



Belton Primary School

EYFS Maths Policy

Early Years Mathematics

Intent

Our whole school approach to the teaching of mathematics aims to give all of our pupils the opportunity to develop their skills in the three aims of mathematics - Fluency, Reasoning and Problem Solving. We teach a mastery curriculum, ensuring pupils have access to a wide range of activities to practise each skill and all abilities must have the opportunities to reason and problem solve. We aim for all pupils to be able to describe, explain, convince, justify and prove their answers.

Implementation

At Belton Primary school, we follow the White Rose planning for Maths. This ensures that the positive start the pupils make in the Early Years continues with clear progression and consistency throughout the school.

Planning is split into three week units.

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12	Week 13	Week 14
Autumn	Getting to Know You			Just Like Me!			It's Me 1 2 3!			Light and Dark			Consolidation	
Spring	Alive in 5!			Growing 6, 7, 8			Building 9 and 10			Consolidation				
Summer	To 20 and Beyond			First Then Now			Find My Pattern			On The Move				

Autumn Term

Week 1	Week 2	Week 3		Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12
<p>Getting to Know You</p> <p>Opportunities for settling in, introducing the areas of provision and getting to know the children.</p> <p>Key times of day, class routines. Exploring the continuous provision inside and out. Where do things belong? Positional language.</p>			Phase	Just Like Me!			It's Me 1 2 3!			Light and Dark		
			Number	Match and Sort Compare Amounts			Representing 1, 2 & 3 Comparing 1, 2 & 3 Composition of 1, 2 & 3			Representing Numbers to 5. One More and Less.		
			Measure, Shape and Spatial Thinking	Compare Size, Mass & Capacity Exploring Pattern			Circles and Triangles Positional Language			Shapes with 4 Sides. Time		

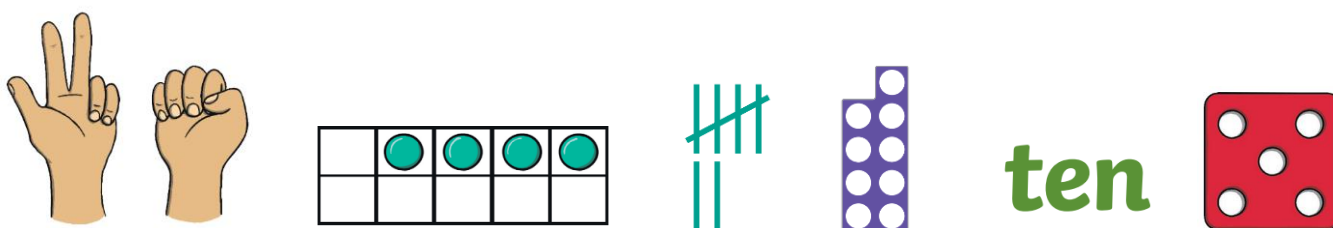
Spring Term

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9
Phase	Alive in 5!			Growing 6, 7, 8			Building 9 & 10		
Number	Introducing zero Comparing numbers to 5 Composition of 4 & 5			6, 7 & 8 Combining 2 amounts Making pairs			Counting to 9 & 10 Comparing numbers to 10 Bonds to 10		
Measure, Shape and Spatial Thinking	Compare Mass (2) Compare Capacity (2)			Length & Height Time			3d-shapes Patterns		

Summer Term

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12
Phase	To 20 and Beyond			First Then Now			Find my Pattern			On the Move		
Number	Building Numbers Beyond 10 Counting Patterns Beyond 10			Adding More Taking Away			Doubling Sharing & Grouping Even & Odd			Deepening Understanding Patterns and Relationships		
Spatial Thinking	Spatial Reasoning (1) Match, Rotate, Manipulate			Spatial Reasoning (2) Compose and Decompose			Spatial Reasoning (3) Visualise and Build			Spatial Reasoning (4) Mapping		

Our early years curriculum focuses on developing a really strong sense of numbers to 10. This will stand our pupils in good stead for the maths that follows as they move throughout the school. They learn a deep understanding of the link between numbers and quantity and represent numbers in many different ways.



Our pupils investigate how quantities are composed of smaller parts (e.g. 6 can be made of two 3s or three 2s). They learn how numbers relate to one another and learn to compare and order them. They explore how quantities change when you add more items or take items away. Our pupils may be able to recite the number names to twenty and beyond but a sense of what those numbers mean develops gradually with repeated experiences with different contexts and that is what we create and teach within the Early Years Foundation Stage.



