Abbey CofE Infant and Nursery School - Maths Long Term Plan

Shine Brightly

YEAR	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Squirrels Nursery 2 – 3 year olds	**Shape** **Spatial Awareness** Explores space when they are free to move, roll and stretch Explores space around them and engages with position and direction, such as pointing to where they would like to go Enjoys filling and emptying containers Investigates fitting themselves inside and moving through spaces Move their bodies and toys around objects and explore fitting into spaces **Shape** Beginning to put objects of similar shapes inside others and take them out again Stacks objects using flat surfaces Responds to changes of shape Attempts, sometimes successfully, to match shapes with spaces on inset puzzles Pushes objects through different shaped holes, and attempts to fit shapes into spaces on inset boards or puzzles Beginning to select a shape for a specific space Enjoys using blocks to create their own simple structures and arrangements		**Number** Reacts to changes of amount when those amounts are significant (more than double) May be aware of number names through their enjoyment of action rhymes and songs that relate to numbers **Shape** Pushes objects through different shaped holes, and attempts to fit shapes into spaces on inset boards or puzzles Chooses puzzle pieces and tries to fit them in **Measures** Shows an interest in size and weight Explores capacity by selecting, filling and emptying containers, e.g. fitting toys in a pram Explores differences in size, length, weight and capacity **Counting** Says some counting words May engage in counting-like behaviour, making sounds and pointing or saying some numbers in sequence Begins to say numbers in order, some of which are in the right order (ordinality) **Cardinality** Uses number words, like one or two and sometimes responds accurately when asked to give one or two things Beginning to notice numerals Beginning to count on their fingers		**Comparisons** Responds to words like lots or more Beginning to compare and recognise changes in numbers of things, using words like more, lots or 'same' **Pattern** Becoming familiar with patterns in daily routines Joins in with and predicts what comes next in a story or rhyme Beginning to arrange items in their own patterns, e.g. lining up toys Joins in and anticipates repeated sound and action patterns Is interested in what happens next using the pattern of everyday routines **Shape** Recognises that two objects have the same shape Makes simple constructions **Counting** Begins to say numbers in order, some of which are in the right order (ordinality) **Cardinality** Uses number words, like one or two and sometimes responds accurately when asked to give one or two things Beginning to notice numerals Beginning to count on their fingers	
Owls Nursery Pre-School 3 – 4 year olds	**Counting** Begins to say numbers in order, some of which are in the right order May enjoy counting as far as they can go Point or touches each item, saying one number for each item, using the stable order of 1,2,3,4,5 **Cardinality** Subitise one, two and three objects (without counting) **Composition** Through play & exploration, beginning to learn that numbers are made up of smaller numbers (focus on numbers 3 and 4) **Spatial Awareness** Responds to and uses language of position and direction **Shape** Enjoys portioning and combing shapes to make new shapes with 2d and 3D shapes Chooses items based on their shape which are appropriate for the child's purpose **Patterns** Explores and adds to simple linear patterns of two or three repeating items		**Counting** May enjoy counting as far as they can go Use some number names and umber language within play, and may show fascination with large numbers. Begin to recognise numerals 0-5 **Cardinality** Subitise one to five objects (without counting) Counts up to 5 items, recognising that the last number said represents the total counted so far Links numerals with amounts up to 5 **Composition** Through play & exploration, beginning to learn that numbers are made up of smaller numbers (focus on numbers up to 5) Separates a group of objects in different ways, beginning to recognise that the total is still the same **Comparisons** Compares two small groups of up to five objects, saying when there are the same number of objects in each group		**Cardinality** Counts up to 5 items, recognising that the last number said represents the total counted so far Links numerals with amounts up to 5 **Shape** Responds to both informal language and common shape names Shows awareness of shape similarities and differences between objects Enjoys partioning and combing shapes to make new shapes with 2d and 3D shapes Chooses items based on their shape which are appropriate for the child's purpose Attempts to create arches and enclosures when building **Spatial Awareness** Predicts, moves and rotates objects to fit the space or create the shape they would like Responds to and uses language of position and direction (under) **Counting**	

