# St. Teresa's Catholic Primary School Maths Skills Progression Class 2

<table>
<tr><th>Term</th><th colspan="2">Maths Topics and Learning Objectives</th></tr>
<tr><td rowspan="2">Autumn</td><td><u>Number, Place Value and Rounding</u><br><u>Year 1</u><br><u>Number & Place Value (within 50)</u><br>• count to and across 100, forwards and backwards, beginning with 0 or 1, or from any given number count, read and write numbers to 100 in numerals; count in multiples of twos, fives and tens<br>• count, read and write numbers to 100 in numerals; count in multiples of twos, fives and tens<br>• given a number, identify one more and one less<br>• identify and represent numbers using objects and pictorial representations including the number line, and use the language of: equal to, more than, less than (fewer), most, least<br>• read and write numbers from 1 to 20 in numerals and words<br><br><u>Year 2</u><br><u>Number & Place Value (within 100)</u><br>• count in steps of 2, 3, and 5 from 0, and in tens from any number, forward and backward<br>• recognise the place value of each digit in a two-digit number (tens, ones)<br>• identify, represent and estimate numbers using different representations, including the number line<br>• compare and order numbers from 0 up to 100; use <, > and = signs<br>• read and write numbers to at least 100 in numerals and in words<br>• use place value and number facts to solve problems.</td><td><u>Calculations (addition and subtraction with a focus on FLUENCY)</u><br><u>Year 1</u><br><u>Addition and Subtraction (up to 20)</u><br>• read, write and interpret mathematical statements involving addition (+), subtraction (–) and equals (=) signs<br>• represent and use number bonds and related subtraction facts within 20<br>• add and subtract one-digit and two-digit numbers to 20, including zero<br>• Solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations<br>• Solve missing number problems such as 7 = – 9.<br><br><u>Year 2</u><br><u>Addition & Subtraction (up to 100)</u><br>• solve problems with addition and subtraction: using concrete objects and pictorial representations, including those involving numbers, quantities and measures<br>• applying increasing knowledge of mental and written methods<br>• recall and use addition and subtraction facts to 20 fluently, and derive and use related facts up to 100<br>• add and subtract numbers using concrete objects, pictorial representations, and mentally, including:<br>- a two-digit number and ones<br>- a two-digit number and tens<br>- two two-digit numbers<br>- adding three one-digit numbers<br>- two two-digit numbers with regrouping<br>• show that addition of two numbers can be done in any order (commutative) and subtraction of one number from another cannot.</td></tr>
<tr><td colspan="2"><u>Geometry – Properties of Shapes</u><br><u>Year 1</u><br><u>Properties of Shapes</u><br>• 2-D shapes [for example, rectangles (including squares), circles and triangles]<br>• 3-D shapes [for example, cuboids (including cubes), pyramids and spheres]<br><br><u>Year 2</u><br><u>Properties of shapes</u><br>• identify and describe the properties of 2-D shapes, including the number of sides and line symmetry in a vertical line<br>• identify and describe the properties of 3-D shapes, including the number of edges, vertices and faces<br>• identify 2-D shapes on the surface of 3-D shapes [for example, a circle on a cylinder and a triangle on a pyramid]</td></tr>
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**BASIC SKILLS** (Rehearsed orally, through practical activities and recorded in basic skills exercise books when appropriate):

- Subitise quantities up to 5.
- Verbally count to and across 20, starting at any number.
- Verbally count backwards from 20.
- Compare quantities up to 10 (recognise when one quantity is greater than, less than or the same as the other quantity).
- Read and write numbers from 1 – 10 in numerals.
- Read numbers up to 20.
- Recall doubles of numbers up to 5 + 5.
- Recall halves of numbers (up to half of 10).
- Recall and write number bonds to 5.

**Autumn Term 1 KIRFs:**

**Year 1: Number bonds to 10.**

**Year 2: Count in steps of 2 from a given number up to 100.**

**Autumn Term 2 KIRFs:**

**Year 1: Number bonds to 20.**

**Year 2: Count in steps of 5 (from a given multiple of 5) up to 100.**

**Spring**

## Fractions

**Year 1**

**Fractions**

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

**Year 2**

**Fractions**

- recognise, find, name and write fractions $\frac{1}{3}$, $\frac{1}{4}$, $\frac{2}{4}$ and $\frac{3}{4}$ of a length, shape, set of objects or quantity
- write simple fractions for example, $\frac{1}{2}$ of 6 = 3 and recognise the equivalence of $\frac{2}{4}$ and $\frac{1}{2}$.

