Mathematics in Reception

Spring Term

Sequence of Learning

In line with the EYFS Statutory Framework 2021

Year R Mathematics Yearly Overview

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Week 1		Number 5	Counting and Comparing	Addition	Counting, Comparing and Ordering	Time
Week 2		Number 6	Partitioning and Understanding Part-Whole	Subtraction	Understanding Part – Whole with Addition and Subtraction	Space
Week 3	Number 1	Number 7	Understanding 'Teens' Numbers	Halving and Doubling	Fractions	Money and Sorting
Week 4	Number 2	Number 8	Distance (length, height, width)	Number Sense	Distance and Mass/Weight	Number Sense
Week 5	Number 3	Number 9	Mass/Weight and Capacity/Volume	Addition and Subtraction	Capacity/Volume and Money	Addition and Subtraction
Week 6	Number 4	Number 10	Shape and Sorting		Shape and Sorting	

Opportunities for Learning

The following tables detail a suggested sequence of learning for Spring 1 that correspond with the Learning and Progression Steps (LAPS) for EYFS.

However, some of the content within the LAPS is best learned through daily routines and regular exposure through quality interactions during continuous provision. This specific content is:

- Rote counting back from 20
- Counting sounds and actions and keeping track of the count

- Understand and use the terms second, third, fourth and fifth to describe position in a line
- In everyday situations, understand and use the terms forwards, backwards, up, down, turn

- Understand that money can be in the form of coins and notes
- Understand that money can be paid in other ways such as plastic card or using the internet
- Sort coins into sets, e.g. all 1p coins, all 2p coins etc.
- Identify the properties of a 1p coin, e.g. brown/copper, round, small
- Select the 1p coin(s) from a larger group of mixed coins

- Understand that we can compare the order of events using words such as ' before' and 'after'
- Use the word 'before', understanding that it refers to preceding a particular event or item
- Use the word 'after', understanding that it refers to following a particular event or item
- Use the word 'between', understanding that it refers to the middle or second of three events
- Use the word 'today', understanding that it refers to the current day
- Use the word 'yesterday', understanding that it refers to the day before today
- Use the word 'tomorrow', understanding that it refers to the day after today
- Name the days of the week (not necessarily in order)
- Join in with rote recital of the days of the week in order

Week 1 Big Idea – Counting and Comparing		
Lesson	**LAPS – Learning Objective**	**Related Learning**
1	**Recap** rote count to 10 forwards and back from 10 **Recap** recognise familiar arrangements for numbers up to 5 when on a dice or domino **Recap** state without counting quantities within 5 **Identify quantities of objects up to 5 when placed in a dice or domino arrangement**	
2	**Identify without counting whether a group has more / greater or fewer / less than 5 objects** show 5 and the other group - piles of vastly different amounts - structured arrangement of objects in two lines - structured arrangement using ten frames **Repeat for 6 objects**	When shown two groups within 10 (quick reveal), identify which is the best match for a given number Compare two sets of different objects saying which set is more, fewer, same, equal
3	**Identify without counting whether a group has more / greater or fewer / less than 7 objects** As above **Repeat for 8 objects**	When shown two groups within 10 (quick reveal), identify which is the best match for a given number Compare two sets of different objects saying which set is more, fewer, same, equal
4	**Identify without counting whether a group has more / greater or fewer / less than 9 objects** As above **Repeat for 10 objects and use some structured equipment**	When shown two groups within 10 (quick reveal), identify which is the best match for a given number Identify without counting whether a shown amount is closer to 5 or 10
5	**Compare three groups of the same object by matching objects together** Structured arrangement of objects in three lines **Compare three groups by counting the objects**	Use the word 'most' to indicate the greatest amount Use the word 'fewest' to indicate the least amount Understand that ordering can go from fewest to most or most to fewest
Week 2 Big Idea – Partitioning and Understanding Part–Whole		
Lesson	**LAPS – Learning Objective**	**Related Learning**
1	**Partition the whole set of objects between two groups** **Draw a picture/jotting to represent their mathematics, e.g.** OOOOO------OOO OO **Recall addition and subtraction facts up to 5 (from Autumn term)**	Understand and use conservation of number Use the word 'whole' to describe a set of objects Use the word 'part' to describe each partitioned set of objects Numbers up to 5
2	**Partition the whole set of objects between two groups** **5 objects - how many different ways can the whole be partitioned into two parts?** **Draw a picture/jotting to represent their mathematics**	Understand and use conservation of number Use the word 'whole' to describe a set of objects Use the word 'part' to describe each partitioned set of objects Write numerals 0-5 for a given purpose
3	**Partition the whole set of objects between two groups** **6 objects - how many different ways can the whole be partitioned into two parts?** **Draw a picture/jotting to represent their mathematics**	Understand and use conservation of number Use the word 'whole' to describe a set of objects Use the word 'part' to describe each partitioned set of objects Write numerals 6-9 for a given purpose
4	**Partition the whole set of objects between two groups** **7 and 8 objects - how many different ways can the whole be partitioned into two parts?** **Draw a picture/jotting to represent their mathematics**	Understand and use conservation of number Use the word 'whole' to describe a set of objects Use the word 'part' to describe each partitioned set of objects Write numerals 6-9 for a given purpose
5	**Partition the whole set of objects between two groups** **9 and 10 objects - how many different ways can the whole be partitioned into two parts?** **Draw a picture/jotting to represent their mathematics**	Understand and use conservation of number Use the word 'whole' to describe a set of objects Use the word 'part' to describe each partitioned set of objects Write numerals 6-10 for a given purpose

