



# Maths

Curriculum Intent, Implementation and Impact  
for Maths at Co-op Academy Broadhurst

## Why is Maths an important part of the curriculum at Broadhurst?

At Co-op Academy Broadhurst, the intention is that children develop within their capabilities; not only the mathematics skills and understanding required for later life, but also an enthusiasm and fascination about maths itself.

Our aims are that our pupils are able to:

- become fluent in the fundamentals of mathematics, through varied and frequent practice with increasingly complex problems over time, so that pupils develop conceptual understanding and the ability to recall and apply knowledge rapidly and accurately.
- reason mathematically by following a line of enquiry, making generalisations, and developing an argument, justification or proof using mathematical language.
- solve problems by applying their mathematics to a variety of routine and non-routine problems with increasing sophistication, including breaking down problems into a series of simpler steps and persevering in seeking solutions.
- develop their character, including resilience, confidence and independence, so that they contribute positively to the life of the school, their local community and the wider environment.

We recognise that the skills that pupils learn in Maths can enhance their skills, knowledge and understanding in other subjects and enable them to make links within and across subjects.

## Essential Characteristics

- **Understanding** - Maths is a network of linked ideas. I can connect new mathematical thinking to what I already know and understand.
- **Tools** - I have a toolkit that I can choose tools from to help me solve problems. Practising using these tools (concrete and visual representations) helps me become a better mathematician.
- **Problem solving** - Problem solving is an important part of Maths. I can use my understanding, skills and reasoning to help me work towards solutions.
- **Reasoning** - Maths is logical. I can convince myself that my thinking is correct and I can explain my reasoning to others. I can make conclusions based on what I have learned.
- **Attitude** - Maths makes sense and is worth spending time on. I can enjoy Maths and become better at it by persevering. I will practise in different contexts and be resilient.

What are the key knowledge concepts in Maths at Broadhurst?

|      | Number                                                                                                                | Measurement                                    | Geometry                                                          |
|------|-----------------------------------------------------------------------------------------------------------------------|------------------------------------------------|-------------------------------------------------------------------|
| EYFS | Number sense<br>Counting<br>Reading and writing numbers<br>Ordering<br>Addition<br>Subtraction<br>Doubling<br>Halving | Weight<br>Length and width<br>Capacity<br>Time | 2D shapes<br>3D shapes<br>Spatial reasoning<br>Repeating patterns |

|     | Number                                                                                                                 | Measurement                     | Geometry                                        | Statistics                                                        |
|-----|------------------------------------------------------------------------------------------------------------------------|---------------------------------|-------------------------------------------------|-------------------------------------------------------------------|
| KS1 | Place value<br>Addition<br>Subtraction<br>Multiplication<br>Division<br>Fractions<br>Algebra (missing number problems) | Using measures<br>Money<br>Time | 2D shapes<br>3D shapes<br>Position<br>Direction | Present and interpret (Y2)<br>(Tally, pictograms, bar and tables) |

What are the key knowledge concepts in Maths at Broadhurst?

|      | Number                                                                                                                                  | Measurement                                                    | Geometry                                                            | Statistics                                                                                                      |
|------|-----------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------|---------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------|
| LKS2 | Place value<br>Addition<br>Subtraction<br>Multiplication<br>Division<br>Fractions<br>Decimals (Y4)<br>Algebra (missing number problems) | Using measures<br>Money<br>Time<br>Perimeter<br>Area (Y4)      | 2D shapes<br>3D shapes<br>Angles and lines<br>Position<br>Direction | Present and interpret<br>(Bar, pictogram and tables)<br>(Y4: discrete and continuous data, bar and time graphs) |
|      | Number                                                                                                                                  | Measurement                                                    | Geometry                                                            | Statistics                                                                                                      |
| UKS2 | Place value<br>Addition<br>Subtraction<br>Multiplication<br>Division<br>Fractions<br>Decimals<br>Percentages<br>Algebra (Y6)<br>Ratio   | Using measures<br>Money<br>Time<br>Perimeter<br>Area<br>Volume | 2D shapes<br>3D shapes<br>Angles and lines<br>Position<br>Direction | Present and interpret<br>(Tables including timetables and line graphs<br>Y6: Mean as an average)                |

## **The Foundation Stage**

In Early Years, we follow the Statutory Framework for the Early Years Foundation Stage, 2021, and the Early Learning Goals.

