

## EYFS – Medium Term Planning

Alongside this document, ensure that the Calculation Policy is being used at all times:

### Non-Negotiables:

- Your weekly teaching must include opportunities for children to develop **Fluency, Reasoning** and **Problem Solving** skills.
- All lessons must offer **Greater Depth** opportunities for higher achievers
- Children must be taught to understand Mathematical structures through the use of models and images
- Children should be guided in their reasoning through the use of **Stem Sentences** and explicit use of accurate mathematical language by the teacher and children.
- Learning the correct number formation. (**Daily practise through modelling and scaffolding**).
- The Units below **MUST** be taught in this order – Please discuss with your Maths Leader if you wish to change this for any reason.

### Assessments

- Baseline in Autumn
- 3 times weekly recording in Maths (from Spring term) to inform instant interventions and adapt lessons to meet the needs of all learners
- Fluency Tests to be taken once every half term
- EOY ELG assessments

### Other Points:

- Any weeks left at the end of each term should be used for **closing the gap** and giving children the opportunity to **apply** their learnt skills to a real life context and open ended problem solving- see <https://nrich.maths.org/13371> for ideas.
- NCETM with links to number blocks planning- <https://www.ncetm.org.uk/resources/51439>
- **6 Key areas of Early Mathematical Learning:** Cardinality and Counting, Comparison, Composition, Pattern, Shape and Space, Measures  
<https://www.ncetm.org.uk/resources/52500>
- Share the day's date with the children - children to take ownership over date to recognise days of the weeks and order of months and link these to the short date.
- To use and display vocabulary related to time and to discuss times in a day e.g. playtime, lunchtime, home time
- Hearing/ learning a variety counting rhymes and song - **traditional Nursery Rhymes and action and maths rhymes to be sung regularly throughout each week and varied to ensure that children hear and sing a wide range.**
- Opportunities for children to count **individually** included in daily routine.
- Interactive maths game always to be planned in for continuous provision on classroom ICT. **Maths area to reflect current learning.**

**EYFS - Autumn Term**

Week 1	2	3	4	5	6	7	8	9	10	11	12
Baseline Assessments				Number and Place Value		Addition & Subtraction				Measurement –time	
				<p><b>Counting and recognition within 5</b></p> <ul style="list-style-type: none"> <li>Recognise some numerals of personal significance.</li> <li>Recognise numerals 1 to 5.</li> <li>Counts up to three or four objects by saying one number name for each item.</li> </ul>		<p><b>Sorting and comparing groups, one more/one less to 5 &amp; bonds to 5</b></p> <ul style="list-style-type: none"> <li>Uses the language of ‘more’ and ‘fewer’ to compare two sets of objects.</li> <li>Finds the total number of items in two groups by counting all of them.</li> <li>Says the number that is one more than a given number.</li> <li>Finds one more or one less from a group of up to five objects,</li> <li>In practical activities and discussion, beginning to use the vocabulary involved in adding and subtracting.</li> </ul>				<p><b>Time- My day</b></p> <ul style="list-style-type: none"> <li>Uses everyday language related to time.</li> <li>Orders and sequences familiar events.</li> <li>Measures short periods of time in simple ways.</li> </ul>	
				<p><b>Possible Stem Sentences:</b> 1,2,3- there are 3 ‘shells’ all together</p>		<p><b>Possible Stem Sentences:</b> 5 is the whole ‘2’ is part of 5 The number one more is the next number I count when I count forward The number one less is the next number I count when I count back</p>				<p><b>Possible Stem Sentences:</b></p>	
<p><b>Key Points</b></p> <ul style="list-style-type: none"> <li>Children should develop a strong foundation knowledge of numbers within 5.</li> <li>Children should be able to subitise with numbers within 5</li> <li>Children should be encouraged to estimate and reason</li> </ul> <p><b>Problem Solving and Reasoning Questions Support</b></p> <ul style="list-style-type: none"> <li>Nrich- <a href="https://nrich.maths.org/13371">https://nrich.maths.org/13371</a></li> </ul> <p><b>Possible Misconceptions:</b></p> <ul style="list-style-type: none"> <li>Misconceptions from using activities with different fonts e.g. 1 and l (or different numerals for 4 or 7) or children may confuse 2 and 5 due to transposing numbers when writing their own □ Counting errors– encourage children to check their counting for sense and error.</li> <li>They children may think that subtraction is commutative like addition.</li> <li>When counting on or back, pupils may say the number that they start on e.g. counting on from 8 to add 8 and 3 they may say “8, 9, 10”.</li> <li>Avoid misconceptions by calculating with a variety of objects and amounts to expose children to counting large objects and smaller ones – it is not the size of the individual item but their cardinal value. □ In a very young child’s understanding “yesterday” may relate to any event that is in the past.</li> <li>Similarly, they may not be able to understand future events such as next week, next month etc.</li> </ul> <p>NCETM with links to number blocks planning- <a href="https://www.ncetm.org.uk/resources/51439">https://www.ncetm.org.uk/resources/51439</a></p>											

