

Whole School MATHS Curriculum

TERM (WEEKS)	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
ASPIRATIONS FOCUS	BELONGING	CURIOSITY & CREATIVITY	HEROES	SPIRIT OF ADVENTURE	LEADERSHIP & RESPONSIBILITY	FUN and EXCITEMENT
YEAR 3	LOCATION, LOCATION, LOCATION	STONES AND BONES	AWESOME ANCIENT EGYPTIANS	AVENGERS ASSEMBLE!	PLANT POWER	ALL THE WORLD'S A STAGE
	<p><u>Number sense and exploring calculation strategies</u></p> <ul style="list-style-type: none"> • Read, write, order and compare numbers to 100 • Calculate mentally using known facts, round and adjust, near doubles, adding on to find the difference • Derive new facts from a known fact <p><u>Place value</u></p> <ul style="list-style-type: none"> • Read, write, represent, partition, order and compare 3-digit numbers • Find 10 and 100 more or less • Round to the nearest multiple of 10 and 100 <p><u>Graphs</u></p> <ul style="list-style-type: none"> • Collect, interpret and present data using charts and tables 	<p><u>Addition and subtraction</u></p> <ul style="list-style-type: none"> • Develop and use a range of mental calculation strategies • Illustrate and explain formal written methods – column method <p><u>Length and perimeter</u></p> <ul style="list-style-type: none"> • Measure, draw and compare lengths • Add and subtract lengths • Calculate perimeter 	<p><u>Multiplication and division</u></p> <ul style="list-style-type: none"> • Multiplication and division facts for 2, 3, 4, 5, 6, 8 and 10 • Multiplicative structures: equal groups/parts, change and comparison, correspondence problems • Relationships: commutativity and inverse <p><u>Deriving multiplication and division facts</u></p> <ul style="list-style-type: none"> • Multiply and divide by 10 and 100 • Multiply a 2-digit number by 2, 3, 4, 5 and corresponding division situations • Divide 2-digit by a 1-digit 	<p><u>Time</u></p> <ul style="list-style-type: none"> • Tell, record, write and order the time analogue and digital • 12-hour, a.m., p.m. • Measure, calculate and compare durations <p><u>Fractions</u></p> <ul style="list-style-type: none"> • Part-whole relationships • Fractions as part of a whole or a whole set and as a number • Add, subtract, compare and order fractions 	<p><u>Angles and Shape</u></p> <ul style="list-style-type: none"> • Identify angles including right angles and recognise as a quarter of a turn • Identify and draw parallel and perpendicular lines • Draw/make, classify and compare 2-D and 3-D shapes • Measure the perimeter <p><u>Measures</u></p> <ul style="list-style-type: none"> • Read scales with different intervals when measuring mass and volume • Weigh and compare masses and capacities with mixed units • Estimate mass and capacity 	<p><u>Securing multiplication and division</u></p> <ul style="list-style-type: none"> • Recall and use multiplication and division facts for 6 and 8 times table <p><u>Exploring calculation strategies and place value</u></p> <ul style="list-style-type: none"> • Add and subtract mentally • Find 10, 100 and 1000 more or less • Order and compare beyond 1000 • Round numbers
YEAR 4	DESTINATION EUROPE	ROCK BAND	TIME COP	I'M A CHILD, GET ME OUT OF HERE!	WELCOME TO HONEYDUKES!	ALL THE WORLD'S A STAGE
	<p><u>Reasoning with large numbers</u></p> <ul style="list-style-type: none"> • 4-digit place value. Read, write, represent, order and compare • Find 10, 100 or 1000 more or less 	<p><u>Multiplication and division</u></p> <ul style="list-style-type: none"> • Distributive property including multiplying three 1-digit numbers • Mental multiplication and division strategies using 	<p><u>Securing multiplication facts</u></p> <ul style="list-style-type: none"> • Identify and explore patterns in multiplication tables including 7 and 9 <p><u>Fractions</u></p>	<p><u>Decimals</u></p> <ul style="list-style-type: none"> • Decimal equivalents to tenths, quarters and halves • Compare and order numbers with same number of decimal places 	<p><u>Solving measures and money problems</u></p> <ul style="list-style-type: none"> • Convert units of measure • Select appropriate units to measure • Use strategies to investigate problems: trial 	<p><u>Position and direction</u></p> <ul style="list-style-type: none"> • Describe and plot using coordinates • Describe translations <p><u>Reasoning with pattern and sequences</u></p>

