George Eliot Primary School

Mathematics Half Termly Overview
Year 3

Mental Maths/Arithmetic (throughout the year):
- count from 0 in multiples of 4, 8, 50 and 100; find 10 or 100 more or less than a given number - recognise the place value of each digit in a three-digit number (hundreds, tens, ones) - compare and order numbers up to 1000 - read and write numbers up to 1000 in numerals and in words - add and subtract numbers mentally, including: a three-digit number and ones; a three-digit number and tens; a three-digit number and hundreds - **recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables** - write and calculate mathematical statements for multiplication and division using all the multiplication tables that they know, including for two-digit numbers times one-digit numbers - 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 - add and subtract amounts of money to give change, using both £ and p in practical contexts
Problem Solving
Problem solving should be integrated throughout all maths learning as well as lessons where the main focus in on a problem solving objective. **Method of Solving Problem** To find examples to match a statement about numbers or shape e.g. All numbers in the 4 times tables end in an even number To use trial and improvement to solve a problem (when the method is modelled) **Ways of Recording** Record ideas in a list (when modelled) Record ideas in a pre-drawn table **Speaking and Listening** To be able to agree or disagree with someone else's idea using 'I agree because…' or 'I disagree because…'

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Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Number and place value (~ 3 weeks) *recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables* *count from 0 in multiples of 4, 8, 50 and 100 (Pupils now use multiples of 2, 3, 4, 5, 8, 10, 50 and 100)* *find 10 or 100 more or less than a given number* *recognise the place value of each digit in a three-digit number (hundreds, tens, ones)* *compare and order numbers up to 1000* *identify, represent and estimate numbers using different representations* *read and write numbers up to 1000 in numerals and in words* *solve number problems and practical problems involving these ideas. (Using a variety of representations,* ***including those related to measure****, pupils continue to count in ones, tens and hundreds, so that they become fluent in the order and place value of numbers to 1000.)*	**Time and measure (~3 weeks)** *tell and write the time from an analogue clock – 12 hour* *estimate and read time with increasing accuracy to the nearest minute; record and compare time in terms of seconds, minutes and hours;* *use vocabulary such as o'clock, a.m./p.m, morning, afternoon, noon and midnight* *know the number of seconds in a minute and the number of days in each month, year and leap year* *compare durations of events [for example to calculate the time taken by particular events or tasks]* **Geometry and data (~3 weeks)** *draw 2-D shapes and make 3-D shapes using modelling materials* *recognise 3-D shapes in different orientations and describe them* *recognise angles as a property of shape or a description of a turn* *identify right angles,*	**Multiplication, division and fractions (~3 weeks)** Text: Anno's Mysterious Multiplying Jar *recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables* *Pupils develop efficient mental methods, for example, using commutativity and associativity (for example, 4 × 12 × 5 = 4 × 5 × 12 = 20 × 12 = 240) and multiplication and division facts (for example, using 3 × 2 = 6, 6 ÷ 3 = 2 and 2 = 6 ÷ 3) to derive related facts (for example, 30 × 2 = 60, 60 ÷ 3 = 20 and 20 = 60 ÷ 3).* *write and calculate mathematical statements for multiplication and division using the multiplication tables that they know, including for two-digit numbers times one digit numbers, using mental and progressing to formal written methods recognise* *find and write fractions of a discrete set of objects: unit fractions and non-unit fractions with small denominators* *recognise and use*	**Number and place value (including decimals) (~ 3 weeks)** recognise the place value of each digit in a three-digit number (hundreds, tens, ones) (Giant's Palace lesson – speak to Megan) *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* *Divide a whole number by 10, using knowledge of place value add and subtract amounts of money to give change, using both £ and p in practical contexts* *measure, compare, add and subtract: lengths (m/cm/mm); mass (kg/g); volume/capacity (l/ml) (linking these to place value/ counting in tenths)* **Calculation (~ 3 weeks)** Revisit objectives from Autumn 1 as necessary *Solve positive integer scaling problems and correspondence problems in which n objects are connected to m objects* *(for example, 3 hats and*	**Geometry and data (~3 weeks)** *interpret and present data using bar charts, pictograms and tables* (link to Science Plants as well as discrete teaching) solve one-step and two-step questions [for example, 'How many more?' and 'How many fewer?'] using information presented in scaled bar charts and pictograms and tables. Revisit shape objectives from Autumn as necessary plus: *identify horizontal and vertical lines and pairs of perpendicular and parallel lines.* **Fractions and measure (~3 weeks)** Revisit Objectives from Spring 1 as necessary *add and subtract fractions with the same denominator within one whole [for example, 1/7 + 5/7 = 6/7* *compare and order unit fractions, and fractions with the same denominators* Solve problems involving all Y3 fractions objectives Make links between	**Time and fractions (~ 3 weeks)** *tell and write the time from an analogue clock – 12 hour, 24 hour and Roman numerals* *estimate and read time with increasing accuracy to the nearest minute;* *record and compare time in terms of seconds, minutes and hours;* *use vocabulary such as o'clock, a.m./p.m., morning, afternoon, noon and midnight* My Money Week - June

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Introduce Roman numerals (1-20) **Calculation (~3 weeks)** *add and subtract numbers mentally, including: a three-digit number and ones; a three-digit number and tens; a three-digit number and hundreds; add and subtract numbers with up to three digits, using formal written methods of columnar addition and subtraction* *estimate the answer to a calculation and use inverse operations to check answers* *solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction.* *write and calculate mathematical statements for multiplication and division using the multiplication tables that they know, including for two-digit numbers times one digit numbers, using mental and progressing to formal written methods solve problems, including missing number problems, involving multiplication and division*	*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* *interpret and present data using bar charts, pictograms and tables* *solve one-step and two-step questions [for example, 'How many more?' and 'How many fewer?'] using information presented in scaled bar charts and pictograms and tables.*	*fractions as numbers recognise and show using diagrams equivalent fractions* **Measure and calculation problems (~3 weeks)** *measure, compare, add and subtract: lengths (m/cm/mm); mass (kg/g); volume/capacity (l/ml)* *measure the perimeter of simple 2D shapes* *add and subtract numbers with up to three digits, using formal written methods of columnar addition and subtraction* *solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction.*	*4 coats, how many different outfits?; 12 sweets shared equally between 4 children; 4 cakes shared equally between 8 children)*	fractions and measurement e.g. half a metre, ½ of a metre	