“Developing a strong grounding in number is essential so that all children develop the necessary building blocks to excel mathematically. Children should be able to count confidently, develop a deep understanding of the numbers to 10, the relationships between them and the patterns within those numbers. By providing frequent and varied opportunities to build and apply this understanding - such as using manipulatives, including small pebbles and tens frames for organising counting - children will develop a secure base of knowledge and vocabulary from which mastery of mathematics is built. In addition, it is important that the curriculum includes rich opportunities for children to develop their spatial reasoning skills across all areas of mathematics including shape, space and measures. It is important that children develop positive attitudes and interests in mathematics, look for patterns and relationships, spot connections, ‘have a go’, talk to adults and peers about what they notice and not be afraid to make mistakes.”

DfE, 2021

### **The National Curriculum and Programmes of Study**

We follow the aims described within the National Curriculum Programmes of Study for Mathematics, which sets out year-by-year areas of learning for Key Stage 1 and 2.

“The expectation is that the majority of pupils will move through the programmes of study at broadly the same pace. However, decisions about when to progress should always be based on the security of pupils’ understanding and their readiness to progress to the next stage. Pupils who grasp concepts rapidly should be challenged through being offered rich and sophisticated problems before any acceleration through new content. Those who are not sufficiently fluent with earlier material should consolidate their understanding, including through additional practice, before moving on.”

DfE, 2013

## **EYFS**

### **Number ELG**

Children at the expected level of development will:

- Have a deep understanding of number to 10, including the composition of each number;
- Subitise (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) and some number bonds to 10, including double facts.

### **Numerical Patterns ELG**

Children at the expected level of development will:

Verbally count beyond 20, recognising the pattern of the counting system;

- Compare quantities up to 10 in different contexts, recognising when one quantity is greater than, less than or the same as the other quantity;
- Explore and represent patterns within numbers up to 10, including evens and odds, double facts and how quantities can be distributed equally.

## KS1

- The principal focus of mathematics teaching in key stage 1 is to ensure that pupils develop confidence and mental fluency with whole numbers, counting and place value. This should involve working with numerals, words and the four operations, including with practical resources [for example, concrete objects and measuring tools].
- At this stage, pupils should develop their ability to recognise, describe, draw, compare and sort different shapes and use the related vocabulary. Teaching should also involve using a range of measures to describe and compare different quantities such as length, mass, capacity/volume, time and money.
- By the end of year 2, pupils should know the number bonds to 20 and be precise in using and understanding place value. An emphasis on practice at this early stage will aid fluency.
- Pupils should read and spell mathematical vocabulary, at a level consistent with their increasing word reading and spelling knowledge at key stage 1.

## LKS2

- The principal focus of mathematics teaching in lower key stage 2 is to ensure that pupils become increasingly fluent with whole numbers and the four operations, including number facts and the concept of place value. This should ensure that pupils develop efficient written and mental methods and perform calculations accurately with increasingly large whole numbers.
- At this stage, pupils should develop their ability to solve a range of problems, including with simple fractions and decimal place value. Teaching should also ensure that pupils draw with increasing accuracy and develop mathematical reasoning so they can analyse shapes and their properties, and confidently describe the relationships between them. It should ensure that they can use measuring instruments with accuracy and make connections between measure and number.
- By the end of year 4, pupils should have memorised their multiplication tables up to and including the 12 multiplication table and show precision and fluency in their work.
- Pupils should read and spell mathematical vocabulary correctly and confidently, using their growing word reading knowledge and their knowledge of spelling.