	<ul style="list-style-type: none"> Round numbers to the nearest 10, 100 or 1000 <p><u>Addition and subtraction</u></p> <ul style="list-style-type: none"> Select appropriate strategies to add and subtract Illustrate and explain appropriate addition and subtraction strategies including column method with regrouping 	<p>place value and known and derived facts</p> <ul style="list-style-type: none"> Short multiplication and division <p><u>Discrete and continuous data</u></p> <ul style="list-style-type: none"> Read, interpret and construct pictograms, bar charts and time graphs Compare tables, pictograms and bar charts 	<ul style="list-style-type: none"> Explore different interpretations and representations of fractions Equivalent fractions Represent fractions greater than one as mixed number and improper fractions Add and subtract fractions with the same denominator including fractions greater than one <p><u>Time</u></p> <ul style="list-style-type: none"> Analogue to digital, 12-hour and 24-hour Convert between units of time 	<ul style="list-style-type: none"> Multiply and divide by 10 and 100 including decimals <p><u>Area and Perimeter</u></p> <ul style="list-style-type: none"> Perimeter of rectangles and rectilinear shapes Area of rectangles and rectilinear shapes Investigate area and perimeter 	<p>and improvement, organising using lists and tables, working systematically</p> <p><u>Shape and symmetry</u></p> <ul style="list-style-type: none"> Classify, compare and order angles Compare and classify 2-D shapes Identify lines of symmetry 	<ul style="list-style-type: none"> Roman numerals up to 100 Place value of other number systems Number sequences and patterns <p><u>3-D shape</u></p> <ul style="list-style-type: none"> Use understanding of 3-D shapes Identify 3-D shapes from 2-D representations
YEAR 5	JOURNEY TO THE AMAZON	MISSION: SPACE	SAXON SETTLERS AND VIKING INVADERS	THE CIRCLE OF LIFE	THE GREAT OAKHILL SEWING BEE	ALL THE WORLD'S A STAGE
	<p><u>Reasoning with large whole integers</u></p> <ul style="list-style-type: none"> Read, write, order and compare numbers up to one million Round numbers within one million to the nearest multiple of powers of ten Read Roman numerals up to M <p><u>Integer addition and subtraction</u></p> <ul style="list-style-type: none"> Use rounding to estimate Use a range of mental calculation strategies to add and subtract integers Illustrate and explain the written method of column addition and subtraction Select efficient calculation strategies <p><u>Line graphs and timetables</u></p>	<p><u>Multiplication and division</u></p> <ul style="list-style-type: none"> Identify multiples and factors Investigate prime numbers Multiply and divide by 10, 100 and 1000 (integers) Derived facts Illustrate and explain formal multiplication and division strategies such as short and long Use a range of mental calculation strategies <p><u>Perimeter and area</u></p> <ul style="list-style-type: none"> Investigate area and perimeter of rectilinear shapes Estimate area of nonrectilinear shapes 	<p><u>Fractions and decimals</u></p> <ul style="list-style-type: none"> Read, write, order and compare decimals Round decimals to the nearest whole number Represent, identify, name, write, order and compare fractions (including improper and mixed numbers) Calculate fractions of amounts <p><u>Angles</u></p> <ul style="list-style-type: none"> Classify, compare and order angles Measure and draw angles with a protractor Understand and use angle facts to calculate missing angles 	<p><u>Fractions and percentages</u></p> <ul style="list-style-type: none"> Add, subtract fractions with denominators that are multiples of the same number Multiply fractions (and mixed numbers) by a whole number Explore percentage, decimal, fractions equivalence <p><u>Transformations</u></p> <ul style="list-style-type: none"> Coordinates in all four quadrants Translation and reflection Calculate intervals across zero as a context for negative numbers 	<p><u>Converting units of measure</u></p> <ul