# St Peter's Reception Maths Overview

## Daily Skills

Maths should not only be taught during specific maths sessions but wherever possible throughout the day through lots of the class routines and through lots of incidental learning. The following should be utilised to support maths teaching:

- Register routines e.g. days of the week song/talking about the day, counting how many children are here and representing on a tens frame
- General counting e.g. counting how many bananas there are in the fruit box
- Counting songs
- Use of ordinal numbers e.g. "Sam line up first, Lilly line up second…"
- Maths games such as counting games and dice games (board games)
- Noticing maths in the environment e.g. shapes, numerals
- Children should encounter opportunities for maths in every area of provision e.g. containers for filling and emptying in the water tray, balance scales in the role play, amounts and numerals for matching, shapes for creating pictures, tens frames and whiteboard pens etc
- Meaningful numerals around the room e.g. how many children can play in an area at once, numbered bikes to park, how many children are here today

## Key Language

**Cardinal** - The number that indicates how many there are in a set.

**Classification** – The identification of an object by specific attributes, such as colour, texture, shape or size.

**Conservation** (of number) – The recognition that the number stays the same if none have been added or taken away.

**Numeral** - The written symbol for a number; e.g. 3, 2, 1

**Ordinal** - A number denoting the position in a sequence e.g. 1st, 2nd, 3rd, etc or page 1, page 2, page 3…

**Partition** - Separate a set into two or more subsets e.g. Partition a set of socks into plain and patterned.

**Subitise** - Instantly recognise a small quantity, without having to count how many there are.

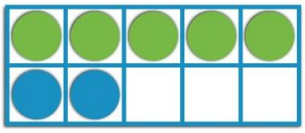
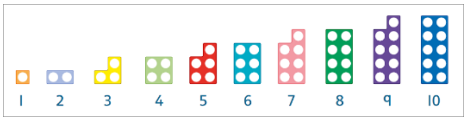
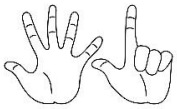
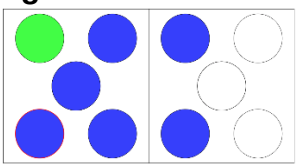
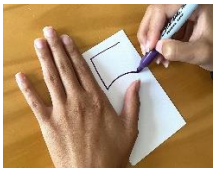
**Number** - Number can be:

- a count of a collection of items e.g. three boxes,
- a measure e.g. of length or weight, or
- a label e.g. the number 17 bus

**Quantity** - The amount you have of something e.g. a cup of flour, three boxes, half an hour.

# ST PETER'S CHURCH OF ENGLAND PRIMARY SCHOOL

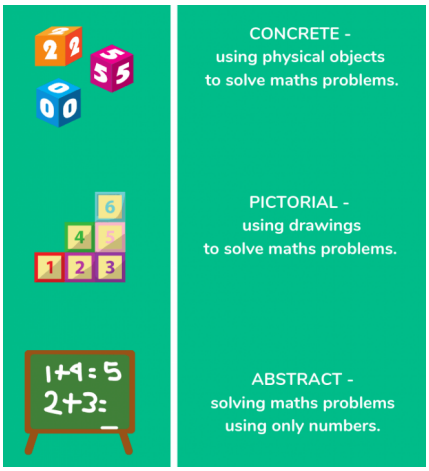
## Key Representations

| | | |
|---|---|---|
| **Tens frames**  | **Numicon**   | **Fingers**  |
| **Numerals**  | **Number line**   | **Objects**  |
| **Rekenrek**  | **Hungarian number frame**  | **Part-Whole Model**  |
| **Addition & subtraction symbols**  | **Writing numerals**  | **Drawing**  |

# ST PETER'S CHURCH OF ENGLAND PRIMARY SCHOOL

## Overview

Our Maths planning is based on NTECM's Mastering Number scheme of learning and is supported by White Rose Math's scheme of learning. We have at least one, often two, short taught maths sessions each day and we allow opportunity for mathematical concepts to be revised and developed across the year.




We believe that Maths should begin with the "concrete" and therefore, most of our work in reception will be practical.

