Key Learning in Mathematics – Reception

Number – counting

Rote counting
- Rote count from 1
- Rote count on from a given number between 1 and 20
- Rote count back from 20 to 0
- Rote count back from a given number between 0 and 20
- Know what number comes before or after a given number
- Say a number between two given numbers
- Rote count beyond 20

Counting objects
- Understand that counting is to find out how many
- Use one to one correspondence when counting
- Understand the last number said is the number in the set
- Count up to 20 objects, pictures, sounds and actions
- Understand and use conservation of number
- Use the word 'zero' to represent 'none'
- Compare two sets of different objects saying which set is more, greater, fewer, less, same, equal
- Order three or more sets of objects
- State without counting (subitise) quantities within 5
- Make a sensible guess of quantities within 10

Number – calculating

- Understand the concept of addition by practically combining sets of objects to find how many and use the terminology part – part – whole
- Understand the concept of subtraction by practically removing one amount from within another to find how many are left and use the terminology part – part – whole
- Relate subtraction to addition in practical situations using the terminology part – part – whole
- Identify one more and one less than a given number
- Identify two more and two less than a given number
- Add two single-digit numbers totalling up to 10, using practical equipment
- Add two single-digit numbers totalling greater than 10, using practical equipment
- Subtract a single-digit number from a number up to 10, using practical equipment.
- Subtract a single-digit number from a number greater than 10, using practical equipment
- Automatically recall addition and subtraction facts up to 5 and some addition and subtraction facts to 10

Number – fractions

- Understand that sharing is splitting an amount into equal parts
- Understand that halving is sharing into two equal parts
- Understand that doubling is adding the same number to itself
- Automatically recall double facts to double 5

Number – number sense

- Partition a set of objects in different ways using the terminology part - part - whole
- Explore and represent the patterns in odd and even numbers
- Understand that 'teen' numbers are a group of 10 plus another number
- Understand 20 is the same as two groups of 10
- Recognise repeating patterns in the counting sequence i.e. 6, 7, 8, 9 and 16, 17, 18, 19 and 26, 27, 28, 29 etc.

Number – number recognition

- Recognise and identify numerals 0 to 20
- Select the numeral that represents a set of objects
- Order numerals 0 to 20

Number – graphics

- Represent amounts in their own ways, explaining what they mean
- Represent and explain their thinking in their own ways
- Write numerals 0 to 20

Shape

- Know that shapes can appear in different ways and be different sizes
- Build and make models with 3-D shapes
- Create and describe pictures using 2-D shapes
- Name common 2-D shapes (circle, triangle, square rectangle, oblong rectangle)
- Name common 3-D shapes (sphere, cube, cuboid)
- Talk about shapes using mathematical language (straight, curved, sides, flat, solid)
- Sort shapes according to their own criteria

Space

- Understand and use positional language in everyday situations
- Understand and use ordinal numbers when describing position
- Understand and use the language of movement/direction
- Describe and recognise patterns made of objects, numbers and shapes
- Create patterns made of objects, numbers and shapes

Statistics

- Sort objects and say what features they have in common

Measurement

Distance
- Understand that measures of distance can have different names including length, width, height
- Understand and use language to compare the length/width of two objects
- Understand and use language to compare the height of two objects
- Understand and use language of comparison when ordering three objects of different lengths/widths/heights
- Understand the concept of the conservation of length/width/height

Weight/mass
- Understand the measurement of weight/mass (heavy/light)
- Understand and use language to compare the weight/mass of two objects
- Understand the concept of conservation of weight/mass

Volume/capacity
- Understand the measurement of volume/capacity (empty/full/nearly)
- Understand and use language to compare two of the same container holding different amounts
- Understand and use the language of comparison when ordering three of the same container holding different amounts
- Understand the concept of the conservation of volume/capacity

Money
- Understand that we need to pay for goods
- Talk about things they want to spend their money on
- Talk about different ways we can pay for things
- Recognise that there are different coins
- Recognise 1p coin
- Use 1p coins to pay for objects

Time
- Talk about significant times of the day, e.g. home time, lunch time, snack time, bed time, etc.
- Understand and use language – before, after, yesterday, today, tomorrow
- Use the language of comparison when talking about time, e.g. longer/ shorter; faster/slower
- Sequence two or three familiar events and describe the sequence
- Know the names of the days of the week
- Say the names of the days of the week in order