



MELDRETH  
Primary School

## About our Calculation Policy

The following calculation policy has been devised to meet requirements of the National Curriculum 2014 for the teaching and learning of mathematics, and is also designed to give pupils a consistent and smooth progression of learning in calculations across the school. Please note that early learning in number and calculation in Reception follows the 'Development Matters' EYFS document, and this calculation policy is designed to build on progressively from the content and methods established in the Early Years Foundation Stage.

### **Age stage expectations**

The calculation policy is organised according to age stage expectations as set out in the National Curriculum 2014. However it is vital that pupils are taught according to the stage that they are currently working at, being moved onto the next level when they are ready or working at a lower stage until they are secure enough to move on.

### **Providing a context for calculation**

It is important that any type of calculation is given a real life context or problem solving approach to help build children's understanding of the purpose of calculation, and to help them recognise when to use certain operations and methods when faced with problems. This is a priority within calculation lessons.

### **Choosing a calculation method**

Children need to be taught and encouraged to use the following processes in deciding what approach they will take to a calculation, to ensure they select the most appropriate method for the numbers involved...

**Can I do it in my head?**

**Could I use some jottings to help me?**

**Should I use a written method to work it out?**

# Addition

**Early Years** Add with numbers up to 20 combining two sets of objects into one group (5 cubes and 3 cubes)



**Key skills for addition in Early Years:**

- Recognise numerals 1 to 20 and place them in order.
- Count reliably up to 20 objects by saying one number name for each item.
- Count actions or objects which cannot be moved.
- Counts out objects from a larger group.
- Estimate how many objects they can see and check by counting.
- Find the total number of items in two groups by counting all of them.
- Says the number that is one more than a given number using fingers, number lines and objects.
- Record, using marks and pictures that they can interpret and explain.
- Solve problems, including doubling, e.g. 'You have 2 grapes, how many do you have when I give you 2 more?'

**Vocabulary:** add, more, too many, not enough, enough, total, altogether, double, twice, count on, number line

# Subtraction

## Early Years Subtract with numbers up to 20

combining two sets of objects into one group (5 cubes and 3 cubes)



### Key skills for subtraction in Early Years:

- Recognise numerals 1 to 20 and place them in order.
- Count actions or objects which cannot be moved.
- Help children to recognise that when a group of objects is separated in different ways the total is the same
- Model and encourage the use of mathematical language, e.g. 'less' and 'fewer'
- Estimate how many objects they can see and check by counting.
- Say the number that is one less than a given number using fingers, number lines and objects.
- Record, using marks and pictures that they can interpret and explain.
- Help children to recognise that when a group of objects is separated in different ways the total is the same.
- Pose problems such as 'how many will there be when we take 5 away?'

Vocabulary: take, take away, less, minus, subtract, leaves, difference



# Multiplication

**Early Years** Multiply with concrete objects, arrays and pictorial representations.



$$4 \times 4 \times 4$$

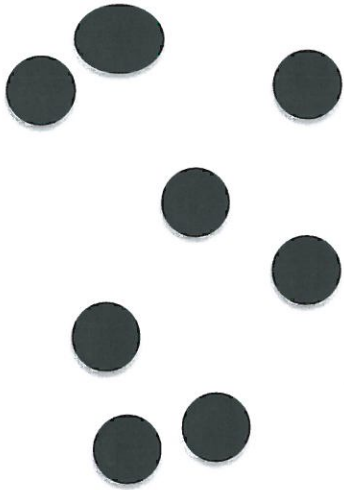
**Key skills for multiplication in Early Years:**

- Recognise numerals 1 to 20 and place them in order.
- Count actions or objects which cannot be moved.
- Record using marks that they can interpret and explain.
- Estimate how many objects they can see and check by counting.
- Say the number that is one less than a given number using fingers, number lines and objects.
- Record, using marks and pictures that they can interpret and explain.
- Help children to recognise that when a group of objects is separated in different ways the total is the same.
- Provide a wide range of number resources and encourage children to be creative in identifying and devising problems and solutions in all areas of learning.
- Help children to understand that five fingers on each hand make a total of ten fingers altogether, or that two rows of three eggs in the box make six eggs altogether.

Vocabulary: groups of, lots of, times, altogether, multiply, count

# Division

**Early Years** Group and share small quantities



**Key skills for division in Early Years:**

- Recognise numerals 1 to 20 and place them in order.
- Count actions or objects which cannot be moved.
- Record using marks that they can interpret and explain.
- Estimate how many objects they can see and check by counting.
- Record, using marks and pictures that they can interpret and explain.
- Help children to recognise that when a group of objects is separated in different ways the total is the same.
- Provide a wide range of number resources and encourage children to be creative in identifying and devising problems and solutions in all areas of learning.
- Encourage children to extend problems, e.g. *"Suppose there were three people to share the bricks between instead of two"*.

Vocabulary: **share, share equally, one each, two each..., group, groups of, lots of**