

<u>Year 3 Objectives</u> Written methods for +, -, x, ÷ - To write and calculate mathematical statements for multiplication and division using the multiplication tables they know, including for two digit numbers and one-digit numbers, using mental and progressing to written methods. - To solve problems, including missing number problems, involving multiplication and division, including integer scaling problems and correspondence problems in which n objects are connected to m objects. - To add and subtract numbers with up to three digits, using the efficient written methods of columnar addition and subtraction. - To estimate the answer to a calculation and use inverse operations to check answers. - To solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction. <u>Measures</u> - To measure, compare, add and subtract: lengths (m/cm/mm); mass (g/kg); volume/capacity (l/ml) - To measure the perimeter of simple 2D shapes. - To add and subtract amounts of money to give change, using both £ and p in practical contexts. <u>Number and Place Value</u> - To count from 0 in multiples of 4, 8, 50 and 100; finding 10 or 100 more or less than a given number . - To recognise the place value of each digit in a three-digit number (hundreds, tens, ones). - To compare and order numbers up to 1000. - To identify, represent and estimate numbers using different	<u>Year 4 Objectives</u> Written methods for +, -, x, ÷ - To solve problems, involving multiplying and adding, including using the distributive law and harder multiplication problems such as which n objects are connected to m objects. - To multiply 2 and 3 digit numbers by a one digit number using a formal written layout. - To recognise and use factor pairs and commutativity in mental calculations. - To add and subtract numbers with up to four digits using the efficient written methods of columnar addition and subtraction where appropriate; add decimals to one decimal places. - To estimate and use inverse operations to check answers to a calculation. - To solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why. <u>Measures</u> - To convert between different units of measurement (km to m; hour to minute) - To measure and calculate the perimeter of rectilinear figure (including squares) in centimetres and metres. - To find the area of rectilinear shapes by counting. - Solve problems involving converting hours to minutes; minutes to seconds; years to months; weeks to days. - To estimate, compare and calculate different measures, including money in pounds and pence. <u>Number, Place Value and Rounding</u> - To count in multiplies of 6, 7, 9, 25 and 1000. - To find 1000 more or less than a given number .	<u>Literacy</u> <u>Narrative- Adventure and Mystery Stories</u> - Use the perfect form of verbs to mark relationships of time and cause. - Use connectives that signal time, shift attention, inject suspense and shift the setting. - Organise paragraphs around a theme. - Use techniques used by authors to create characters and settings. - Sequence paragraphs - Write for a wide range of purposes using the main features identified in reading. - Compose and rehearse sentences orally. - Plan, write, edit and improve. - Use a mixture of simple, compound and complex sentences. - Write sentences that include conjunctions, adverbs, direct speech, clauses and adverbial phrases - Read aloud writing to a group or whole class, using appropriate intonation. - Join letters, deciding which letters are best left un-joined. - Make handwriting legible by ensuring down strokes of letters are parallel and letters are spaced appropriately. - Spell correctly often misspelt words - Create characters, settings and plots. - Use alliteration effectively. - Use similes effectively. - Use a range of descriptive phrases including some collective nouns. <u>Poems to Perform</u> - Use alliteration effectively. - Use similes effectively. - Use a range of descriptive phrases including some collective nouns. - Write for a wide range of purposes using the main features identified in reading. - Discuss words and phrases that capture the imagination. - Prepare poems and plays to read aloud with expression, volume, tone and intonation. - Recognise some different forms of poetry. - Identify how language, structure and	<u>Science</u> This term, the children will complete two science topics. <u>Electricity</u> <i>How could we cope without electricity for one day?</i> The children will be learning about electricity. - Investigate circuits and their different components. - Investigate the differences between mains and battery-powered circuits - Identify whether or not a lamp will light in a simple series circuit, based on whether or not the lamp is part of a complete loop with a battery - Recognise some common conductors and insulators, and associate metals with being good conductors - Investigate the purposes of conducting and insulating materials - Recognise that a switch opens and closes a circuit and associate this with whether or not a lamp lights in a simple series circuit - Plan and carry out an experiment to see how the brightness of a bulb can be changed <u>Sound</u> <i>Why is the sound that Little Mix Make be enjoyed by so many?</i> The children will also learn about sound. - Identify how sounds are made, associating some of them with something vibrating - Investigate whether sounds can travel through different
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representations. - To read and write numbers up to 1000 in numerals and in words. - To solve number problems and practical problems involving these ideas. <u>Fractions</u> - To recognise and use fractions as numbers: unit fractions and non-unit fractions with small denominators. - To compare and order unit fractions, and fractions with the same denominators. - To add and subtract fractions with the same denominator within one whole ($5/7 + 1/7 = 6/7$). - To count up and down in tenths; recognise that tenths arise from dividing an object into 10 equal parts and in dividing one-digit numbers or quantities by 10. - To recognise and show, using diagrams, equivalent fractions with small denominators. - To solve problems that involve all of the above. <u>Statistics</u> - To interpret and present data using bar charts, pictograms and tables. - To solve one step and two step problems such as 'How many more?' and 'How many fewer?' using information presented in scaled bar charts, pictograms and tables. <u>Reading