

Drifffield C of E Infant School



Early Years Foundation Stage Calculation Policy

This policy has been largely adapted from the White Rose Maths Hub Calculation Policy

Main Principles:

In the statutory framework for Early Years Foundation Stage (EYFS), the Early Learning Goal (ELG) is the standard children are expected to achieve by the end of their reception year. The ELG relevant to calculations is Number:

- Have a deep understanding of numbers to 10, including the composition of each number.
- Subitise (to recognise quantities without counting) up to 5.
- Automatically recall (without reference to rhymes, counting or other aids) number bonds up to 5 (including subtraction facts).

Calculations will be taught in a purposeful, practical way and children will use play and exploration to acquire the relevant mathematical skills to solve them. A large majority of mathematical work is practical, and learning will happen in many different contexts around the classroom and outside. Some mathematical concepts relating to calculations will be teacher led and children can also freely explore these concepts through a variety of different activities and resources set up each day. Learning is repeated using different resources and representations to embed understanding.

This policy has been largely adapted from the White Rose Maths Hub Calculation Policy with further material added. It illustrates the resources used in Foundation Stage to support the development of mathematical concepts and an understanding of number that lead to embedding the skills and increasing confidence to perform calculations.





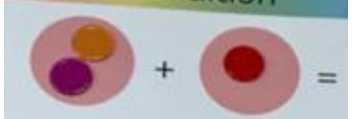




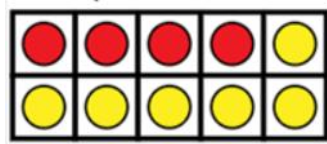
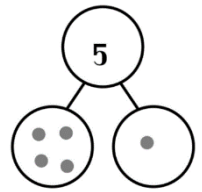
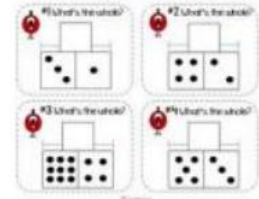
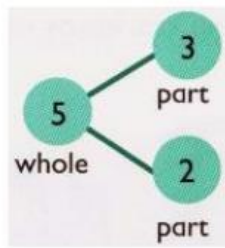
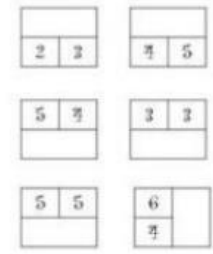
The children will leave us prepared for the next stage in their lives with:

- Quick recall of facts and procedures
- The flexibility and fluidity to move between different contexts and representations of mathematics
- The ability to recognise relationships and make connections in mathematics
- Confidence and belief that they can achieve
- The knowledge that maths underpins most of our daily lives
- Skills and concepts that have been mastered
- Have a positive and inquisitive attitude to mathematics as an interesting and attractive subject in which all children gain success


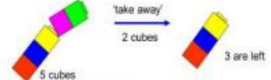

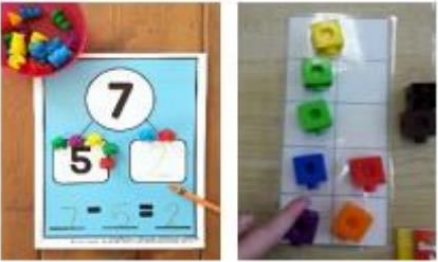
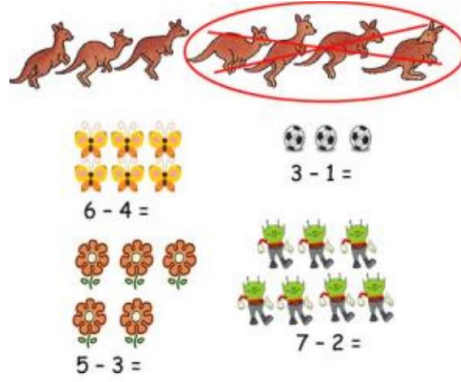
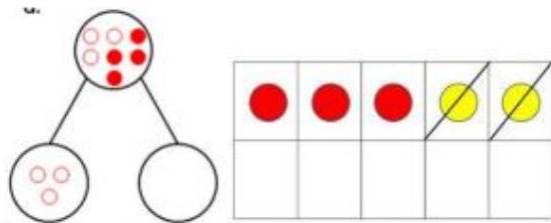
A mathematical concept or skill has been mastered when a child can show it in multiple ways, using the mathematical language to explain their ideas, and can independently apply the concept to new problems in unfamiliar situations and this is the goal for our children.

These will be assessed through: assessment, tracking, pupil progress meetings, performance management, moderation and standardisation.

Addition - Early Years Foundation Stage

Objectives	Concrete	Pictorial	Abstract
<p>Knows that a group of things change in quantity when something is added.</p> <p>Find the total number of items in two groups by counting all of them.</p> <p>Says the number that is one more than a given number.</p> <p>Finds one more from a group of up to five objects, then ten objects.</p> <p>In practical activities and discussion, beginning to use the vocabulary involved in adding.</p> <p>Using quantities and objects, they add two single digit numbers and count on to find the answer.</p> <p>Solve problems including doubling.</p>	<p style="text-align: center;"></p> <p>Use toys and general classroom resources for children to physically manipulate, group/regroup.</p> <p style="text-align: center;"></p> <p style="text-align: center;"></p> <p>Use specific maths resources such as counters, multilink cubes, Numicon etc.</p> <p style="text-align: center;"></p> <p style="text-align: center;"></p> <p>Use visual supports such as ten frames, part whole models and addition mats, where the physical objects and resources that can be manipulated.</p>	<p>Two groups of pictures so children are able to count the total.</p> <p style="text-align: center;"></p> <p style="text-align: center;"></p> <p style="text-align: center;"></p> <p style="text-align: center;"></p> <p>Use visual supports such as ten frames, part whole models and addition mats with pictures/ icons.</p> <p style="text-align: center;"></p> <p style="text-align: center;"></p> <p style="text-align: center;"></p>	<p>A focus on symbols and numbers to form a calculation.</p> <p style="text-align: center;">$5 + 2 = 7$</p> <p style="text-align: center;"></p> <p style="text-align: center;"></p> <p>No expectation for children to be able to record a number sentence/ addition calculation.</p>

