Primary - Maths

Year 4

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Unit	• Number and the Number system • Counting and Constructing	• Investigating properties shapes • Calculating: Addition and Subtraction • Calculating: Multiplying and dividing	• Calculating: Multiplying and dividing • Assessment and Enrichment • Exploring time and money • Exploring fractions, decimals and percentages	• Measuring Space • Investigating angles • Assessment and Enrichment	• Calculating FDP • Calculating Space • Checking approximating and estimating	• Mathematical Movement • Presentation of data • Assessment and Enrichment • Going deeper/preventing the gap
Skills, Knowledge and Learning	Over the course of this half term, pupils will develop **fluency** with looking at using place value with numbers up to 1000. Pupils will be able to read Roman Numerals up to 100 and understand how the numeral system changed over time to include zero. Pupils will be comparing and ordering numbers beyond 100, developing their **mathematical reasoning skills**. Pupils will be able to count in various multiples and count backwards through zero and into negative numbers. Pupils will develop their **problem-solving skills**	This term pupils will be developing **mathematical reasoning and fluency** building on their knowledge of 2D shapes including classifying different quadrilaterals and triangles. Pupils will build on their addition and subtraction skills by being able to add and subtract 4-digit numbers, this will allow for pupils to further develop their **problem-solving** skills by applying their basic numeracy skills to multi step problems in context. Pupils be able to recall multiplication and division facts for up to the 12x timetables, further developing their **mathematical fluency**.	During this term, pupils will continue to develop their **fluency** with **multiplication problems**, focussing on multiplying 2- and 3-digit numbers using written methods before progressing to applying their skills to **problem solving** questions. Pupils will gain understanding of the difference between analogue and digit clock, further developing their **mathematical fluency and reasoning** with converting between units of measure including time and money. Pupils to gain understanding of division by factors of 10 and the effect it has on place, developing their	During this term, Pupils will be looking further at different units of measures further developing their **fluency and reasoning** skills. Pupils will be developing their **problem-solving** skills involving measure and money including fractions and decimals up to 2 decimal places. Pupils will also begin to look at types of angles and develop their understanding of the different types of angles and comparing them to right angles further developing their **reasoning skills**. This term also allows for pupil assessments and	This term allows pupils to further increased their knowledge of Fractions, with introducing them to calculations with same denominator and recognising families of common fractions. They will also develop their **problem-solving** skills by applying these skills in context. Pupils will be focussing on finding the area and perimeter of rectilinear shapes in a visual manner, further developing their **mathematical reasoning skills**. Pupils will continue to develop their number **reasoning skills** by developing their rounding and estimation skills, further developing into	This final term allows pupils for develop their knowledge of co-ordinates in a positive quadrant as well as identify missing co-ordinates to complete basic polygons. Pupil will then progress to describing the movement between shapes using a co-ordinates grid further developing their **mathematical fluency and reasoning skills**. Pupils will develop their understanding for different types of data and different methods of displaying them an using them to compare results, developing their