## Calculations (addition and subtraction with a focus on REASONING AND PROBLEM SOLVING)

**Year 1**

**Addition & Subtraction (within 20)**

- read, write and interpret mathematical statements involving addition (+), subtraction (–) and equals (=) signs
- represent and use number bonds and related subtraction facts within 20
- add and subtract one-digit and two-digit numbers to 20, including zero
- Solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems such as 7 = – 9.

**Year 2**

**Addition & Subtraction (within 100)**

- solve problems with addition and subtraction: using concrete objects and pictorial representations, including those involving numbers, quantities and measures
- applying their increasing knowledge of mental and written methods
- recall and use addition and subtraction facts to 20 fluently, and derive and use related facts up to 100
- add and subtract numbers using concrete objects, pictorial representations, and mentally, including:
  - a two-digit number and ones
  - a two-digit number and tens
  - two two-digit numbers
  - adding three one-digit numbers
- show that addition of two numbers can be done in any order (commutative) and subtraction of one number from another cannot
- recognise and use the inverse relationship between addition and subtraction and use this to check calculations and solve missing number problems.

## Measurement: Money

**Year 1**

**Measurement: Money**

- recognise and know the value of different denominations of coins and notes

**Year 2**

**Measurement – Money**

- recognise and use symbols for pounds (£) and pence (p); combine amounts to make a particular value

## Calculations (multiplication and division with a focus on FLUENCY)

**Year 1**

**Multiplication and Division**

- Solve one-step problems involving multiplication and division, by calculating the answer using concrete objects, pictorial representations and arrays with the support of the teacher.

**Year 2**

**Multiplication & Division**

- recall and use multiplication and division facts for the 2, 5 and 10 multiplication tables, including recognising odd and even numbers
- calculate mathematical statements for multiplication and division within the multiplication tables and write them using the multiplication (×), division (÷) and equals (=) signs
- show that multiplication of two numbers can be done in any order (commutative) and division of one number by another cannot
- solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods, and multiplication and division facts, including problems in contexts.

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| | | • find different combinations of coins that equal the same amounts of money<br>• solve simple problems in a practical context involving addition and subtraction of money of the same unit, including giving change. | |

**Measurement: Length and height/time**

**Year 1**

**Measurement - Length and Height**

- Compare, describe and solve practical problems for:
- lengths and heights [for example, long/short, longer/shorter, tall/short, double/half]
- measure and begin to record the following: lengths and heights

**Year 1**

**Measurement Weight and Volume**

- mass/weight [for example, heavy/light, heavier than, lighter than]
- capacity and volume [for example, full/empty, more than, less than, half, half full, quarter]

**Year 2 Measurement - Reading Scales**

- read intervals on scales (such as rulers and weighing scales)

**Measurement – Length and Height**

- choose and use appropriate standard units to estimate and measure length/height in any direction (m/cm) to the nearest appropriate unit, using rulers, scales in 1s, 2s,5s and 10s

compare and order lengths, mass, volume/capacity and record the results using >, < and =

**Year 2 Measurement – Weight**

- choose and use appropriate standard units to estimate and measure length/height in any direction (m/cm); mass (kg/g); temperature (°C); capacity (litres/ml) to the nearest appropriate unit, using rulers, scales, thermometers and measuring vessels
- compare and order lengths, mass, volume/capacity and record the results using >, < and =

**BASIC SKILLS** (rehearsed orally, through practical activities and recorded in basic skills exercise books when appropriate):

- Verbally count to and across 50, starting at any number.
- Verbally count backwards from 50.
- Compare quantities up to 20 (recognise when one quantity is greater than, less than or the same as the other quantity).
- Read and write numbers from 1 – 20 in numerals correctly.
- Recall and write number bonds to 10.
- Recall 1 more and 1 less of numbers up to 20 (mentally)
- Add and subtract up to 10.

