Maths: Organised and Ready for Year 8 Summer Exams

1. Before you start revising, get all your notes sorted, and draw up a list of all the topics you need to cover. Plan exactly when you are going to revise, and be strict with yourself with treats to look forward to.

Unit 1- Number	**Unit 4- Algebra**	**Unit 7- Angles**
Rounding and Estimating	Collecting like terms in expressions	Properties of quadrilaterals
Arithmetic with Negative numbers	Expanding brackets	Angles of a straight line = 180˚
Division and Long division	Writing expressions involving brackets	Angles about a point = 360˚
Divisibility rules	Factorising single brackets	Angles in a triangle = 180˚
Powers, Roots and BODMAS	Function machines	Base angles in an isosceles triangle are equal
Prime factorisation (factor tree)	Solving equations with brackets	Vertically opposite angles are equal
	Solving equations with unknown values both sides	Angles in parallel lines
Unit 2- Area and Volume	Solving equations with fractions	Interior angles in polygons ((n-2)x180)
Area of a rectangle	Solving equations involving geometric shapes	Exterior angles in polygons (Add up to 360)
Area of a triangle		Using these facts in multi- step problems
Area of a parallelogram	**Unit 5- Real life graphs**	Constructing triangles
Area of a trapezium	Conversion graphs	
Volume of cubes and cuboids	Speed, time, distance graphs	**Unit 8- Fractions**
Nets, plans and elevations	Travel graphs	Simplifying fractions
Surface area of cuboids	Line graphs	Equivalent fractions
Isometric drawings	Real life graphs (objects filling up, etc)	Ordering fractions
Imperial measures	Curved graphs	Converting between mixed numbers and improper fractions
Metric measures	Graphs when values are in proportion	Adding and subtracting fractions
		Multiplying fractions
Unit 3- Data Handling	**Unit 6- Decimals and ratio**	Dividing fractions
Pie charts (drawing and interpreting)	Add and subtract decimals	Adding mixed numbers
Two way tables	Multiply by decimals	Subtracting mixed numbers
Averages (Mean, median, mode and range)	Divide by decimals	Multiplying mixed numbers
Averages from a table (Mean, median, mode and range)	Rounding to decimals and significant figures	Dividing mixed numbers
Stem and leaf diagrams (comparing and drawing)	Estimation by rounding	
Comparing data from lists, diagrams and graphs	Simplifying ratio (including with decimals or different units)	**Unit 9- Graphs**
Scatter diagrams	Writing ratio in n:1 and 1:n	Direct proportion from tables
Know when a graph is misleading	Ratios as fractions and vice versa	Direct proportion from graphs
	Sharing amounts in ratio	Plotting straight lines from tables
		Finding the gradient of a straight line from a graph
		Finding the equation of a straight line from a graph

2. Don't just read your notes! The only way to revise maths is to do maths. You will do much better spending 20 minutes doing maths questions than spending two hours just reading a textbook. The more questions you do yourself, the more you will get right, the higher your confidence will be, the more you will enjoy your revision, and the better you will do in the exam.

3. Use the internet. The internet is like having your own personal teacher who is available for you whenever you like. We recommend Sparx Maths and Mymaths but there are other websites that can set you questions and mark them for you, take you through step-by-step how to tackle certain topics, and use fancy illustrations and animations that might just make that really annoying topic finally make sense.

4. Don't just practice the topics you can do. If you are really good at fractions, for example, it is very tempting to keep doing lots of fractions questions and then smiling as you keep getting them right. But unfortunately the exam is probably not going to have more than one or two fractions questions. Although it can be painful, work your way through the topics that you struggle with, because it is much better to struggle on them at home, when you have time on your side and the answers available, than it is to struggle in the exam.

5. Make sure you ask for help. Again, once you are in the exam you are on your own, but during revision you are certainly not. If you are stuck on a topic or a question, then ask one of the people from your class, or your teacher, or someone at home, or look on the internet. Don't suffer alone!

6. Practice doing questions under exam conditions. Get someone to pick you a set of questions from your textbook, or get some from a maths website, and try doing them in silence, with no help, for a fixed amount of time. This will get you used to what it will be like in the exam, how fast you need to go, and is the best way of checking that you really understand a topic.

7. Practice using your calculator! Many people seem to assume that any question that lets you use a calculator is easy, and all calculators work the same. Those people are wrong on both counts. All calculators work differently, and unless you have used yours for lots of different types of questions (trig, Pythagoras, negative numbers, indices), you might come unstuck in the exam. Find out if there are any problems early enough to correct them, and don't forget to bring your calculator to the exam.

8. Most important of all, try not to worry. A little worry is not a bad thing as it keeps you focused, but revision certainly shouldn't be a stressful time. It should be a time where your brain gets chance to sort all the information it has been bombarded with and make sense of everything.