Mathematical Vocabulary

Mathematical vocabulary is an essential part of our teaching which is built upon as each pupil progresses throughout our school. We verbalise the thinking we would like our pupils to demonstrate e.g. "I can see five spots and two more so, I can start from 5... 5,6,7. There are 7 spots altogether".

We use a 'my turn, your turn' approach with the teacher providing stem sentences for our pupils to communicate their ideas with mathematical precision and clarity. With lots of paired work and practise, these sentences then become part of the children's every day vocabulary.

Our lessons are practical, hands on and engaging. They give our pupils the opportunity to use a variety of manipulatives such as Numicon, counting bears, tens frames, part whole models, their fingers, counters, dice and playing cards.



Supporting Story Books

Story books are used to help our pupils see maths in different contexts.

How do Dinosaurs Count to 10? - Yolen & Teague
One Gorilla - Atsuko Morozumi
Mouse Count - Ellen Stoll Walsh
Nine Naughty Kittens - Linda Jenny
Feast for 10 - Cathryn Falwell
Cockatoos - Quentin Blake
Mr Magnolia - Quentin Blake
Ten Black Dots - Donald Crews
The Napping House - Audrey Wood & Don Wood
Engines Engines - L Bruce & S Waterhouse
Mouse Shapes - Ellen Stoll Walsh
Changes Changes - Pat Hutchins
Pattern Bugs - Trudy Harris
Busy Busy Busy - Haneul Ddang
Pattern Fish - Trudy Harris

Enabling Classroom Environment

The classroom learning environment is constructed to enable lots of opportunities for practical maths experiences. Maths resources are freely available within the provision and our skilled adults model mathematical concepts through play and in real life contexts.



Fluency - Non-negotiables

We believe that all pupils need to learn specific skills each year. Fluency demands more of learners than memorisation of a single procedure or collection of facts. It encompasses a mixture of efficiency, accuracy and flexibility to move between different contexts, making connections and recognising relationships.

The non-negotiables are taught and reinforced at the beginning of each lesson to enable fluency. Deeper thinking challenges are set within the provision to enable pupils to apply the information they have learnt. Adult-led activities are completed on a daily basis as part of the class Gold Star Challenge and enable the class teacher to assess new learning.

EYFS Non-negotiables

Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Say the number names in order to 5.	Say the number names in order to 10.	Begin to recognise the days of the week.	Partition numbers to 5 into two groups.	Count forwards and backwards in ones from any number up to 10.	Count forwards and backwards in ones from any number to 20.

The Counting Principles

In the EYFS we have regard for the five counting principles.

1

The one-one principle. This involves children assigning one number name to each object that is being counted. Children need to ensure that they count each object only once ensuring they have counted every object.

Children will sometimes count objects more than once or miss an object out that needs to be counted. Encourage children to line up objects and touch each one as they count saying one number name per object. This will also help to avoid children counting more quickly than they touch the objects which again shows they have not grasped one-one correspondence.



1



2



3



4



5

2

The stable-order principle. Children understand when counting, the numbers have to be said in a certain order.

Children need to know all the number names for the amount in the group they are counting. Teachers can therefore encourage children to count aloud to larger numbers without expecting them to count that number of objects immediately.

3

The cardinal principle. Children understand that the number name assigned to the final object in a group is the total number of objects in that group.

In order to grasp this principle, children need to understand the one-one and stable-order principle. From a larger group, children select a given number and count them out. When asked 'how many?', children should be able to recall the final number they said. Children who have not grasped this principle will recount the whole group again.

4

The abstraction principle. This involves children understanding that anything can be counted including things that cannot be touched including sounds and movements e.g. jumps.

When starting to count, many children rely on touching the objects in order to count accurately. Teachers can encourage abstraction on a daily basis by counting claps or clicks. They can also count imaginary objects in their head to encourage counting on, this involves the children visualising objects.

5

The order-irrelevance principle. This involves children understanding that the order we count a group of objects is irrelevant. There will still be the same number.

Encourage children to count objects, left to right, right to left, top to bottom and bottom to top. Once children have counted a group, move the objects and ask children how many there are, if they count them all again they have not fully grasped this principle.

Impact

Our Early Years Mathematics curriculum provides a good solid foundation for our mathematicians as they progress throughout the school. They have a strong sense of numbers to ten, a deep understanding of the link between number and quantity and are able to represent numbers in many different ways. They are able to use their maths skills in every day contexts including being able to subitise and can count on; knowing that they don't always have to start from the number one.

The children enjoy their maths lessons, show resilience when problem solving and leave the early years foundation stage ready to face the challenges of the maths curriculum throughout the remainder of their schooling life and beyond.