## Calculation Policy Early Years.

## Implementation

Blenheim Park EYFS has adopted White Rose's curriculum documents. This policy sets out the school's approach to Early Years maths as it dovetails into Power Maths that begins in Year 1. At Blenheim Park we see the importance of moving from concrete to pictorial and then abstract recording, leading to more formal written methods. At Blenheim Park we recognise that the Concrete Pictorial Abstract (CPA) approach is highly effective in the teaching of Maths to develop conceptual understanding. Manipulatives (objects), pictorial representations, words, numbers and symbols are all around the classroom, as well as being freely available to the children to use as they require them. The White Rose approach incorporates these to help children explore and demonstrate mathematical ideas, enrich their learning experience and deepen understanding. Together, these elements help cement knowledge so pupils truly understand what they've learnt. All pupils, when introduced to a key new concept, will have the opportunity to build competency in this topic by taking this approach. Pupils are encouraged to physically represent mathematical concepts. Objects (manipulatives) and pictures are used to demonstrate and visualise abstract ideas, alongside numbers and symbols.

## Impact

Pupils 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 and pleasure. 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- observations of both adult led activities and independent, child led activities, tracking, pupil progress meetings, moderation and standardisation.

| Addition | Subtraction | Multiplication | Division |
| :---: | :---: | :---: | :---: |
| Children are encouraged to gain a sense of the number system through the use of counting concrete objects. <br> They combine objects in practical ways and count all. <br> They understand addition as counting on and will count on in ones and twos using objects, cubes, bead string and number line. <br> They use concrete and pictorial representation to record their calculations. <br> They begin to use + and = <br> They are encouraged to develop a mental picture of the number system in their heads to use for calculations. <br> Higher attaining children may be able to represent their calculations using $2 p 888_{8}+88=\bigcirc$ symbols and numbers within a written calculation. | Children are encouraged to gain a sense of the number system through the use of counting concrete objects. <br> They understand subtraction as counting out. <br> They begin to count back in ones and twos using objects, cubes, bead strings and number lines. <br> They use concrete and pictorial representation to record their calculations. <br> They begin to use - and = <br> They are encouraged to develop a mental picture of the number system in their heads to use for calculations. <br> Higher attaining children may be able to represent their calculations using symbols and numbers within a written calculation. | Children use concrete objects to make and count equal groups of objects. <br> They will count on in twos using a bead string and number line. <br> They understand doubling as repeated addition. $2+2=4$ <br> They use concrete and pictorial representation to record their calculations. <br> Higher attaining children may be able to represent their calculations using symbols and numbers within a written calculation. | Children use concrete objects to count and share equally into 2 groups. <br> 6 cakes shared between 2 people each person gets 3 cakes. $6 \div 2=3$ <br> They count a set of objects and halve them by making two equal groups. <br> They understand sharing and halving as dividing by 2. <br> They will begin to use objects to make groups of 2 from a given amount. <br> They use concrete and pictorial representation to record their calculations. <br> Higher attaining children may be able to represent their calculations using symbols and numbers within a written calculation. |