We provide a variety of opportunities to develop the understanding of number, shape, space, measure and spatial thinking. We understand the importance of teaching children to apply their understanding to reason and problem solve and develop their ability to explain their thinking. We want children to leave us with a positive attitude to Maths, a secure understanding of numbers to ten and the ability to form numbers to ten correctly, ready to thrive in year one.

## Autumn Overview

Our children will build on previous experiences of number from their home and nursery experiences, and further develop their subitising and counting skills. They will learn to represent numbers to 5 in a variety of ways. They will explore the composition of numbers within 5. They will compare sets of objects and use the language of comparison.

Pupils will:

• identify when a set can be subitised and when counting is needed

• subitise different arrangements, both unstructured and structured, including using the Hungarian number frame

• make different arrangements of numbers within 5 and talk about what they can see, to develop their conceptual subitising skills

• spot smaller numbers 'hiding' inside larger numbers

• connect quantities and numbers to finger patterns and explore different ways of representing numbers on their fingers

• hear and join in with the counting sequence, and connect this to the ‘staircase’ pattern of the counting numbers, seeing that each number is made of one more than the previous number

• develop counting skills and knowledge, including: that the last number in the count tells us ‘how many’ (cardinality); to be accurate in counting, each thing must be counted once and once only and in any order; the need for 1:1 correspondence; understanding that anything can be counted, including actions and sounds

• compare sets of objects by matching

• begin to develop the language of ‘whole’ when talking about objects which have parts

• say what is one more and one less than a given number to 5.

In addition to this our children will also:

• compare size, mass & capacity

• explore pattern

• recognise, name and describe circles and triangles

• use and respond to positional language

• recognise, name and describe shapes with 4 sides (square and rectangle)

• begin talking time and sequencing some daily events

# Spring Overview

In the Spring terms our children will continue to develop their subitising and counting skills and explore the composition of numbers to 10. They will begin to identify when two sets are equal or unequal and connect two equal groups to doubles.

Pupils will:

• continue to develop their subitising skills for numbers within and beyond 5, and increasingly connect quantities to numerals

• begin to identify missing parts for numbers within 5

• explore the structure of the numbers 6 and 7 as ‘5 and a bit’ and connect this to finger patterns and the Hungarian number frame

• focus on equal and unequal groups when comparing numbers understand that two equal groups can be called a ‘double’ and connect this to finger patterns

• sort odd and even numbers according to their ‘shape’

• continue to develop their understanding of the counting sequence and link cardinality and ordinality through the ‘staircase’ pattern

• order numbers and play track games

• join in with verbal counts beyond 20, hearing the repeated pattern within the counting numbers

• represent numbers to 10 in a variety of ways

• combine two amounts

• comparing numbers to 10

In addition to this our children will also:

• revisit comparing mass, capacity, time and patterns

• compare and describe length and height

• recognise, name and describe basic 3D shapes

• explore spatial awareness

# Summer Overview

Pupils will consolidate their counting skills, counting to larger numbers and developing a wider range of counting strategies. They will secure knowledge of number facts through varied practice. They will look at numbers beyond 10.

Pupils will:

• continue to develop their counting skills, counting larger sets as well as counting actions and sounds

• explore a range of representations of numbers, including the 10-frame, and see how doubles can be arranged in a 10-frame

• compare quantities and numbers, including sets of objects which have different attributes

• continue to develop a sense of magnitude, e.g. knowing that 8 is quite a lot more than 2, but 4 is only a little bit more than 2

• begin to generalise about ‘one more than’ and ‘one less than’ numbers within 10

• continue to identify when sets can be subitised and when counting is necessary

• develop conceptual subitising skills including when using a Rekenrek

• learn bonds to 10

• build numbers beyond 10

- count patterns beyond 10
- practise practical addition and subtraction
- practise doubling, sharing and halving
- recap odd and even numbers

In addition to this our children will also:

- using 2D shapes they will match, rotate and manipulate, building on their spatial reasoning skills
- recap 3D shapes

**Each week is planned with the current cohort in mind. Where children need extra support we make time for one of the adults within our class to work with them 1-1, we want every child to "keep up" so they do not end up having to "catch up" and every child to leave us ready to thrive in Year 1.**