



# Langley Mill C of E (Controlled) Infant School and Nursery

## Mathematics – End of Year 1 Objectives



### **Numbers and Place Value:**

- I can count to 100 forwards and backwards.
- I can count from 0 or 1 or from any given number.
- I can count, read and write numbers to 100 in numerals.
- I can count in multiples of 2, 5 and 10.
- I can identify one more and one less than a given number.
- I can identify and represent numbers using objects & pictures including the number line.
- I can use number vocabulary such as equal to, more than, less than (fewer), most, least.
- I can read and write numbers from 1 to 20 in numerals and words.

### **Addition and subtraction:**

- I can read, write & interpret mathematical statements involving addition (+), subtraction (-) and equals (=) signs.
- I can solve problems involving addition, subtraction and equals using practical equipment to help me.
- I know and can use my number bonds and related subtraction facts within 20.
- I can add and subtract one-digit and two-digit numbers to 20, including 0.
- I can solve missing number problems such as  $7 = [ ] - 9$ .

### **Multiplication and Division:**

- I can solve one-step problems involving multiplication and division using objects, pictures and arrays, with the support of the teacher.

### **Fractions:**

- I can recognise, find and name a half as one of two equal parts of an object, shape or quantity.
- I can recognise, find and name a quarter as one of four equal parts of an object, shape or quantity.

### **Measures:**

- I can compare, describe and solve problems for lengths and heights using words such as long, short, longer, shorter, tall, taller, short, shorter, double, half.
- I can compare, describe and solve problems for mass or weight using words such as heavy, light, heavier than, lighter than.
- I can compare, describe and solve problems for capacity/volume using words such as full, empty, more than, less than, half, half full, quarter.
- I can measure and begin to record the length, height, mass/weight and capacity.

### **Time:**

- I can compare, describe and solve problems for time using words such as quicker, slower, earlier, later.
- I can tell the time to the hour.
- I can tell the time to half past the hour.
- I can draw hands on a clock face to show o'clock and half past times.
- I can measure and begin to record time.
- I can sequence events in chronological order using words such as before and after, next, first, today, yesterday, tomorrow, morning, afternoon and evening.
- I can use language relating to dates.
- I can say the days of the week.
- I can say the months of the year.

### **Money:**

- I can recognise and know the value of UK coins and notes.
- I can order coins from smallest to largest value.
- I can solve simple addition and subtraction problems involving money.

### **Shape:**

- I can recognise and name common 2-D shapes including e.g. rectangles, squares, circles and triangles.
- I can recognise and name common 3-D shapes e.g. cuboids, pyramids and spheres.

### **Position and direction:**

- I can describe position, direction and movement, including whole, half, quarter and three-quarter turns.



# Langley Mill C of E (Controlled) Infant School and Nursery

## Mathematics – End of Year 2 Objectives



### Numbers and Place Value:

- I can count in steps of 2, 3, and 5 from 0.
- I can count in 10s from any number forwards and backwards.
- I can recognise the place value of each digit in a two-digit number (tens, ones).
- I can identify and represent numbers in different ways.
- I can estimate a number based on its position e.g. an arrow on a 0 to 10 number line.
- I can read and write numbers to at least 100 in numerals and words.
- I can compare and order numbers from 0 up to 100.
- I can round any two-digit number to the nearest 10.
- I can use the less than, more than and equals symbols in number sentences (<, > and =).
- I can use place value and number facts to solve problems.

### Addition and subtraction:

- I can add and subtract numbers using practical equipment to help me and mentally:
  - $TU + U$
  - $TU + \text{multiple of } 10$
  - $TU + TU$
  - $U + U + U$
- I can solve problems with addition and subtraction:
  - using practical equipment to help me.
  - with numbers, quantities and measures.
  - by using increasing mental calculation strategies and written methods.
- I can recall and use addition and subtraction facts to 20 fluently, and derive and use related facts up to 100.
- I can show that addition can be done in any order (commutative).
- I can show that subtraction cannot be done in any order.
- I can recognise and use the inverse relationship between addition and subtraction.
- I can use and apply the inverse to check calculations.
- I can use and apply the inverse to solve missing number problems.

### Multiplication and Division:

- I can recall and use multiplication facts for 2, 5 and 10 times tables.
- I can recall and use division facts for the 2, 5 and 10 times tables.
- I can recognise odd and even numbers.
- I can use the multiplication, division and equals symbols to calculate mathematical problems ( $\times$ ,  $\div$  and  $=$ ).
- I can show that multiplication of two numbers can be done in any order (commutative).
- I can show that division of one number by another cannot be done in any order.
- I can solve problems involving multiplication and division within a variety of contexts using:
  - practical equipment.
  - Arrays.
  - repeated addition.
  - mental methods.
  - multiplication and division facts that I know.

