St. Andrew's Church of England Primary School – Reception Mathematics Overview



AUTUMN

Number & Numerical Patterns

Pupils will build on previous experiences of number from home and nursery environments, and further develop their develop their subitising and counting skills. They will explore the composition of numbers within 5. They will begin to compare sets of objects and use the language of comparison.

- 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

SPRING

Number & Numerical Patterns

Pupils will continue to develop their subitising and counting skills and explore the composition of numbers within and beyond 5. They will begin to identify when two sets are equal or unequal and connect two equal groups to doubles. They will begin to connect quantities to numerals.

- 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

SUMMER

Number & Numerical Patterns

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.

- Continue to develop their counting skills, counting larger sets as well as counting actions and sounds
- Explore a range of representations of number, 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

• Begin to develop the language of 'whole' when talking about objects which have parts

Shape, Space & Measures

Match, Sort & Compare (7 steps)

- Match objects
- Match pictures and objects
- Identify a set
- Sort objects to a type
- Explore sorting techniques
- Create sorting rules
- Compare amounts

Measure & Patterns (6 steps):

- Compare size
- Compare mass
- Compare capacity
- Explore simple patterns
- Copy and continue simple patterns
- Create simple patterns

Circles & Triangles (4 steps)

- Identify and name circles and triangles
- Compare circles and triangles
- Shapes in the environment
- Describe position

Shapes with 4 Sides +Day & Night:

- Identify and name shapes with 4 sides
- Combine shapes with 4 sides
- Shapes in the environment
- My day and night

Shape, Space & Measures

Mass & Capacity (4 steps):

- Compare mass
- Find a balance
- Explore capacity
- Compare capacity

Length, Height & Time (6 steps):

- Explore length
- Compare length
- Explore height
- Compare height
- Talk about time
- Order and sequence time

Shape, Space & Measures

Explore 3D Shapes (7 steps):

- Recognise and name 3-D shapes
- Find 2-D shapes within 3-D shapes
- Use 3-D shapes for tasks
- 3-D shapes in the environment
- Identify more complex patterns
- Copy and continue patterns
- Patterns in the environment

Manipulate, Compose &

Decompose (8 steps):

- Select shapes for a purpose
- Rotate shapes
- Manipulate shapes
- Explain shape arrangements
- Compose shapes
- Decompose shapes
- Copy 2-D shape pictures
- Find 2-D shapes within 3-D shapes

Visualise, build and map –

(parts of, if time):

 Recognise and create patterns, describe positions

NURE

Key Vocabulary

Number

more than, fewer, next, number, whole, parts

Numerical Patterns

one, two, three to ten, show me, fingers, numerals, how many, estimate, guess, count, subitise

Shape, Space and Measures

circle, square, shape, triangle, rectangle, cube, pyramid, sphere, cone, under, in, on, up, down, besides, between, in front of, behind, sides, corners, straight, flat, round, curved, bigger, smaller, measure, heavier, lighter, pattern, sort

Number number bonds, add, more, sum, total, subtract, take away, difference between, altogether, how many?, more than, less than, fewer, the same as, equal to, double, one to twenty (and beyond)

Numerical Patterns

zero, one, two to 10 and beyond, more, less, count, numeral, one more, one less, count, number line, sort, odd, even

Shape, Space and Measures

First, then, after, before, every day, morning, afternoon, evening, nighttime, earlier, later, too late, soon, in a minute, clock, yesterday, tomorrow, Monday, Tuesday, Wednesday, Thursday, Friday, Saturday, Sunday, circle, square, triangle, rectangle, pattern, repeating, mass, heavier, lighter, longer, length, height, shorter,

Number

number bonds, add, more, sum, total, subtract, take away, difference between, altogether, how many?, more than, less than, fewer, the same as, equal to, double, half, sharing

Numerical Patterns

zero, one, two to 20 and beyond, greater than, less than, equal to/the same as, teen, tens, ones, odd, even, double, half, equal

Shape, Space and Measures

circle, square, triangle, rectangle, cube, pyramid, sphere, cone, face, edge, vertex/vertices, corner, side, flat, curved, quick, slow, 2D, 3D, cube, pyramid, sphere, cone, rotate