Subtraction - Early Years Foundation Stage

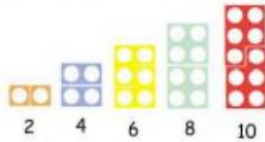
Objectives	Concrete	Pictorial	Abstract
<p>Knows that a group of things change in quantity when something is taken away.</p> <p>Find one less from a group of five objects, then ten objects.</p> <p>In practical activities and discussion, beginning to use the vocabulary involved in subtracting.</p> <p>Using quantities and objects, they subtract two single digit numbers and count back to find the answer.</p>	 <p>Use toys and general classroom resources for children to physically manipulate, group/regroup.</p>   <p>Use specific maths resources such as multilink cubes, Numicon, bead strings etc.</p>  <p>Use visual supports such as tens frames, part whole models and subtraction mats, with the physical objects and resources that can be manipulated.</p>	<p>A group of pictures for children to cross out or cover quantities to support subtraction.</p>  <p>Use visual supports such as tens frames and part whole models.</p> 	

Multiplication - Early Years Foundation Stage

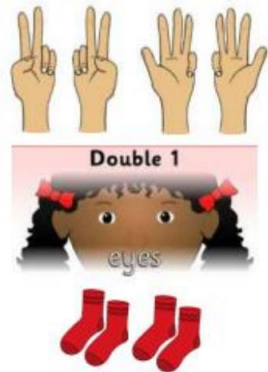
Objectives

Solve problems including doubling.

Concrete



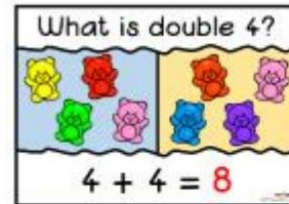
Use counting and other maths resources such as Numicon, sorting rings and peg boards for children to make 2 equal groups. Children will be able to physically see and make doubles in a variety of ways.



Physical and real life examples that encourage children to see the concept of doubling as adding two equal groups.

Pictorial

Pictures and icons that encourage children to see the concept of doubling as adding two equal groups.



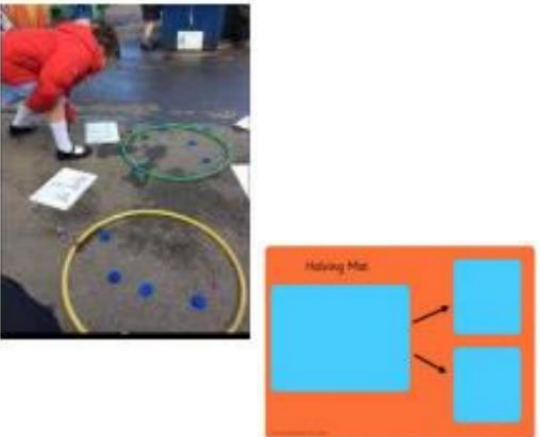

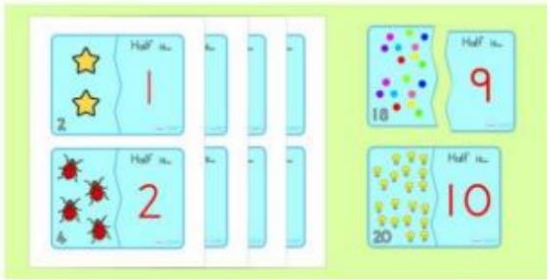
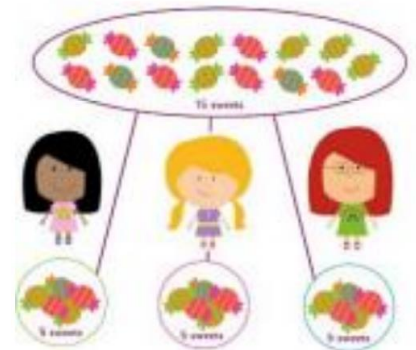


Abstract

Addition calculations to model adding two equal groups.

$1+1=$	$7+7=$
$2+2=$	$8+8=$
$3+3=$	$9+9=$
$4+4=$	$10+10=$
$5+5=$	$11+11=$
$6+6=$	$12+12=$

Division - Early Years Foundation Stage

Objectives	Concrete	Pictorial	Abstract
<p>Solve problems including halving and sharing.</p> <p>Halving a whole, halving a quantity of objects.</p> <p>Sharing a quantity of objects.</p>	<p>Children have the opportunity to physically cut objects, food or shapes in half.</p>   <p>Use visual supports such as halving mats and part whole models with physical objects and resources that can be manipulated.</p>  	<p>Pictures and icons that encourage children to see concept of halving in relation to subitising, addition and subtraction knowledge. E.G. Knowing 4 is made of 2 groups of 2, so half of 4 is 2.</p>   <p>Pictures for children to create and visualise 3 or more.</p>	

Counting and other maths resources for children to explore sharing between 3 or more.



Counting and other maths resources for children to share into two equal groups.