## Spring Term 1 KIRFs:

**Year 1: Know one more or one less of numbers up to 20.**

**Year 2: Recall doubles of even numbers up to 20.**

## Spring Term 2 KIRFs:

**Year 1: Know one more or one less of numbers up to 100.**

**Year 2: Recall halves of even numbers up to 20.**

**Summer**

## Measurement: Time

**Year 1**

**Measurement – Time**

- time [for example, quicker, slower, earlier, later]
- sequence events in chronological order using language [for example, before and after, next, first, today, yesterday, tomorrow, morning, afternoon and evening]
- recognise and use language relating to dates, including days of the week, weeks, months and years
- tell the time to the hour and half past the hour and draw the hands on a clock
- face to show these times

**Year 2**

**Measurement – Time**

- compare and sequence intervals of time
- tell and write the time to five minutes, including quarter past/to the hour and draw the hands on a clock face to show these times
- know the number of minutes in an hour and the number of hours in a day.

## Calculations (addition and subtraction focus on FLUENCY with moving towards REASONING and PROBLEM SOLVING as appropriate)

**Year 1**

**Addition and Subtraction (consolidate up to 50; move to up to 100)**

- read, write and interpret mathematical statements involving addition (+), subtraction (–) and equals (=) signs
- represent and use number bonds and related subtraction facts within 20
- add and subtract one-digit and two-digit numbers to 20, including zero
- Solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems such as 7 = – 9.

**Year 2**

**Addition & Subtraction (3-digit numbers)**

- solve problems with addition and subtraction:
- using concrete objects and pictorial representations, including those involving numbers, quantities and measures
- applying their increasing knowledge of mental and written methods
- recall and use addition and subtraction facts to 20 fluently, and derive and use related facts up to 100
- add and subtract numbers using concrete objects, pictorial representations, and mentally, including:
  - a two-digit number and ones
  - a two-digit number and tens
  - two two-digit numbers
  - adding three one-digit numbers
- show that addition of two numbers can be done in any order (commutative) and subtraction of one number from another cannot
- recognise and use the inverse relationship between addition and subtraction and use this to check calculations and solve missing number problems.

## Calculations (multiplication and division with a focus on REASONING AND PROBLEM SOLVING)

**Year 1**

**Multiplication and Division**

- Solve one-step problems involving multiplication and division, by calculating the answer using concrete objects, pictorial representations and arrays with the support of the teacher.

**Year 2**

**Multiplication & Division**

- recall and use multiplication and division facts for the 2, 5 and 10 multiplication tables, including recognising odd and even numbers
- calculate mathematical statements for multiplication and division within the multiplication tables and write them using the multiplication (×), division (÷) and equals (=) signs
- show that multiplication of two numbers can be done in any order (commutative) and division of one number by another cannot
- solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods, and multiplication and division facts, including problems in contexts.

## Geometry

**Year 1**

**Geometry- Position & Direction**

- Describe position, direction and movement, including whole, half, quarter
- and three-quarter turns.

**Year 2**

**Geometry – Position & Direction**

- order and arrange combinations of mathematical objects in patterns and sequences
- use mathematical vocabulary to describe position, direction and movement, including
- movement in a straight line and distinguishing between rotation as a turn and in terms
- of right angles for quarter, half and three-quarter turns (clockwise and anti-clockwise).

## Statistics

**Year 2**

**Statistics**

- interpret and construct simple pictograms, tally charts, block diagrams and simple tables
- ask and answer simple questions by counting the number of objects in each category and sorting the categories by quantity
- ask and answer questions about totalling and comparing categorical data.

**BASIC SKILLS** (rehearsed orally, through practical activities and recorded in basic skills exercise books when appropriate):

- Verbally count to and across to 100 starting at any number.
- Verbally count backwards from 100.
- Read and write numbers from 1 – 100 in numerals.
- Write the digits 0 – 9 with no reversals.
- Recall half of any number to 20.
- Name and order the days of the week
- Name and order the months of the year.
- Recognise odd and even numbers.
- Add and subtract up to 20.

**Summer Term 1 KIRFs:**

**Year 1: Count in steps of 2 to 24, and in steps of 5 to 60 from zero.**

**Year 2: Recall 2s and 5s multiplication and division facts.**

**Summer Term 2 KIRFs:**

**Year 1: Count in steps of 10 to 120 from zero.**

**Year 2: Recall 10s and 3s multiplication and division facts.**