### Fractions:

- I can recognise, name and write the fractions  $\frac{1}{3}$ ,  $\frac{1}{4}$ ,  $\frac{2}{4}$ , and  $\frac{3}{4}$ .
- I can find  $\frac{1}{3}$ ,  $\frac{1}{4}$ ,  $\frac{2}{4}$  and  $\frac{3}{4}$  of a length, shape, set of objects or quantity.
- I can write simple fractions, e.g.  $\frac{1}{2}$  of  $6 + 3$ .
- I can recognise simple equivalent fractions e.g.  $\frac{2}{4}$  or 6 is the same as half.

**Measures:**

- I can choose and use the standard units to estimate and measure:
  - length/height (m/cm).
  - mass (kg/g).
  - temperature ( $^{\circ}\text{C}$ ).
  - capacity (litres/ml).
- I can choose and use the appropriate equipment to measure:
  - length/height (rulers).
  - mass (scales).
  - temperature (thermometers).
  - capacity (measuring vessels).
- I know the relationship between units of measure for length, mass and capacity e.g.  $100\text{ cm} = 1\text{ m}$ ,  $1000\text{ g} = 1\text{ Kg}$ ,  $1000\text{ ml} = 1\text{ L}$ .
- I can use my knowledge of the relationship between units of measure to compare and order lengths, mass and capacity and record the results using  $>$ ,  $<$  and  $=$ .
- I can compare and describe mass or weight using words such as heavy, light, heavier than, lighter than.
- I can compare and describe capacity using words such as full, empty, more than, less than, quarter.
- I can measure and begin to record the length, height, mass and capacity.

**Time:**

- I can understand, compare and sequence intervals of time such as seconds, minutes, hours, days, weeks, months, years.
- I know the number of minutes in an hour and the number of hours in a day.
- I can tell and write quarter past and quarter to times.
- I can draw the quarter past and to times on a clock face.
- I can tell and write the time to 5 minutes.
- I can draw the time to 5 minutes on a clock face.

**Money:**

- I can recognise and use symbols for pounds (£) and pence (p).
- I can combine coins to make a given value.
- I can find different combinations of coins that equal the same amounts of money.
- I can solve addition and subtraction money problems in the same unit of money, including giving change.

**Shape:**

- I can identify and describe the properties of 2-D shapes including the number of sides.
- I can identify vertical lines of symmetry.
- I can identify and describe the properties of 3-D shapes including the number of edges, vertices and faces.
- I can identify 3-D shape faces and 2-D shapes e.g. a circle on a cylinder and a triangle on a pyramid.
- I can compare and sort common 2-D and 3-D shapes and everyday objects according to their properties.

**Position and direction:**

- I can order and arrange combinations of mathematical objects in patterns and sequences, including those in different orientations.
- I can use mathematical language to describe position.
- I can use mathematical vocabulary to describe direction and movement such as quarter, half and three-quarter turns, clockwise, anti-clockwise, straight, left and right.
- I can recognise quarter turns as right angles.

**Statistics:**

- I can interpret and construct:
  - pictograms.
  - tally charts.
  - block diagrams.
  - simple tables.
- I can ask and answer simple questions involving:
  - counting the number of objects in each category.
  - totaling given categories.
  - comparing given categories



# Langley Mill C of E (Controlled) Infant School and Nursery

## Mathematics End of **Reception** Objectives



### **ELG 11 Numbers**

- I can count reliably with numbers from 1-20.
- I can place the numbers 1-20 in the correct order.
- I can say which number is one more or one less than a given number (to 20).
- I can count on or back to find the answer, using quantities and objects.
- I can solve problems, including doubling, halving and sharing.
- Using objects to help, I can add 2 single-digit numbers and count on to find the answer
- Using objects to help, I can subtract 2 single-digit numbers and count back to find the answer.

### **ELG 12 Shape, space and measures**

- I can use everyday words to talk about capacity.
- I can use everyday words to talk about size.
- I can use everyday words to talk about weight.
- I can use everyday words to talk about distance.
- I can use everyday words to talk about time.
- I can use everyday words to talk about money.
- I can compare objects and quantities and use them to solve problems.
- I notice and describe everyday shapes and objects using mathematical words.
- I can use everyday words to talk about position.
- I can recognise, create and describe patterns.

