Maths

LET ALL OUR BRIGHT COLOURS SHINE

Year 7 Curriculum Map

	# Year 7 – Autumn Term
Prior Learning	All of the schemes build upon prior learning done in key stage 2. A number of our feeder primaries use the similar mastery approach to Mathematics following either the White Rose Maths scheme or the Power Maths scheme, we build upon this during the Autumn Term. We also recognise that in the key stage 2 curriculum there is less of a focus on Algebra, therefore our focus is on algebraic thinking, starting with an exploration of sequences, both diagrams and numbers. Pupils will have used number lines, negative numbers and tenths/hundredths/etc… during their time in key stage 2.
What will I learn?	Pupils will begin the term learning all about *algebraic thinking*, starting with exploring sequences, followed by looking at understanding and using algebraic notation, and investigating equality and equivalence. The remainder of the Autumn Term will be spent looking at *place value and proportion*, with pupils looking at both place value and ordering integers and decimals and fractions, decimals, percentages and their equivalence. Each of the topic areas are broken down into small steps for pupils to master. Topics from the first half of the autumn term will be interleaved during the retrieval practice in second part of the term.
How will I be assessed?	Pupils are assessed in 3 ways. • Constant lesson by lesson assessment. • Five mini-assessments on each of the areas of study highlighted above. • One large summative assessment covering all of the key knowledge from the autumn term and recalling previous knowledge from key stage 2.
Next Steps	Pupils will move on to looking at the following topics in the spring term: *Application of Number, Fraction & Percentages of Amounts, Directed Number, Fractional Thinking.* This will introduce pupils to new units of number, but also build upon the topics in the autumn term. The concepts from this term will be built upon further in year 7 half term 6 - Developing number sense and in year 8 half term 1 - Multiplicative change, year 8 half term 2 - Representing data; Y8 HT3 - Sequences; year 8 half term 4 - Fractions & Percentages.
Opportunities for Independent Learning	Sparx Maths – Compulsory Tasks (1 Hour per week) Sparx Maths – XP Boost and Target Homework Activities. BBC Bitesize
Personal Development and CEIAG	Looking for patterns is a skill needed in many career choices. Algebraic skills are needed for computing, gaming and engineering as well as many other areas. Numeracy is an essential life skill, understanding number is an integral part of everyday life both at work and at home. Estimation can be used in a variety of contexts such as in a weekly food shop.
Enrichment Opportunities (Cultural Capital)	Pupils will look for patterns in everyday life, eg tiles, using percentages in everyday life, eg banking and using fractions in everyday life, eg portioning food.

	# Year 7 – Spring Term

Prior Learning	All of the schemes build upon prior learning done in key stage 2 and the learning from the autumn term. A number of our feeder primaries use the similar mastery approach to Mathematics following either the white rose scheme of the power maths scheme, we will continue to build upon this during the spring term. Having spent time in the autumn term looking at algebraic principles and fractions and decimals, as we move onto number, we would assume that the pupils are able to competently perform the four rules of number with integers.
What will I learn?	Pupils will begin the term learning all about the *application of number*, starting with solving problems with addition and subtraction, followed by looking at solving problems with multiplication and division, before finishing the half-term looking at fractions and percentages of amounts. The remainder of the spring term will be spent looking at *directed number* and *fractional thinking*, with pupils looking at both operations and equations with directed number and addition and subtraction of fractions. Each of the topic areas are broken down into small steps for pupils to master. Topics from the first half of the Autumn term will be interleaved during the term within the retrieval practice.
How will I be assessed?	Pupils are assessed in 3 ways. • Constant lesson by lesson assessment. • Five mini assessments on each of the areas of study highlighted above. • One large summative assessment covering all of the key knowledge from the spring term and recalling previous knowledge from key stage 2 and the autumn term.
Next Steps	Pupils will move on to looking at the following topics in the summer term: *Lines & Angles;* and *Reasoning with Number.* This will introduce pupils to new units of shape, space and measure, and data handling, but also build upon the topics from the previous two terms. The concepts from this term will be built upon further in year 7 half term 6 - Developing number sense and year 7 half term 6 - Sets & Probability; and also, in year 8 half term 1 - Multiplying & Dividing Fractions; year 8 half term 2 – Tables & Probability; year 8 half term 4 - Fractions & Percentages.
Opportunities for Independent Learning	Sparx Maths – Compulsory Tasks (1 Hour per week) Sparx Maths – XP Boost and Target Homework Activities. BBC Bitesize
Personal Development and CEIAG	Numeracy skills are essential to everyday life. The use of percentages can be seen in bank accounts, mortgages, loans and investments (e.g.) the amount of interest paid on a loan is usually given as a percentage. Directed number is important in the understanding of bank accounts, weather forecasts, temperature and sea level.
Enrichment Opportunities (Cultural Capital)	Pupils will be using probability in everyday life, eg weather report, using percentages in everyday life, eg banking and using fractions in everyday life, eg portioning food.

	Year 7 – Summer Term
Prior Learning	All of the schemes build upon prior learning done in key stage 2 and the prior learning from the autumn and spring terms. A number of our feeder primaries use the similar mastery approach to Mathematics following either the white rose scheme of the power maths scheme, we build upon this during the autumn term. During the autumn and spring terms there has been a greater emphasis on using algebra and number, so it would be right to spend more time looking after geometrical reasoning and probability. There will also be a continuation of some of the number work from previous terms.
What will I learn?	Pupils will begin the term learning all about *lines and angles*, starting with constructing, measuring and using geometric notation, followed by looking at developing geometric reasoning. The remainder of the summer term will be spent looking at *reasoning with number*, with pupils looking at developing number sense; understanding and using sets and probability and working with prime numbers and proof. Each of the topic areas are broken down into small steps for pupils to master. Topics from the first half of the autumn and spring terms will be interleaved during the term within the retrieval practice.
How will I be assessed?	Pupils are assessed in 3 ways. • Constant lesson by lesson assessment. • Five mini assessments on each of the areas of study highlighted above. • One large summative assessment covering all of the key knowledge from the summer term, and recalling previous knowledge from key stage 2, and the autumn and spring terms.
Next Steps	Pupils will move on to looking at the following topics in the autumn term of year 8: *Proportional Reasoning* and *Representations.* This will build upon the concepts introduced during year 7. The concepts from this term will be built upon further in year 8 half term 2 - Representing Data and Lines and Angles in year 8 half term 5 - Angles in parallel lines and polygons. Pupils will study probability further in half term 2 of year 8 (Tables & Probability). Fractions and percentages are also revisited in half term 4 of year 8.
Opportunities for Independent Learning	Sparx Maths – Compulsory Tasks (1 Hour per week) Sparx Maths – XP Boost and Target Homework Activities. BBC Bitesize
Personal Development and CEIAG	Construction skills are used in many career paths such as architecture, engineering and art. Construction and understanding of how data is displayed in a skill needed in many jobs and in daily life, such as understanding newspaper articles. Bearings are used in the shipping and aerospace industries to help navigation. Being able to calculate mentally is an extremely important life skill, whether you are working out the cost of a weekly shop or budgeting for a project at work. Probability is used in everyday thinking as you determine the best course of action with a problem.
Enrichment Opportunities (Cultural Capital)	Pupils will look for shapes in everyday life, eg tiles, reading pie charts in everyday life, eg newspapers, internet and using probability in everyday life, eg weather reports.