	Joins in with simple patterns predicting what comes next	Use words like 'more than', 'fewer than'. **Spatial Awareness** Responds to and uses language of position and direction (under, beside, between – link to traditional tales – eg. put the troll under the bridge.) **Measures** Explore differences in size, length In meaningful contexts, finds the longer or shorter or two items Recalls a sequence of events in everyday life and stories **Patterns** Create their own spatial patterns showing some organisation or regularity Explores and adds to simple linear patterns of two or three repeating items Joins in with simple patterns predicting what comes next	Enjoys reciting numbers from 0 – 10 Begin to recognise numerals 0-5 **Cardinality** Links numerals with amounts up to 5 Explores using a range of their own marks and signs to which they ascribe mathematical meanings **Composition** Beginning to use understanding of number to solve practical problems in play and meaningful activities Beginning to recognise that each counting number is one more than the one before **Measures** Explore differences in capacity In meaningful contexts, finds the more/less full of two items
Reception	**Counting & Number** 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 **Cardinality** 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' and 'parts' when talking about objects and numbers **Shape** Use gestures to develop their understanding and use of a range of spatial language, including the prepositions: in, on, under, next to, between, in front of, and behind, and language related to movement, including: turn, flip.	**Shape** Continue to notice similarities and differences Identify and describe some 2d and 3d shapes **Counting & Number** 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, initially with blocks and then when comparing numbers up to 10. 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' **Cardinality** 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.	**Pattern** Explore a range of pattern making skills, copying, continuing and creating their own patterns **Counting & Number** 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 **Measures** Compare lengths, heights and mass, noticing similarities and differences and using prepositional language to describe these **Counting & Number** 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.

Year 1	**Number: Place value (within 10/20)** Counting & representing numbers within 10 and then 20 1:1 correspondence Comparing sets of objects Counting forwards from any number Number sequences 1 more **Addition & Subtraction (to 10)** Number bonds- with number sentences Adding together single digit numbers using a bar model, part, part, whole- with number sentences Adding more- number line, counting on from the larger number, first, then, now	**Number: Place value (within 20)** The Number Line Counting backwards & 1 less More than, less than, equal to (language) **Adding & Subtraction** Subtract single digit numbers using bar model/part, part whole Subtract by counting back	**Number Place Value (to 50)** Counting from 20-50 Count by making groups of 10. Partitioning a number into tens and ones 1 more, 1 less The number line to 50	**Division** Make equal groups-grouping Make equal groups-sharing **Multiplication** Counting in 2s, 5s, and 10s. Counting groups of 2, 5, and 10. Repeated addition	Multiplication Make arrays Fractions Recognise and find half of an object, shape or quantity. Recognise and find a quarter of an object, shape or quantity Addition/Subtraction within 20 Numbers bond to 20. Addition/subtraction number facts. Add and subtract ½ digit numbers to 20 by counting on/back.	Addition/Subtraction within 20 Finding a missing part Shape 3D shape Number Place Value (to 100) Counting from 50-100. Partitioning 1 more/1 less The number line to 100 Time Sequence events in chronological order O'clock and half past Money Recognize and know the value of different denominations of coins and notes Measure: Length, Height and, Capacity. Measure weight & capacity. Compare length & height.
Year 2	**Number: Place Value** Count in steps of 2, 3, 5 and 10s forwards and backwards from any given number. Count in steps of 2, 3, 5 and 10s forwards and backwards from any given number. Recognise the place value of each digit in a two digit. Identify, represent and estimate numbers using different representations including a number line. Compare and order numbers from 0 up to 100 using < > = Read and write numbers to at least 100 in numerals and words. Use place value and number facts to solve problems.	**Addition & Subtraction** Recall and use addition and subtraction facts to 20 fluently and derive and use related facts up to 100. Add numbers using concrete objects, pictorial representations and mentally including: adding three-one digit numbers a two-digit number and ones. • a two-digit number and tens. adding two-two-digit numbers. Subtract numbers using concrete objects, pictorial representations and mentally including: • a two-digit number and ones two-digit numbers and tens subtract numbers using concrete objects, pictorial representations and mentally by: • subtracting two-two-digit numbers not crossing ten. • subtracting two-two-digit numbers crossing the ten.	**Multiplication/Division** Recall and use multiplication facts for 2, 5 and 10 times table. Recognise odd and even numbers. Include 3 times tables. Calculate mathematical statements for multiplication and write them using the multiplication sign (x). Recall and use division facts for the 2 and 10 times tables. Recall and use division facts for the 5 times tables. Recall and use division facts for the 2, 5 and 10 times tables.	**Fractions** Recognise, find and name and write fractions- 1/3 of length, shape and quantity. Recognise, find and name and write fractions- 1/4 of length, shape and quantity. Recognise, find and name and write fractions- 2/4 of length, shape and quantity. Equivalent fractions. Recognise, find and name and write fractions- 3/4 of length, shape and quantity. Write simple fractions number sentences. E.g. ½ of 6=	**Measurement** Choose and use appropriate standard of units to estimate and measure length, height, mass, temperature and capacity. **Geometry** Identify and describe the properties of 2D shapes, inc number of edges, vertices and faces. Identify and describe the properties of a 3D shapes, including number of sides and vertices and line of symmetry. Identify 2D shapes on the surfaces of a 3D shape. Compare and sort common 2D, 3D shapes and everyday objects Position and direction	**Time** Quarter past and quarter to. To know the number of minutes in an hour and number of hours in a day. 5 minute intervals- past and to the hour. **Money** Recognise and use symbols for pounds (£) and pence (p). Count amounts to make a particular value