Birley Spa Primary Academy Calculation Policy (EYFS)

Comparison

Cardinality and counting

Composition

Addition

Subtraction

Multiplication

Division

![Birley Spa Primary Academy logo] Birley Spa Primary Academy
A L.E.A.D. Academy

Nursery:

Before addition can be introduced, children need to have a secure knowledge of number. In Nursery, children are introduced to the concept of counting, number order and number recognition through practical activities and games. This is taught through child initiated games such as hide and seek and I spy. Children also learn how to count 1-1 (pointing to each object as they count) and that anything can be counted, for example, claps, steps and jumps. This is reinforced by opportunities provided in the outdoor area for the children to count e.g. counting building blocks, twigs etc. Children develop the core ideas that underpin all calculation. They begin by connecting calculation with counting on and counting back, but they should learn that understanding wholes and parts will enable them to calculate efficiently and accurately, and with greater flexibility. They learn how to use an understanding of 10s and 1s to develop their calculation strategies, especially in addition and subtraction.

Key language: whole, part, ones, ten, tens, number bond, add, addition, plus, total, altogether, subtract, subtraction, find the difference, take away, minus, less, more, group, share, equal, equals, is equal to, groups, equal groups, times, multiply, multiplied by, divide, share, shared equally, times-table

Addition and subtraction:	Multiplication and division:	Fractions:

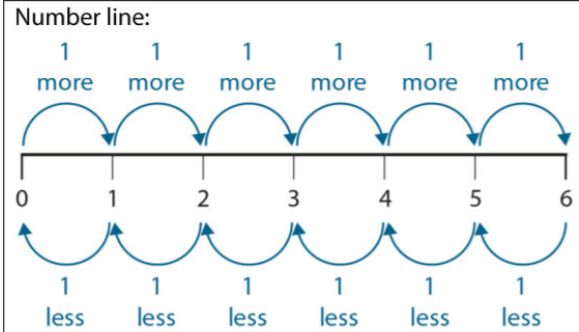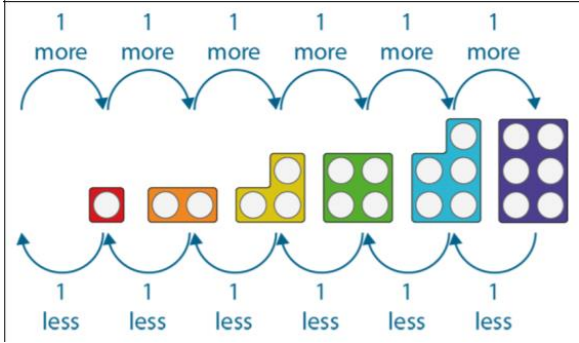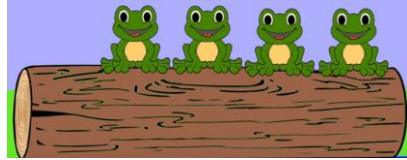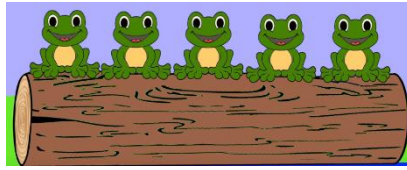|	Concrete	Pictorial	Progression
Comparison			
More than/ less than	Children are presented with sets of objects in order to decide which set contains the most/ fewest.	Children are presented with pictures in sets in order to decide which set contains the most/ fewest	- Two sets containing the same object but an obviously different amount in each. - Two sets containing different objects with an obviously different amount in each. - As above but with more than two sets. - As above but where the fewer amount contains larger objects than the greater amount in order to draw attention to numerocity not size. - As above but where the fewer amount are spread out more than the greater amount. - Children create their own groups of objects and state which contains more or fewer.
Identifying	Children identify that sets of objects contain	Children identify when drawings of sets of	- Use 1:1 matching to prove that two sets

2

groups with the same number of things	the same amount.	objects contain the same amount.	contain the same amount of one type of object. - As above but with different types of objects. - Children identify which sets contain the same amount out of more than two sets, e.g. two sets that contain 5 objects and one set that doesn't. - Children add or remove from one set to create two sets with equal amounts of objects. - Children problem solve by converting two unequal groups into two that contain the same amount by redistributing some of the objects.
Comparing numbers and reasoning	When presented with two numbers, children reason about which is greater/ smaller through counting or matching 1:1 with objects. Present children with examples of unfair sharing for them to reason why it's unfair, using the number names to explain their reasoning.	Who has more? Draw pictures in each box to prove it. I have five apples I have three apples Hannah Jakob _____ has more apples. Use a number line to help with reasoning about which is more.	- Compare numbers that are far apart from each other. - Compare numbers that are close to each other. - Compare numbers that are next to each other.

One more/ one less	Children explore the effect of adding or subtracting one in a practical context. 	 Number line: 	- Identify when a set does not contain the stated number. - Identify how to change the set so that it does contain the stated number (i.e. by adding or subtracting one) - Recognise the effect of one more/ one less on a number line. - Make predictions about the outcome of one more/ one less (fewer) in the context or rhymes and songs.
Cardinality and Counting			
Saying number words in sequence			- Forwards - Backwards
1:1 Corresponden ce			
Stable order			
Cardinality			

Abstraction			
Order Irrelevance			
Subitising			
Conservation			
Composition			
Part- Whole			
Inverse			
Partitioning numbers into different pairs of numbers			
Partitioning numbers into more than two numbers			
Number bonds			

Addition			
Aggregation			
Augmentation			
Add one			
Add two single-digit numbers by counting on			
Subtraction			
Take- away			
Partitioning			
Difference			
Subtract one			
Subtract two single-digit numbers by counting back			
Multiplication			
Equal groups			
Equal groups with specific numbers			
Skip counting			
Division			
Sharing			
Grouping			