Ilketshall St Lawrence Primary School

Barn Owls – What to expect

In Maths Lessons….

The following content will be introduced during Year Three and Four.

Counting and number

Year 3

- Count on 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 3 digit number
- Compare and order numbers to 1000
- Identify, represent and estimate numbers using different representations
- Read and write numbers to 1000 in numerals and words

Year 4

- Count in multiples of 6, 7, 9, 25 and 1000
- Find 1000 more or less than a given number
- Count backwards through 0 to include negative numbers
- Recognise the place value of each digit in a 4 digit number
- Order and compare numbers beyond 1000
- Round any number to the nearest 10, 100 or 1000.
- Identify, represent and estimate numbers using different representations
- Read Roman numerals to 100 (I to C) and know that over time, the numeral system changed to include 0 and place value.

Calculating

Year 3

- Add and subtract mentally, including HTU+U, HTU+T, HTU+H
- Add and subtract numbers with up to 3 digits using formak written methods od column 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
- Recall and use multiplication facts for the 3, 4 and 8 multiplication tables.
- Write and calculate mathematical statements for multiplication and division using the multiplication tables that they know, including 2 digit times 1 digit, using mental methods.
- Progress to formal written method calculations as above
- Solve problems, including missing number problems, involving multiplication and division, including positive integer scaling problems and correspondence problems in which n objects are connected to m objects.

Year 4

- Add and subtract numbers with up to 4 digits using the formal written methods of column addition and subtraction where appropriate
- Estimate and use inverse operations to check answers to a calculation
- Solve addition and subtraction two step problems in contexts, deciding on which operations and methods to sue and why.
- Recall multiplication and division facts for the multiplication times tables up to 12x12
- Use place value, known and derived facts to multiply and divide mentally, including: multiplying by 0 and 1, dividing by 1, multiplying together 3 numbers.
- Recognise and use factor pairs and commutativity in mental calculations.
- Multiply 2 and 3 digit numbers by 1 digit numbers using formal written layout
- Solve problems including using distributive law to multiply 2 digit numbers by 1 digit numbers, integer scaling problems and harder correspondence problems such as n objects are connected to m objects.

<u>Fractions</u>

Year 3

- Count up and down in tenths
- Recognise that tenths arise from dividing an object into 10 equal parts and in dividing 1 digit numbers or quantities by 10.
- Compare and order unit fractions and fractions with the same denominator.
- Recognise and show, using diagrams, equivalent fractions with small denominators
- Recognise, find and write fractions of a discrete set of objects; unit fractions and non-unit fractions with small denominators.
- Recognise and use fractions as numbers; unit fractions and non-unit fractions with small denominators.
- Add and subtract fractions with the same denominator within one whole (5/7+1/7=6/7)
- Solve problems using all fraction knowledge

Year 4

- Count up and down in 100ths
- Recognise that 100ths arise when dividing an object by 100 and dividing 10ths by 10.
- Recognise and show using diagrams, families of common equivalent fractions
- Solve problems using increasingly harder fractions to calculate quantities and fractions to divide quantities, including non-unit fractions where the answer is a whole number
- Add and subtract fractions with the same denominator
- Recognise and write decimal equivalents to ¼, ½, and ¾.
- Find the effect of dividing 1 or 2 digit numbers by 10 or 100, identifying the value of the digits in the answers as 1s, 10ths, and 100ths.
- Round decimals with one decimal place to the nearest whole number

- Compare numbers with the same number of decimal places up to 2 decimal places.
- Solve simple measure and money problems involving fractions and decima;s to 2 decimal places.

Measure and shape

Year 3

- 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 amounts of money to give change using both £ and p in practical contexts.
- Tell and write the time from an analogue clock including using Roman Numerals from I to XII and 12 and 24 hour clocks.
- 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 ad o'clock, a.m/p.m morning, afternoon, noon and midnight
- Know the seconds in a minute and the number of days in each month, year, and leap year.
- Compare duration of events
- Identify horizontal and vertical lines and pairs of parallel and perpendicular lines
- Draw 2D shapes
- Make 3D shapes using modelling materials
- Recognise 3D shapes in different orientations and describe them
- Recognise angles as property of a shape or a description of a turn
- Identify right angles, recognising that two right angles make a ½ turn, three make ¾ turn and four a whole turn.
- Identify whether angles are more or less than a right angle.

Year 4

- Convert between different units of measure
- Estimate, compare and calculate different measures, including money in pounds and pence
- Measure and calculate the perimeter of a rectilinear figure in cm and m.
- Find the area of rectilinear shapes by counting squares
- 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, year to months, weeks to days.
- Compare and classify geometric shapes, including quadrilaterals and triangles based on properties and sizes.
- Identify lines of symmetry in 2D shapes presented in different orientations
- Complete a simple symmetrical figure with respect to a line of symmetry
- Identify acute and obtuse angles and compare and order angles up to right angles by size

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<u>Position and direction/statistics</u>

Year 3

- Interpret and present data using bar charts, pictograms and tables
- Solve one step and two step questions, e.g 'How many more?' And 'How many fewer?' using information presented in scaled bar charts, pictograms and tables

Year 4

- Describe positions on a 2D grid as co-ordinates in the first quadrant.
- Describe movements between positions as translations of a given unit to the left/right and up/down.
- Plot specified points and draw sides to complete a given polygon
- 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.