Week 3 Big Idea – Understand 'Teens' Numbers (numbers 11-19)		
Lesson	**LAPS – Learning Objective**	**Related Learning**
1	**Count up to 20 objects (including different sized objects), moving each as they are counted**	**Recap** Rote count from 1 to a given number up to 10, stopping at the correct place **Recap** Count out a group of 10 objects from a greater set **Recap** Place 10 objects in a specified container and recognise that it holds 10 Join in with rote counting from 1 to 20 Rote count from 1 to a given number up to 20, stopping at the correct place
2	**Arrange a group of 11 objects into 1 group of 10 plus a group of 1 (use part – whole language)** Use number equipment such as art straws (bundles of 10) Unifix, ten frames, to create a group of 10 plus 1 **Repeat for the number 12 and 13** **Select the numeral to match amounts from 10 to 13 when in order**	Rote count from one number to another within 10, starting and stopping at the correct place Join in with rote counting up to 20 from a number other than 1 Recognise numerals 10-13 Identify a given number from a selection within the range 0-13 Find the numeral that comes before or after a given numeral
3	**Arrange a group of 14 objects into 1 group of 10 plus a group of 4 (use part – whole language)** Use number equipment such as art straws (bundles of 10) Unifix, ten frames, to create a group of 10 plus 4 **Repeat for the number 15 and 16** **Select the numeral to match amounts from 10 to 16 when in order**	Rote count from one number to another within 10, starting and stopping at the correct place Join in with rote counting up to 20 from a number other than 1 Recognise numerals 10-16 Identify a given number from a selection within the range 0-16 Find the numeral that comes before or after a given numeral
4	**As above for number 17, 18 and 19**	
5	**Recap numbers 11-19 being composed of a group of 10 plus another number** **Arrange a group of 20 objects into 2 groups of 10** **Select the numeral to match amounts from 10 to 20 when in order**	Recognise that when two ten frames are full this represents 20 Represent a given amount up to 20 using objects, own marks and symbols and explain what their symbols represent Recognise and identify numerals 0-20
Week 4 Big Idea – Distance (length, height, width) Opportunity to apply knowledge of numbers to 20		
Lesson	**LAPS – Learning Objective**	**Related Learning**
1	**Compare the lengths of two items using direct comparison and use the terms longer and shorter**	Understand that length refers to how long or short an item is Understand that to compare the lengths of objects they need to be pointing in the same direction Understand that comparing the lengths of objects is easier if they line up at one end Recognise that the length of an item does not change when it is moved to another place Recognise that the length does not change when its orientation changes
2	**Order a set of three items from longest to shortest (and vice versa) using direct comparison** **Use non-standard units that are not uniform (e.g. twigs) to measure length to recognise that different results may be obtained when measuring the same item**	Use a systematic approach to compare each item against the others (when comparing three items) Understand that the length of an object can be represented by a number Recognise that the number of uniform non-standard items must span from one end of the dimension being measured to the other with no gaps between the non-standard items

