All Saints' Academy Mathematics KS3 Curriculum

Cycle	7			8			9		
	Knowledge & Skills	Enrichment	Cross-Curricular	Knowledge & Skills	Enrichment	Cross-Curricular	Knowledge & Skills	Enrichment	Cross-Curricular
1	**Number** Positive and Negative Integers; Place Value **Algebra** Simplifying and collecting terms; Simple equations *End of Module Assessment*	*Fortnightly Number Challenge*	**Physics:** Finding Potential Difference, Current and Resistance by rearranging V=IR	**Number** Factors & Multiples; Rounding & Estimation; Error Intervals; Percentage increase/decrease. **Ratio** Dividing ratio into parts; Scale factors & scale diagrams; Speed – distance – time. *End of Module Assessment*	*Smoothies Project*	**LIFE Programme:** Estimate the cost of a typical weekly shop by rounding to nearest pound **Physics:** Share the potential difference across two resistors in a series circuit	**Algebra** Factorising; Expanding double brackets; Rearranging formulae; Linear, quadratic, reciprocal and exponential graphs; Graphical solution of straight line equations; Geometric Sequences. *End of Module Assessment*	*Frogs Project*	**PE:** Look at the flight of a ball as a quadratic parabolic shape **Art:** Look at Art which can be generated by various number sequences
Careers	**Accountancy Jobs**			**Architecture**			**Data Scientist**		
2	**Number** Equivalence of fractions; Four operations on fractions; Percentages and FDP, simple percentage increase. **Statistics** Line and bar charts; Averages. *End of Module Test Assessment*	*Showersave Project*	**Geography:** Use examples of populations and demographic to consider bar charts	**Algebra** Substitution into formulae and expressions; Multiplying over a single bracket; Solving linear equations; Plotting and sketching linear functions; $y = mx + c$; Sequences and nth term. *End of Module Test Assessment*	*Algebra Challenge*	**Physics:** Look at the straight-line graph for Hook's Law	**Geometry** Line segments; Constructions; Volume and surface area of prisms, cylinders and composite solids Transformations; Similar & Congruent triangles; Pythagoras' Theorem; Euler's Formula and Solid shapes. *End of Module Test Assessment*	**UKMT Intermediate Maths Challenge**	**DT:** Look at the strength of triangles. Technical drawing aspects of mathematical constructions
Careers	**Financial Advisor**			**Research Scientist**			**Carpentry**		

3	Geometry Types of angle, angles in parallel lines & triangles; Transformations - translation, reflection, rotation; Symmetry & Congruence; Perimeter & Area. *End of Module Test Assessment*	**UKMT Junior Maths Challenge**	**Business Studies:** Look at use of farming space and profit and expenditure	**Geometry** Quadrilaterals; Polygons and angles; Area and perimeter of quadrilaterals; Circumference & Area of Circles **Statistics** Pie charts; Scatter graphs. *End of Module Test Assessment*	**UKMT Junior Maths Challenge**	**Geography/ Physics:** Circumference and radius of Earth and other planets **Business Studies/ Geography:** Look at % spend of GDP by Government	**Probability** Simple probability and experiments; Sum of outcomes; Sample space diagrams; Venn diagrams. **Statistics** Discrete, continuous and grouped data; Measures of Central Tendency. *End of Module Test Assessment*		**LIFE Programme:** Look at simple probabilities of gambling **English:** Text Analysis comparison of similar texts
Careers	**Computer Games Designer**			**Animator**			**Actuary**		