## UKS2

- The principal focus of mathematics teaching in upper key stage 2 is to ensure that pupils extend their understanding of the number system and place value to include larger integers. This should develop the connections that pupils make between multiplication and division with fractions, decimals, percentages and ratio.
- At this stage, pupils should develop their ability to solve a wider range of problems, including increasingly complex properties of numbers and arithmetic, and problems demanding efficient written and mental methods of calculation. With this foundation in arithmetic, pupils are introduced to the language of algebra as a means for solving a variety of problems. Teaching in geometry and measures should consolidate and extend knowledge developed in number. Teaching should also ensure that pupils classify shapes with increasingly complex geometric properties and that they learn the vocabulary they need to describe them.
- By the end of year 6, pupils should be fluent in written methods for all four operations, including long multiplication and division, and in working with fractions, decimals and percentages.
- Pupils should read, spell and pronounce mathematical vocabulary correctly.

## **Planning**

We use the White Rose Maths long term and medium term plans as the various aspects of the maths curriculum are covered by each year group in line with the National Curriculum expectations. These help teachers to ensure that all areas of the maths curriculum are covered for the relevant year group and provides guidance about the order in which to teach the topics. To learn mathematics effectively, some things have to be learned before others, e.g. place value needs to be understood before working with addition and subtraction, addition needs to be learnt before looking at multiplication (repeated addition).

These plans are used as a guide for teachers to use in their maths planning. However, teachers are expected to use on going assessments and analysis of data to inform planning which may mean that some of the long and medium term plans will be adapted to meet the needs of the children in each class.

Teachers may refer to previous years' long term plans for those children who have additional needs and are not working within the age related expectations for their year group.

At Co-op Academy Broadhurst, we recognise the need to revisit topics regularly to revise and consolidate skills and then extend them. Every objective in the yearly teaching programme is covered at least once by the end of the year.

We believe that the children should take smaller steps through learning (and not rush through content) because it will lead to deeper understanding of mathematical concepts, as children are given the time to internalise their maths learning.

At Co-op Academy Broadhurst, we use the White Rose Calculation Policy to ensure consistency.

[https://drive.google.com/file/d/1usZfRFqOdII0U2MSuzwkTW4RY7\\_df\\_m3/view?usp=sharing](https://drive.google.com/file/d/1usZfRFqOdII0U2MSuzwkTW4RY7_df_m3/view?usp=sharing)

<https://drive.google.com/file/d/1Z-bxTPCYaQpcWrE7nWFWhtLw8NuYg6zm/view?usp=sharing>