3	**Compare the widths of two items and use the terms wider and narrower** **Order a set of three items from widest to narrowest (and vice versa) using direct comparison** **Use non-standard units that are <u>not</u> uniform to measure width to recognise that different results may be obtained when measuring the same item**	Understand that width refers to how wide or narrow an item is Understand that to compare the widths of objects they need to be pointing in the same direction Understand that comparing the widths of objects is easier if they line up at one end Recognise that the width of an item does not change when it is moved to another place Recognise that the width does not change when its orientation changes Use a systematic approach to compare each item against the others (when comparing three items) Understand that the width of an object can be represented by a number Recognise that the number of uniform non-standard items must span from one end of the dimension being measured to the other with no gaps between the non-standard items
4	**Compare the heights of two items using direct comparison and use the terms taller and shorter** **Order a set of three items from shortest to tallest (and vice versa) using direct comparison** **Use non-standard units that are <u>not</u> uniform to measure height to recognise that different results may be obtained when measuring the same item**	Understand that height refers to how tall or short an item is Understand that to compare the heights of objects it is easier if they are near to each other Understand that comparing the heights of objects is easier if their bases are on the same level Recognise that the height of an item does not change when it is moved to another place
5	**Use non-standard units that are <u>not</u> uniform to measure lengths/heights/widths to recognise that different results may be obtained when measuring the same item** **Understand that the length/height/width of an object can be represented by a number**	Recognise that the number of uniform non-standard items must span from one end of the dimension being measured to the other with no gaps between the non-standard items Use a systematic approach to compare each item against the others (when comparing three items) Order a set of three items from tallest to shortest; longest to shortest; widest to narrowest Order a set of three items from shortest to tallest; shortest to longest; narrowest to widest
Week 5 Big Idea – Mass/Weight and Capacity/Volume Opportunity to apply knowledge of numbers to 20		
Lesson	**LAPS – Learning Objective**	**Related Learning**
1	**Explore what happens when two objects are placed on each side of the balance scale** **Understand that if the balance scale is level, the objects being compared are equal in mass/weight** **Use a balance scale to compare the weights of two objects understanding that the lower side contains the heavier object and the higher side contains the lighter object**	Understand that mass is the correct term for weight and that mass/weight refers to how heavy or light an item is Recognise that the mass/weight of an item does not change when the item is moved to a different place Recognise that the mass/weight of an item does not change when its orientation changes Understand and use language to compare two objects of different mass/weight e.g. heavier/ lighter
2	**Understand that the mass/weight of an object can be represented by a number** **Understand that to measure the mass/weight of an object using a balance scale the object needs to be placed on one side and counting items placed on the other side until the balance is level**	Use non-standard units that are **not** uniform (compare bears of different sizes or pebbles) to measure mass/weight to recognise that different results may be obtained when measuring the same item

3	**Understand that volume refers to how much liquid is in a container** **Understand that the capacity refers to how much a container can hold when it is full** **Use the terms full, empty, nearly full and nearly empty to describe volume/capacity** **Compare the volumes of two of the same container holding different amounts and use the terms more or less**	Understand that comparing the volume of two of the same containers holding different amounts is easier if they are near to each other Understand that comparing the volume of two of the same containers holding different amounts is easier if their bases are on the same level
4	**Use a systematic approach to compare each item against the others (when comparing three identical containers)** **Order a set of three identical containers from most full to least full and vice versa**	Recognise that the volume/capacity of a container does not change when its orientation changes Recognise that the volume/capacity of a container does not change when the item is moved to another place
5	**Understand that the capacity of a container can be represented by a number** **Understand that to measure the capacity of a container it needs to be filled by repeatedly using the same sized smaller container**	

Week 6 Big Idea – Shape and Sorting

Lesson	LAPS – Learning Objective	Related Learning
1	**Recognise and name circle** **Identify a circle from a wider selection of shapes** **Recognise and name square rectangle** **Identify a square rectangle from a wider selection of shapes** (rectangles can either be squares or oblongs, therefore the recommendation is to use the full name for these shapes) **Say what is the same about a given group of shapes**	Understand and use the terms straight, flat, round, side, sharp, point(ed), vertex/corner Find pairs of shapes that are identical Find pairs of shapes that are the same despite being different sizes Find pairs of shapes that are the same despite being in different orientations
2	**Recognise and name oblong rectangle** **Identify an oblong rectangle from a wider selection of shapes** **Recognise and name triangle** **Identify a triangle from a wider selection of shapes** **Say what is the same about a given group of shapes**	Understand and use the terms straight, flat, round, side, sharp, point(ed), vertex/corner Find pairs of shapes that are identical Find pairs of shapes that are the same despite being different sizes Find pairs of shapes that are the same despite being in different orientations Create pictures with 2-D shapes, naming some of the shapes used
3	**Recognise and name cube** **Identify a cube from a wider selection of shapes** **Recognise and name cuboid** **Identify a cuboid from a wider selection of shapes** **Say what is the same about a given group of shapes** **Build and make models with 3-D shapes**	Understand and use the terms flat, curved, solid, round, face, sharp, point(ed), vertex/corner Recognise that some shapes roll and some do not Find pairs of shapes that are identical Find pairs of shapes that are the same despite being different sizes Find pairs of shapes that are the same despite being in different orientations
4	**Recognise and name sphere** **Identify a sphere from a wider selection of shapes** **Say what is the same about a given group of shapes** **Build and make models with 3-D shapes**	Find pairs of shapes that are identical Find pairs of shapes that are the same despite being different sizes Find pairs of shapes that are the same despite being in different orientations Understand that shapes such as cubes and cuboids are better for building than spheres, cones and pyramids Understand that cylinders can be used for building if placed in the correct orientation
5	**Continue a repeating pattern** **Create a repeating pattern from a given description, e.g. make me a pattern that is circle, square rectangle, circle, square rectangle** Recognise where a set of objects is arranged in a repeating pattern and where it is not	Name and identify circles, triangles, square rectangles, oblong rectangles Name and identify spheres, cubes and cuboids Understand and use the terms first, before, next, after, between

