**All Saints’ Academy Mathematics KS3 Curriculum**

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| 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;  ;  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** | | |