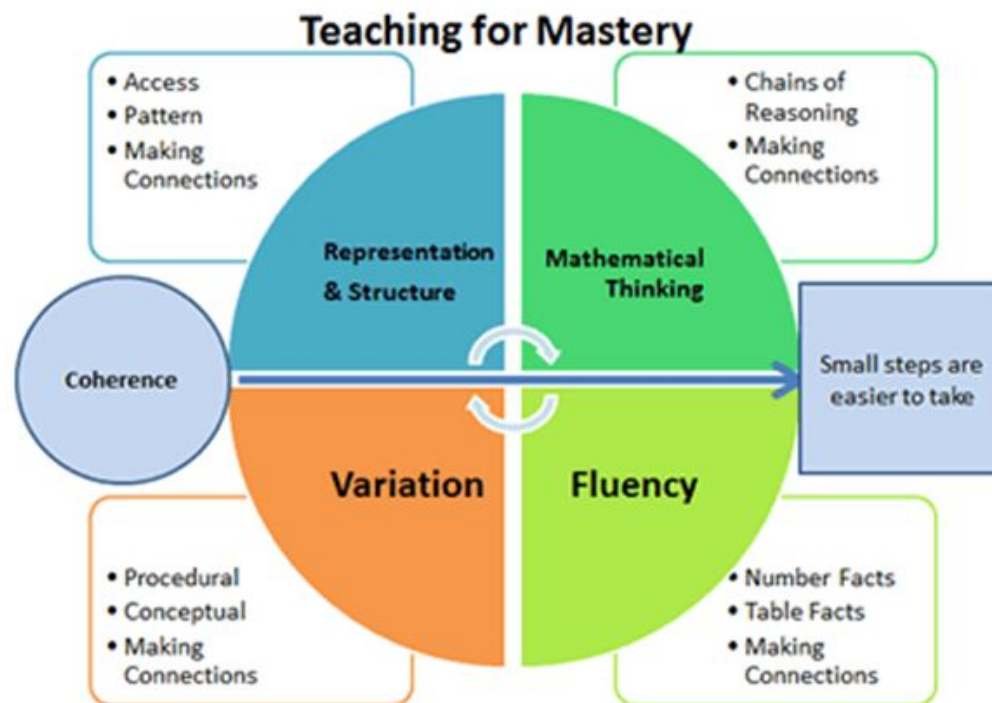
## Lesson Design

- Teachers deliver a curriculum that implements the aims of the curriculum – fluency, reasoning and problem solving. Greater emphasis is given to solving problems to aid deeper learning, instead of moving children on to different content.
- Teachers across the school use the activities and tasks provided by White Rose Maths, the 'Maths Toolkit' devised by Tara Loughlan (Total Maths) and Testbase as well as other appropriate materials.
- As a school, we adopt the CPA (Concrete Pictorial Abstract) approach to teaching maths which is a system of learning that uses physical and visual aids to build a child's understanding of abstract topics.
- As communication is fundamental, we will provide many opportunities for the children to develop their competency in this skill, encouraging them to explain and justify using mathematical vocabulary.
- We endeavor to set work that is challenging, motivating and encourages the pupils to talk about what they have been learning and to provide opportunities for all students to achieve success, and be enthusiastic and passionate about mathematics.

## Lesson Design

### Features of a lesson/ series of lessons:

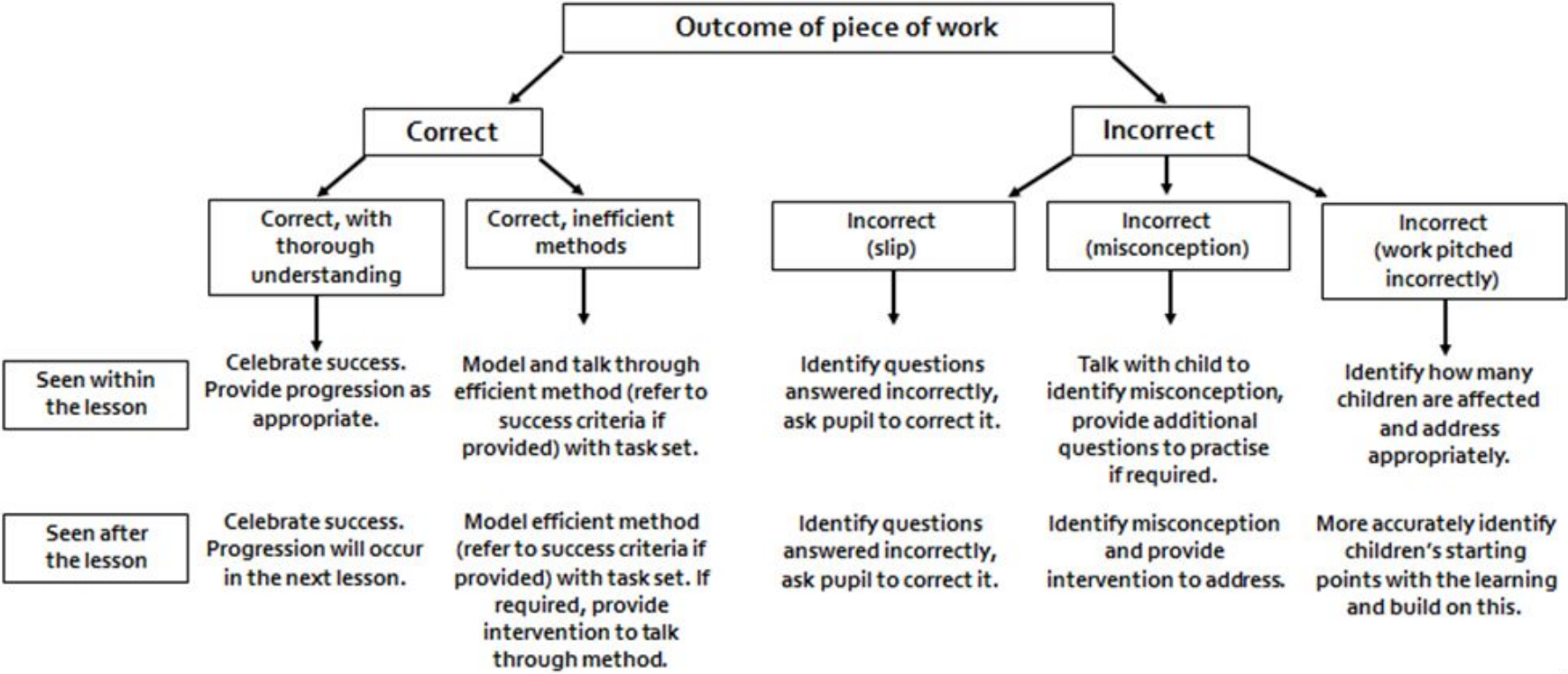
- Teaching the whole class together
- Small steps
- Precise use of mathematical language
- Use of stem sentences to highlight maths structures
- Opportunities for children to go deeper
- Analysis of strategies
- Discussion
- Variation of concepts
- Variation of procedural
- Small focus
- Misconceptions addressed and planned for