style="list-style-type: none"> Convert between metric units of length, mass and capacity and units of time Know and use approximate conversion between imperial and metric <p><u>Calculating with whole numbers and decimals</u></p> <ul style="list-style-type: none"> Mental strategies to add and subtract involving decimals Formal written strategies to add, subtract and multiply involving decimals Multiply and divide by 10, 100 and 1000 involving decimals Derive multiplication facts involving decimals 	<p><u>2-D and 3-D shape</u></p> <ul style="list-style-type: none"> Classify 2-D shapes and reason about regular and irregular polygons Properties of diagonals of quadrilaterals Classify 3-D shapes 2-D representations of 3-D shapes. <p><u>Volume</u></p> <ul style="list-style-type: none"> Use cube numbers and notation Estimate volume Convert units of volume <p><u>Problem solving</u></p> <ul style="list-style-type: none"> Negative numbers and calculating intervals across zero Calculating the mean Interpret remainders Investigate

	<ul style="list-style-type: none"> •Complete, read and interpret data presented in line graphs •Read and interpret timetables including calculating intervals 					numbers: consecutive, palindromic, multiples
YEAR 6	RING OF FIRE	SHEDDING SOME LIGHT	YOUR COUNTRY NEEDS YOU!	AT THE HEART OF IT ALL	MAKING MEMORIES	ALL THE WORLD'S A STAGE
	<p><u>Integers and decimals</u></p> <ul style="list-style-type: none"> •Represent, read, write, order and compare numbers up to ten million •Round numbers, make estimates and use this to solve problems in context •Solve multi-step problems involving addition and subtraction <p><u>Multiplication and division</u></p> <ul style="list-style-type: none"> •Identify and use properties of number, focusing on primes •Multiply larger integers and decimal numbers using a range of strategies •Divide integers by 1-digit and 2-digit numbers representing remainders appropriately •Illustrate and explain formal multiplication and division strategies 	<p><u>Calculation problems</u></p> <ul style="list-style-type: none"> •Understand the use of brackets •Use knowledge of the order of operations to carry out calculations •Generate and describe linear number sequences •Express missing number problems algebraically •Solve equations with unknown values <p><u>Fractions</u></p> <ul style="list-style-type: none"> •Deepen understanding of equivalence •Order, simplify and compare fractions, including those greater than one •Recall equivalence between common fractions and decimals •Find decimal quotients using short division •Add and subtract fractions <p><u>Missing angles and length</u></p> <ul style="list-style-type: none"> •Compare and classify a range of geometric shapes •Use angle facts to find unknown angles 	<p><u>Coordinates and shapes</u></p> <ul style="list-style-type: none"> •Draw a range of geometric shapes using given dimensions and angles •Describe, draw, translate and reflect shapes on a co-ordinate plane •Recognise and construct 3-D shapes •Name and illustrate parts of a circle <p><u>Fractions</u></p> <ul style="list-style-type: none"> •Represent multiplication involving fractions •Multiply two proper fractions •Divide a fraction by an integer <p><u>Decimals and measure</u></p> <p>Use, read, write and convert between standard units of measures; length, mass, time, money and volume as well as imperial units</p> <ul style="list-style-type: none"> •Calculate the area of parallelograms and triangles •Calculate, estimate and compare the volume of cuboids 	<p><u>Percentage and statistics</u></p> <ul style="list-style-type: none"> •Calculate and compare percentages of amounts •Connect percentages with fractions •Explore the equivalence of fractions, decimals and percentages •Calculate the mean •Construct and interpret lines graphs and pie charts •Compare pie charts <p><u>Proportion problems</u></p> <ul style="list-style-type: none"> •Use fractions to express proportion •Identify ratio as a relationship between quantities and as a scale factor •Unequal sharing involving ratio 	<p>REVISION OF KS2 CURRICULUM</p>	<p>REVISION OF KS2 CURRICULUM</p> <p>Problem Solving and Investigative skills</p>