject/maths Research a job that requires maths and be prepared to share your findings (poster/presentation)
	Probability	Intro to probability - Calculating probabilities - Experimental probability - Expected outcomes		Cumulative assessment of all content to date.	
4	Ratio and proportion	Direct proportion - Intro to ratio - Ratios, proportions and fractions - Proportions and percentages		Unit assessment	Contextual problems involving recipes, building projects; banking, hairdressing, chemist, pharmacist.
	Lines and angles	Measuring and drawing angles - Drawing triangles - Calculating angles: straight lines, triangles, quadrilaterals.		Unit assessment	
5	Sequences and graphs	Sequences - Coordinates and mid-points - Straight line graphs		Unit assessment	
	Transformations	Congruency and enlargement - Reflection - Rotation - Translations - Combined transformations		Cumulative assessment of all content to date.	
6	Area and volume	Area of a triangle, parallelogram, trapezium - Volume of a cuboid - 2D representations of 3D solids - Surface area of a cuboid		Formative tasks in class	Architecture
	Statistics, graphs and charts	Pie charts, tables - Stem and leaf diagrams - Comparing data - Scatter graphs - Misleading graphs		Formative tasks in class	Data analyst