Marking and Feedback

Where children have made mistakes, teachers will identify whether the errors are caused by slips/lack of concentration or an underlying misconception. Errors that are the result of slips may be corrected by the child. Errors that are the result of a misconception will be addressed immediately or (where this is not possible) through timely intervention that fits into the unit of work.

The table below summarises the possible outcomes of children’s work in mathematics and the likely responses from the teacher.



## Marking and Feedback

When marking children's work it is useful to annotate it to reflect how and when it has taken place. Annotations should include:

✓ **Single tick:** The answer is correct.

**S:** work that has been completed with the support of an adult (the original pitch of the learning must be carefully considered so that the supporting adult does not have to 'over-scaffold' the work)

**C:** work that has been completed with the support of concrete resources

**Green dot:** There is an error. The child is expected to correct it.

**Circle in green:** Number reversal, model correct formation, child is then expected to correct their error.

**VF:** This indicates that the child has received verbal feedback within the lesson or will focus on it during the allocated fix-it time.

## **Rationale for progression**

- The curriculum identifies points where comparisons can be made
- Key concepts are revisited year on year to consolidate pupils understanding
- Knowledge that is taught builds on prior learning and is therefore more in-depth
- Increasing complexity of subject specific language and precision is expected
- Children will develop their understanding and use of mathematical language
- Children will be able to think critically and develop a more rigorous understanding of Maths
- Children are able to talk about their learning use the appropriate vocabulary

See National Curriculum Progression document for Maths which outlines what should be taught in each year group and what should have been covered in previous years. This progression document provides an overview of the whole primary phase of how topics are developed over time.