Primary - Maths

Groveside School

	and **mathematical reasoning** with comparing numbers up to 2 decimal places.	Pupils should develop their knowledge of factors and place value.	**mathematical fluency** by understand basic equivalences between basic fractions and decimals. At the beginning of this term, pupil assessments will be completed, and enrichment tasks used to enhance the work cover so far in the term, allowing for development of **Mathematical reasoning and Fluency**.	enrichment tasks to enhance the work cover so far in the term, allowing for development of **Mathematical reasoning and Fluency**.	inverse operations. This will build into practical **problem-solving** questions involving large positive numbers.	**mathematical reasoning.** A final assessment will be carried out to see overall progress from the year, pupils can revisit areas required following their assessment to ensure solid understanding of topics covered and allow pupils to delve deeper into topics to deepen their understanding
NC/Qualification Objectives	• recognise the place value of each digit in a four-digit number (thousands, hundreds, tens, and ones) • read Roman numerals to 100 (I to C) and know that over time, the numeral system changed to include the concept of zero and place value • identify, represent and estimate numbers using different representations • order and compare numbers beyond 1000 • count in multiples of 6, 7, 9, 25 and 1000 • count backwards through zero to	• identify lines of symmetry in 2-D shapes presented in different orientations • complete a simple symmetric figure with respect to a specific line of symmetry • compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes • find 1000 more or less than a given number • add and subtract numbers with up to 4 digits using the formal written methods of columnar addition and subtraction where appropriate • solve addition and subtraction two-step problems in contexts, deciding which	• multiply two-digit and three-digit numbers by a one-digit number using formal written layout • solve problems involving multiplying and adding, including using the distributive law to multiply two-digit numbers by one digit, integer scaling problems and harder correspondence problems such as n objects are connected to m objects • read, write and convert time between analogue and digital 12- and 24-hour clocks • solve problems involving converting from hours to minutes; minutes to seconds; years to months; weeks to days	• convert between different units of measure [for example, kilometre to metre, hour to minute] • solve simple measure and money problems involving fractions and decimals to two decimal places. • identify acute and obtuse angles and compare and order angles up to two right angles by size	• add and subtract fractions with the same denominator • solve problems involving increasingly harder fractions to calculate quantities, and fractions to divide quantities, including non-unit fractions where the answer is a whole number • recognise and show, using diagrams, families of common equivalent fractions • measure and calculate the perimeter of a rectilinear figure (including squares) in centimetres and metres • find the area of rectilinear shapes by counting squares	• describe positions on a 2-D grid as coordinates in the first quadrant • plot specified points and draw sides to complete a given polygon • describe movements between positions as translations of a given unit to the left/right and up/down • interpret and present discrete and continuous data using appropriate graphical methods, including bar charts and time graphs • solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and other graphs

Primary - Maths

Groveside School

	include negative numbers • compare numbers with the same number of decimal places up to two decimal places	operations and methods to use and why • recall multiplication and division facts for multiplication tables up to 12 × 12 • recognise and use factor pairs and commutativity in mental calculations • use place value, known and derived facts to multiply and divide mentally, including multiplying by 0 and 1; dividing by 1; multiplying together three numbers	• estimate, compare and calculate different measures, including money in pounds and pence. • count up and down in hundredths; recognise that hundredths arise when dividing an object by one hundred and dividing tenths by ten • find the effect of dividing a one- or two-digit number by 10 and 100, identifying the value of the digits in the answer as ones, tenths and hundredths • recognise and write decimal equivalents of any number of tenths or hundredths • recognise and write decimal equivalents to $^1/_4$, $^1/_2$, $^3/_4$		• round any number to the nearest 10, 100 or 1000 • round decimals with one decimal place to the nearest whole number • estimate and use inverse operations to check answers to a calculation • solve number and practical problems that involve all the above and with increasingly large positive numbers	
Enrichment/ Experiences	- Shopping Trip – estimation, using money, adding costs of items - Marwell Zoo – Data collection - Wellington Country Park– Estimating and measuring distances - Basingstoke– calculating time of journey, timings of day out, cost of visits etc					
Curriculum End Point / Goal	The principal focus of mathematics teaching year 4 is to ensure that pupils become increasingly fluent with whole numbers and the four operations, including number facts and the concept of place value. This should ensure that pupils develop efficient written and mental methods and perform calculations accurately with increasingly large whole numbers. At this stage, pupils should develop their ability to solve a range of problems, including with simple fractions and decimal place value. Teaching should also ensure that pupils draw with increasing accuracy and develop mathematical reasoning so they can analyse shapes and their properties, and confidently describe the relationships between them. It should ensure that they can use measuring instruments with accuracy and make connections between measure and number. By the end of year 4, pupils should have memorised their multiplication tables up to and including the 12-multiplication table and show precision and fluency in their work. Pupils should read and spell mathematical vocabulary correctly and confidently, using their growing word reading knowledge and their knowledge of spelling.					