Week 7 Big Idea – Addition (the focus is on understanding the concept of addition, **not** recording formal number sentences)		
Lesson	**LAPS – Learning Objective**	**Related Learning**
1	**Know that one more is found by adding one object to an existing group of objects** **Recognise that one more is the next number in the counting sequence (when counting in ones)**	
2	**Know that two more is found by adding two objects to an existing group of objects**	Understand that two can be made by adding one and another one Recognise that two more is one more and another one more
3	**Combine two groups of objects (total within 5) recalling how many are there in total using addition facts** **Combine two groups of objects (total within 10) counting how many are there**	
4	**In practical situations, understand that when two parts are combined, they make the whole**	Label the individual groups as **parts** Label the combined group of objects as the **whole**
5	**In practical situations, understand that when two parts are combined, they make the whole**	Label the individual groups as **parts** Label the combined group of objects as the **whole**
Week 8 Big Idea – Subtraction (the focus is on understanding the concept of subtraction, **not** recording formal number sentences)		
Lesson	**LAPS – Learning Objective**	**Related Learning**
1	**Know that one fewer is found by removing/taking away one object from an existing group** **Recognise that one less is the next number in the counting sequence when counting back (in ones)**	Know that fewer and less mean the same thing but fewer is used when counting objects
2	**Know that two fewer is found by removing/taking away two objects from an existing group**	Know that fewer and less mean the same thing but fewer is used when counting objects Recognise that two fewer is one fewer and another one fewer
3	**Combine two groups of objects (total within 5) recalling how many are there in total using addition facts** **Subtract a single-digit number from a number up to 5 by removing a given amount from a greater set (with a whole of up to 5) recalling how many are left using subtraction facts**	
4	**Subtract a single-digit number from a number up to 10 by removing a given amount from a greater set (with a whole of up to 10) counting to identify how many are left**	Label the original set of objects as the **whole** Label the removed group of objects and those that are left as **parts** when these are easy to distinguish from one another
5	**Subtract a single-digit number from a number up to 10 by removing a given amount from a greater set (with a whole of up to 10) counting to identify how many are left**	Label the original set of objects as the **whole** Label the removed group of objects and those that are left as **parts** when these are easy to distinguish from one another
Week 9 Big Idea – Halving and Doubling		
Lesson	**LAPS – Learning Objective**	**Related Learning**
1	**Understand that when an object (that can be cut) has been shared equally between two, both parts are the same**	Label the individual groups as **parts** Label the original group of objects as the **whole**
2	**Understand that when an amount has been shared equally between two, both parts are the same** **Recognise, by counting, whether an amount has been shared equally between two or not**	Label the individual groups as **parts** Label the original group of objects as the **whole**
3	**Understand that when an amount has been shared equally between two, both parts are the same** **Recognise, by counting, whether an amount has been shared equally between two or not**	Label the individual groups as **parts** Label the original group of objects as the **whole**