<https://drive.google.com/file/d/1nNIUEyEq3mXa6dP8zCQjvR4OybG6R9gK/view?usp=sharing>

EYFS Progression Document:

<https://docs.google.com/document/d/1R0frPW7CWstgn636ZUErajtksdANQwrS/edit?usp=sharing&ouid=100212520974946980909&rtpof=true&sd=true>

## Nursery

|                                                                 |                                   |               |                                         |           |                                        |
|-----------------------------------------------------------------|-----------------------------------|---------------|-----------------------------------------|-----------|----------------------------------------|
| Making sets (comparisons)<br>Sorting<br>Introduction to 5 frame | Experiment with marks<br>Patterns | Counting to 5 | Shape, space and<br>developing language | Measuring | Subitising<br>Numeral recognition 0-10 |
|-----------------------------------------------------------------|-----------------------------------|---------------|-----------------------------------------|-----------|----------------------------------------|

## Reception

| Autumn                                                                                                                                                                                                                                                                                                                                                                                                             | Spring                                                                                                                                                                                                                                                                                                                                                                                                | Summer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p><b>Phase 1</b><br/>Match and sort<br/>Making comparisons<br/>Exploring pattern</p> <p><b>Phase 2</b><br/><b>123</b><br/>Representing 1 2 3<br/>Comparing 1 2 3<br/>Composition of 1 2 3</p> <p><b>Geometry and Spatial Thinking</b><br/>Circles and triangles</p> <p><b>Phase 3</b><br/>Numbers to 5</p> <p><b>Geometry and Spatial Thinking</b><br/>Shapes with 4 sides</p> <p><b>Measurement</b><br/>Time</p> | <p><b>Phase 4</b><br/><b>Alive in 5</b><br/>Introducing 0<br/>Comparing numbers to 5<br/>Composition of 4 and 5<br/>Compare Mass<br/>Compare Capacity</p> <p><b>Phase 5</b><br/><b>Growing 6, 7, 8</b><br/>Making Pairs<br/>Combining 2 groups<br/>Length and Height<br/>Time</p> <p><b>Phase 6</b><br/><b>Building 9 and 10</b><br/>Comparing numbers to 10 Bonds to 10<br/>3D shape<br/>Pattern</p> | <p><b>Phase 7</b><br/>Building numbers and counting patterns beyond 10</p> <p><b>Spatial Reasoning</b><br/>Match Rotate Manipulate</p> <p><b>Phase 8</b><br/>Adding More and Taking Away</p> <p><b>Spatial Reasoning</b><br/>Compose and Decompose</p> <p><b>Phase 9</b><br/>Find my Pattern<br/>Doubling<br/>Sharing and Grouping<br/>Even and Odd</p> <p><b>Spatial Reasoning</b><br/>Visualise and Build</p> <p><b>Phase 10</b><br/>Deepening Understanding<br/>Patterns and Relationships</p> <p><b>Spatial Reasoning</b><br/>Mapping</p> |

|             | Week 1                                                                   | Week 2                                                                                  | Week 3                                                                     | Week 4 | Week 5                                                                                  | Week 6                                                 | Week 7 | Week 8                                                                | Week 9                                                                    | Week 10                                                                  | Week 11                                          | Week 12       |
|-------------|--------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|----------------------------------------------------------------------------|--------|-----------------------------------------------------------------------------------------|--------------------------------------------------------|--------|-----------------------------------------------------------------------|---------------------------------------------------------------------------|--------------------------------------------------------------------------|--------------------------------------------------|---------------|
| Autumn term | <div>Number</div> <div>Place value<br/>(within 10)</div> <div>VIEW</div> |                                                                                         |                                                                            |        | <div>Number</div> <div>Addition &amp; subtraction<br/>(within 10)</div> <div>VIEW</div> |                                                        |        |                                                                       | <div>Geometry<br/>Shape</div> <div>VIEW</div>                             | <div>Number</div> <div>Place value<br/>(within 20)</div> <div>VIEW</div> |                                                  |               |
| Spring term | Consolidation                                                            | <div>Number</div> <div>Addition &amp; subtraction<br/>(within 20)</div> <div>VIEW</div> |                                                                            |        | <div>Number</div> <div>Place value<br/>(within 50)</div> <div>VIEW</div>                |                                                        |        | <div>Measurement</div> <div>Length &amp; height</div> <div>VIEW</div> |                                                                           | <div>Measurement</div> <div>Weight &amp; volume</div> <div>VIEW</div>    |                                                  | Consolidation |
| Summer term |                                                                          | Consolidation                                                                           | <div>Number</div> <div>Multiplication &amp; division</div> <div>VIEW</div> |        |                                                                                         | <div>Number</div> <div>Fractions</div> <div>VIEW</div> |        | <div>Geometry<br/>Position &amp; direction</div> <div>VIEW</div>      | <div>Number</div> <div>Place value<br/>(within 100)</div> <div>VIEW</div> |                                                                          | <div>Measurement<br/>Money</div> <div>VIEW</div> |               |

