## Reception

This policy supports the White Rose maths scheme used throughout the school. Progression within each area of calculation is in line with the programme of study in the 2014 National Curriculum.

This calculation poticy should be used to support children to develop a deep understanding of number and calculation. It has been designed to teach children through the use of concrete, pictorial and abstract representations.

- Concrete representation - a pupil is first introduced to an idea or skill by acting it out with real objects. This is 'hands on' using real objects and is a foundation for conceptual understanding
- Pictorial representation - a pupil has sufficiently understood the 'hands on' experiences performed and can now relate them to representations, such as a diagram or picture of the problem.
- Abstract representation - a pupil is now capable of representing problems by using mathematical notation, for example $12 \times 2=24$.

It is important that conceptual understanding, supported by the use of representation, is secure for all procedures. Reinforcement is achieved by going back and forth between these representations.

Reception

| Addition |  |  | Subtraction |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Explore part, part whole relationship combining two parts to make a whole. |  |  | Using concrete strategies for counting | Taking away after counting out practical equipment. . Children would be encouraged to physically remove these using touch counting. <br> By touch counting and dragging in this way, it allows children to keep track of how many they are removing so they don't have to keep recounting. They will then touch count the amount that are left to find the answer. <br> Those who are ready may record their own calculations |  |  |  |  |  |  |  |  |  |  |
| Using the ten frames to support addition of single digits counting all / combining two groups. |  | 00000 $6+4=10$ <br> 00000 $4+4=8$ <br> 000 $5+2=7$ <br> 00 $2+4=6$ <br> 00000  <br> 0  | Using the ten frames to support subtraction by taking away |  |  |  |  |  |  |  |  |  |  |  |


| Solving problems using concrete objects and pictorial images. |  | Solving problems using concrete, pictorial images. | Peter has 5 pencils and 3 erasers. How many more pencils than erasers does he have? |
| :---: | :---: | :---: | :---: |
| Multiplication |  |  | Division |
| Experiencing equal groups of objects <br> They will think about doubling when solving practical problems. | Children will experience equal groups of objects. | Sharing practical objects. <br> Hearing and being exposed to language to describe half and seeing visual representations. | Halving Mat |