**EYFS - Spring Term**

Week 1	2	3	4	5	6	7	8	9	10	11	12
Number and place value		Addition and subtraction to 10			Space, Shape & Measure			Money		Shapes 2D and 3D (Including exploring patterns)	
<p><b>Number &amp; Place Value: Within 10</b></p> <ul style="list-style-type: none"> <li>Counts objects to 10, and beginning to count beyond 10.</li> <li>Counts out up to six objects from a larger group.</li> <li>Selects the correct numeral to represent 1 to 5, then 1 to 10 objects.</li> <li>Counts an irregular arrangement of up to ten objects.</li> <li>Estimates how many objects they can see and checks by counting them.</li> </ul>		<p><b>Addition and subtraction to 10</b></p> <ul style="list-style-type: none"> <li>Finds one more or one less from a group of up to five objects, then ten objects.</li> <li>In practical activities and discussion, beginning to use the vocabulary involved in adding and subtracting.</li> <li>Records, using marks that they can interpret and explain.</li> <li>Begins to identify own mathematical problems based on own interests and fascinations.</li> <li>Using quantities and objects, they add and subtract two single-digit numbers and count on or back to find the answer.</li> </ul>			<p><b>SSM- size, weight and capacity</b></p> <ul style="list-style-type: none"> <li>Orders two or three items by length or height.</li> <li>Orders two items by weight or capacity.</li> <li>Children use everyday language to talk about size, weight, capacity to compare quantities and objects and to solve problems</li> </ul>			<p><b>Money</b></p> <ul style="list-style-type: none"> <li>Beginning to use everyday language related to money.</li> <li>Children use everyday language to talk about money to compare quantities and objects and to solve problems.</li> </ul>		<p><b>Shape</b></p> <ul style="list-style-type: none"> <li>Beginning to use mathematical names for 'solid' 3D shapes and 'flat' 2D shapes, and mathematical terms to describe shapes.</li> <li>Selects a particular named shape.</li> <li>They explore characteristics of everyday objects and shapes and use mathematical language to describe them.</li> <li>Uses familiar objects and common shapes to create and recreate patterns and build models.</li> <li>They recognise, create and describe patterns.</li> </ul>	
<p><b>Possible Stem Sentences:</b></p> <p>'4' is made up of '3' and '1' 1,2,3- there are 3 'shells' all together</p>		<p><b>Possible Stem Sentences:</b></p> <p>5 is the whole '2' is part of 5 The number one more is the next number I count when I count forward The number one less is the next number I count when I count back</p>			<p><b>Possible Stem Sentences:</b></p> <p>.....is longer, heavier, taller than.... .....is shorter, smaller, lighter than...</p>			<p><b>Possible Stem Sentences:</b></p> <p>This is a .... coin that has the value of....pence There are 3 one pennies and the total value is... I say 2 pence but I think 2 one pennies</p>		<p><b>Possible Stem Sentences:</b></p> <p>A 'triangle' has 3 sides and 3 vertices.</p>	

**Key Points**

- Think about prior learning and vocabulary the children have already been exposed to ☐ Then break down the learning into small steps for the unit of work.

**Problem Solving and Reasoning Questions Support**

☐ Nrich- <https://nrich.maths.org/13371>

**Possible Misconceptions:**

- Misconceptions from using activities with different fonts e.g. 1 and l (or different numerals for 4 or 7) or children may confuse 2 and 5 due to transposing numbers when writing their own ☐ Counting errors—encourage children to check their counting for sense and error.
- They children may think that subtraction is commutative like addition.
- When counting on or back, pupils may say the number that they start on e.g. counting on from 8 to add 8 and 3 they may say “8, 9, 10”.
- When directly comparing two objects, children may not match the ends together correctly, thus giving a false impression of which is smaller or larger.
- Children may not see a crooked line is longer than a straight line even if they begin and end at the same point.
- Children may confuse length and width e.g. they may think a wide ribbon is longer than a narrower one.
- Children may confuse size with weight so it is worth giving examples of large, light packages and small, heavy objects ☐ Counting the number of coins (unless they are only 1p coins) and often feel confused that 2p = 2 1 pence coins etc.
- They may also think that a 2 pence coin is worth more than a 5 pence coin because it is physically larger
- Children may not recognise shapes if they are constantly given the same shape in the same orientation

NCETM with links to number blocks planning- <https://www.ncetm.org.uk/resources/51439>

**EYFS – Summer Term**

Week 1	2	3	4	5	6	7	8	9	10	11	12
<b>Number and place value</b>		<b>Addition and subtraction</b>			<b>Halving doubling sharing</b>			<b>Geometry</b>		<b>M easurement</b>	
<b>Number and place value- to 20</b> ☐ Children count reliably with numbers from one to 20, place them in order.		<b>Addition and subtraction- counting on and back</b> • Say which number is one more or one less than a given number • Using quantities and objects, they add and subtract two single-digit numbers and count on or back to find the answer.			<b>Halving doubling sharing</b> ☐ They solve problems, including doubling, halving and sharing.			<b>Exploring Patterns</b> • Make simple patterns • Explore more complex patterns		<b>Measure</b> gth, height & Distance • Len ight ☐ We acity • Ca	
<b>Possible Stem sentences:</b> There is ...tens and ...ones The 1 means one ten and the...means...ones		<b>Possible Stem sentences:</b> If we change the order of the numbers, the answer stays the same (addition) First...then...now			<b>Possible Stem sentences:</b> A half is one of 2 equal parts of a whole When I double I add 2 equal parts						

**Key Points**

- Use lots of different number representations and manipulatives

**Problem Solving and Reasoning Questions Support**

□ Nrich- <https://nrich.maths.org/13371>

**Possible Misconceptions:**

- Children may reverse digits when writing numbers
- Children may muddle digits in 2 digit numbers e.g. 12 becomes 21
- They children may think that subtraction is commutative like addition.
- There may be confusion between the symbols + - and =
- When counting on or back, pupils may say the number that they start on e.g. counting on from 8 to add 8 and 3 they may say “8, 9, 10”
- Avoid confusion by labelling parts such as “the biggest half of the pizza”
- When telling the time on an analogue clock, children may say 3 o'clock is “12 to 3” or “3 to 12” etc.

**Models and Images Support and Ideas**

NCETM with links to number blocks planning- <https://www.ncetm.org.uk/resources/51439>