Long term Plan: Year 2

|             | Week 1                                                   | Week 2 | Week 3                                                                   | Week 4                                                 | Week 5                                                                | Week 6                                | Week 7                                                              | Week 8                                                                | Week 9                                                                           | Week 10                  | Week 11 | Week 12 |
|-------------|----------------------------------------------------------|--------|--------------------------------------------------------------------------|--------------------------------------------------------|-----------------------------------------------------------------------|---------------------------------------|---------------------------------------------------------------------|-----------------------------------------------------------------------|----------------------------------------------------------------------------------|--------------------------|---------|---------|
| Autumn term | <div>Number</div> <div>Place value</div> <div>VIEW</div> |        |                                                                          |                                                        | <div>Number</div> <div>Addition and subtraction</div> <div>VIEW</div> |                                       |                                                                     |                                                                       | <div>Geometry</div> <div>Shape</div> <div>VIEW</div>                             |                          |         |         |
| Spring term | <div>Measurement</div> <div>Money</div> <div>VIEW</div>  |        | <div>Number</div> <div>Multiplication and division</div> <div>VIEW</div> |                                                        |                                                                       |                                       | <div>Measurement</div> <div>Length and height</div> <div>VIEW</div> |                                                                       | <div>Measurement</div> <div>Mass, capacity and temperature</div> <div>VIEW</div> |                          |         |         |
| Summer term | <div>Number</div> <div>Fractions</div> <div>VIEW</div>   |        |                                                                          | <div>Measurement</div> <div>Time</div> <div>VIEW</div> |                                                                       | <div>Statistics</div> <div>VIEW</div> |                                                                     | <div>Geometry</div> <div>Position and direction</div> <div>VIEW</div> |                                                                                  | <div>Consolidation</div> |         |         |

|             | Week 1                                                                     | Week 2                                                  | Week 3 | Week 4                                                                 | Week 5 | Week 6                                                   | Week 7                                               | Week 8                                                                     | Week 9 | Week 10                  | Week 11 | Week 12 |
|-------------|----------------------------------------------------------------------------|---------------------------------------------------------|--------|------------------------------------------------------------------------|--------|----------------------------------------------------------|------------------------------------------------------|----------------------------------------------------------------------------|--------|--------------------------|---------|---------|
| Autumn term | <div>Number</div> <div>Place value</div> <div>VIEW</div>                   |                                                         |        | <div>Number</div> <div>Addition and subtraction</div> <div>VIEW</div>  |        |                                                          |                                                      | <div>Number</div> <div>Multiplication and division A</div> <div>VIEW</div> |        |                          |         |         |
| Spring term | <div>Number</div> <div>Multiplication and division B</div> <div>VIEW</div> |                                                         |        | <div>Measurement</div> <div>Length and perimeter</div> <div>VIEW</div> |        | <div>Number</div> <div>Fractions A</div> <div>VIEW</div> |                                                      | <div>Measurement</div> <div>Mass and capacity</div> <div>VIEW</div>        |        |                          |         |         |
| Summer term | <div>Number</div> <div>Fractions B</div> <div>VIEW</div>                   | <div>Measurement</div> <div>Money</div> <div>VIEW</div> |        | <div>Measurement</div> <div>Time</div> <div>VIEW</div>                 |        |                                                          | <div>Geometry</div> <div>Shape</div> <div>VIEW</div> | <div>Statistics</div> <div>VIEW</div>                                      |        | <div>Consolidation</div> |         |         |