4	**In real life contexts, use practical equipment to identify the doubles of numbers up to 5** **Understand that doubling is adding the same number to itself**	Label the individual groups as **parts** Label the combined group of objects as the **whole**
5	**In real life contexts, use practical equipment to identify the doubles of numbers up to 5** **Understand that doubling is adding the same number to itself** **Automatically recall double facts to double 5**	Label the individual groups as **parts** Label the combined group of objects as the **whole**
Week 10 Big Idea – Number Sense		
Lesson	**LAPS – Learning Objective**	**Related Learning**
1	**Use number equipment such as bundles of art straws, Unifix (tower of 10), ten frame with counters to create a group of 10 plus another group**	Understand and use conservation of number Partition the 'whole' set of objects between two groups, e.g. 14 biscuits with 4 on one plate and 10 on another Use the word 'whole' to describe a set of objects, e.g. in a group of 14 biscuits, the 'whole' is 14
2	**Use number equipment such as bundles of art straws, Unifix (tower of 10), ten frames with counters to represent the full counting sequence from 1 to 20** (make own number track with numerals and amounts)	Use number equipment such as bundles of art straws, Unifix (tower of 10), ten frame with counters to create a group of 10 plus another group
3	**Use number equipment such as bundles of art straws, Unifix (tower of 10), ten frames with counters to represent given numbers within the full counting sequence from 1 to 20** (match numeral to amount and vice versa)	Use number equipment such as bundles of art straws, Unifix (tower of 10), ten frame with counters to create a group of 10 plus another group Recognise that when two ten frames are full this represents 20
4	**Understand and partition the numbers 11 to 19 as 10 and 1, 10 and 2, 10 and 3 etc.** (numbers/amounts of items represented on ten frames)	Understand and use **part** and **whole** language Know that when objects are arranged in a line are spread out the total remains the same Know that when a group of objects is moved to a different location (seen or unseen) the total remains the same Understand and use conservation of number
5	**Understand and partition the numbers 11 to 19 as 10 and 1, 10 and 2, 10 and 3 etc.** (numbers/amounts of items represented on using other ways of showing a group of 10 e.g. 10 pencils in a pot labelled 10 and some more loose pencils)	Understand and use **part** and **whole** language Know that when objects are arranged in a line are spread out the total remains the same Know that when a group of objects is moved to a different location (seen or unseen) the total remains the same Understand and use conservation of number
Week 11 Big Idea – Addition and Subtraction		
Lesson	**LAPS – Learning Objective**	**Related Learning**
1	**Find one more than a given number within 10** **Find one fewer/less than a given number within 10**	Understand that if one object/item is added to an amount and then that same object/item is taken away from this total, the result is the original number. This can progress on to adding one item and removing a different item.
2	**Find two more than a given number within 10** **Find two fewer/less than a given number within 10**	Understand that if two objects/items are added to an amount and then the same objects/items are taken away from this total, the result is the original number. This can progress on to adding two items and removing two different items.
3	**Understand that if a number is added to another and then the same number is then taken away from this total, the result is the original number.**	Combine two groups of objects (total within 10) counting how many there are. Remove a given amount from a greater set (with a whole of up to 10) counting to identify how many are left
4	**In practical situations, understand that when two parts are combined, they make the whole** Addition - Label the individual groups as **parts** - Label the combined group of objects as the **whole**	

5	**In practical situations, understand that when one part is removed from the whole it leaves another part** Subtraction - Label the original set of objects as the **whole** - Label the removed group of objects and those that are left as **parts** when these are easy to distinguish from one another	
Week 12 Big Idea – Addition and Subtraction		
Lesson	**LAPS – Learning Objective**	**Related Learning**
1	**In practical situations, understand that when two parts are combined, they make the whole** Addition - Label the individual groups as **parts** and use numerals to represent them - Label the combined group of objects as the **whole** and use numerals to represent them	Combine two groups of objects (total within 10) counting how many are there
2	**In practical situations, understand that when two parts are combined, they make the whole** Addition - Label the individual groups as **parts** and use numerals to represent them - Label the combined group of objects as the **whole** and use numerals to represent them	Combine two groups of objects (total within 10) counting how many are there
3	**In practical situations, understand that when one part is removed from the whole it leaves another part** Subtraction - Label the original set of objects as the **whole** and use numerals to represent them - Label the removed group of objects and those that are left as **parts** when these are easy to distinguish from one another and use numerals to represent them	Remove a given amount from a greater set (with a whole of up to 10) counting to identify how many are left
4	**In practical situations, understand that when one part is removed from the whole it leaves another part** Subtraction - Label the original set of objects as the **whole** and use numerals to represent them - Label the removed group of objects and those that are left as **parts** when these are easy to distinguish from one another and use numerals to represent them	Remove a given amount from a greater set (with a whole of up to 10) counting to identify how many are left
5	**Understand that if a number is added to another and then the same number is then taken away from this total, the result is the original number.**	Combine two groups of objects (total within 10) counting how many there are. Remove a given amount from a greater set (with a whole of up to 10) counting to identify how many are left