and writing time</u> - To tell and write the time from an analogue clock, including using Roman Numerals from 1 to X11, and 12 hour and 24 hour clocks. - To estimate and read time with increasing accuracy to the nearest minute; record and compare time in terms of seconds, minutes, hours and o'clock; use vocabulary such as am/pm, morning, afternoon, noon	- To recognise the place value of each digit in a four-digit number (thousands, hundreds, tens, and ones). - To order and compare numbers beyond 1000. - To count backwards through 0 to include negative numbers. - To identify, represent and estimate numbers using different representations. - To round any number to the nearest 10, 100 or 1000. - To solve number and practical problems that involve all of the above and with increasingly large positive numbers. - To read Roman numerals to 100 (I to C) and understand how, over time, the numeral system changed to include the concept of zero and place value. <u>Fractions</u> - Count up and down in hundredths; recognise that hundredths arise when dividing an object by a hundred and dividing tenths by ten. - 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. - To recognise and write decimal equivalents of any number of tenths or hundredths. - To recognise and write decimal equivalents to $1/4$; $1/2$; $3/4$. - To 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 units, tenths and hundredths.	presentation contribute to meaning. - Ask questions to improve understanding of a text. <u>Information Text: Non-chronological Report</u> - Recall and summarise main ideas. - Retrieve and record information from non-fiction, using titles, headings, sub-headings and indexes. - Identify main ideas drawn from more than one paragraph and summarise these. - Use the main features of a type of writing. - Compose and rehearse sentences orally. - Plan, write, edit and improve. - Organise paragraphs around a theme. - Use a mixture of simple, compound and complex sentences. - Extend the range of sentences with more than one clause by using a range of conjunctions, e.g. when, if, because, although. - Use fronted adverbials - Use commas after fronted adverbials. - Join letters, deciding which letters are best left unjoined. - Make handwriting legible by ensuring down strokes of letters are parallel and letters are spaced appropriately. - Spell correctly often misspelt words	materials - Recognise that vibrations from sounds travel through a medium to the ear - Find patterns between the pitch of a sound and features of the object that produced it - Find patterns between the volume of a sound and the strength of the vibrations that produced it - Find out how the length, thickness and tightness of a string affects its pitch. The children might work scientifically by: - Ask relevant questions - Report on findings from enquiries - Set up simple practical enquiries, comparative and fair tests - Record findings using simple scientific language, drawings and labelled diagrams - Report on findings - Present data in a variety of ways to help in answering questions - Make accurate measurements using a range of equipment, for example data loggers - Use results to draw simple conclusions and suggest improvements and predictions for setting up further tests
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and midnight. • To know the number of seconds in a minute and the number of days in each month, year and leap year. • To compare the duration of events, for example to calculate the time taken by particular events or tasks. <u>Geometry</u> • To draw 2D shapes and make 3D shapes using modelling materials; recognise 3D shapes in different orientations and describe them with increasing accuracy. • To recognise angles as a property of a shape and associate angles with turning. • To identify right angles, recognise that two right angles make a half-turn, three make three quarters of a turn and four a complete turn; identify whether angles are greater than or less than a right angle. • To identify horizontal, vertical, perpendicular and parallel lines in relation to other lines.	• To round decimals with one decimal place to the nearest whole number . • To compare numbers with the same number of decimal places up to two decimal places. • To solve simple measure and money problems involving fractions and decimals to two decimal places. <u>Statistics</u> • To interpret and present data using bar charts and continuous data using time graphs. • To solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and simple line graphs. <u>Reading and writing time</u> • To read, write and convert time between analogue and digital 12 hour and 24 hour clocks. • To solve problems converting from hours to minutes; minutes to seconds; years to months; weeks to days. <u>Geometry</u> • To compare and classify geometric shapes, including quadrilaterals and triangles (different types), based on their own properties and sizes. • To identify acute and obtuse angles and compare and order angles up to two right angles by size. • Identify lines of symmetry in 2D shapes presented in different orientations. • To complete a symmetric figure with respect to a specific line of symmetry. • To plot specified points and draw sides to complete a given polygon. • To describe positions on a 2D grid as co-ordinates in the first quadrant. • To describe movements between positions as translations of a given unit to the left/right, up/down.	<u>Dialogues and Plays</u> Use the perfect form of verbs to mark relationships of time and cause. • Use connectives that signal time, shift attention, inject suspense and shift the setting. • Write for a wide range of purposes using the main features identified in reading. • Compose and rehearse sentences orally. • Plan, write, edit and improve. • Use a mixture of simple, compound and complex sentences. • Write sentences that include conjunctions, adverbs, direct speech, clauses and adverbial phrases • Read aloud writing to a group or whole class, using appropriate intonation. • Join letters, deciding which letters are best left un-joined. • Make handwriting legible by ensuring down strokes of letters are parallel and letters are spaced appropriately. • Spell correctly often misspelt words • Create characters, settings and plots. • Use alliteration effectively. • Use similes effectively. • Use a range of descriptive phrases including some collective nouns.	
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