|             | Week 1                                                                     | Week 2 | Week 3                                                  | Week 4                                                                 | Week 5                                                                | Week 6                   | Week 7                                                 | Week 8                                                                     | Week 9                                                  | Week 10                                                               | Week 11 | Week 12 |
|-------------|----------------------------------------------------------------------------|--------|---------------------------------------------------------|------------------------------------------------------------------------|-----------------------------------------------------------------------|--------------------------|--------------------------------------------------------|----------------------------------------------------------------------------|---------------------------------------------------------|-----------------------------------------------------------------------|---------|---------|
| Autumn term | <div>Number</div> <div>Place value</div> <div>VIEW</div>                   |        |                                                         |                                                                        | <div>Number</div> <div>Addition and subtraction</div> <div>VIEW</div> |                          | <div>Measurement</div> <div>Area</div> <div>VIEW</div> | <div>Number</div> <div>Multiplication and division A</div> <div>VIEW</div> |                                                         | <div>Consolidation</div>                                              |         |         |
| Spring term | <div>Number</div> <div>Multiplication and division B</div> <div>VIEW</div> |        |                                                         | <div>Measurement</div> <div>Length and perimeter</div> <div>VIEW</div> | <div>Number</div> <div>Fractions</div> <div>VIEW</div>                |                          |                                                        |                                                                            | <div>Number</div> <div>Decimals A</div> <div>VIEW</div> |                                                                       |         |         |
| Summer term | <div>Number</div> <div>Decimals B</div> <div>VIEW</div>                    |        | <div>Measurement</div> <div>Money</div> <div>VIEW</div> | <div>Measurement</div> <div>Time</div> <div>VIEW</div>                 |                                                                       | <div>Consolidation</div> | <div>Geometry</div> <div>Shape</div> <div>VIEW</div>   |                                                                            | <div>Statistics</div> <div>VIEW</div>                   | <div>Geometry</div> <div>Position and direction</div> <div>VIEW</div> |         |         |

|             | Week 1                                                                     | Week 2 | Week 3 | Week 4                                                                | Week 5 | Week 6                                                                     | Week 7 | Week 8 | Week 9                                                               | Week 10                                                            | Week 11                               | Week 12                                                  |
|-------------|----------------------------------------------------------------------------|--------|--------|-----------------------------------------------------------------------|--------|----------------------------------------------------------------------------|--------|--------|----------------------------------------------------------------------|--------------------------------------------------------------------|---------------------------------------|----------------------------------------------------------|
| Autumn term | <div>Number</div> <div>Place value</div> <div>VIEW</div>                   |        |        | <div>Number</div> <div>Addition and subtraction</div> <div>VIEW</div> |        | <div>Number</div> <div>Multiplication and division A</div> <div>VIEW</div> |        |        | <div>Number</div> <div>Fractions A</div> <div>VIEW</div>             |                                                                    |                                       |                                                          |
| Spring term | <div>Number</div> <div>Multiplication and division B</div> <div>VIEW</div> |        |        | <div>Number</div> <div>Fractions B</div> <div>VIEW</div>              |        | <div>Number</div> <div>Decimals and percentages</div> <div>VIEW</div>      |        |        | <div>Measurement</div> <div>Perimeter and area</div> <div>VIEW</div> |                                                                    | <div>Statistics</div> <div>VIEW</div> |                                                          |
| Summer term | <div>Geometry</div> <div>Shape</div> <div>VIEW</div>                       |        |        | <div>Geometry</div> <div>Position and direction</div> <div>VIEW</div> |        | <div>Number</div> <div>Decimals</div> <div>VIEW</div>                      |        |        | <div>Number</div> <div>Negative numbers</div> <div>VIEW</div>        | <div>Measurement</div> <div>Converting units</div> <div>VIEW</div> |                                       | <div>Measurement</div> <div>Volume</div> <div>VIEW</div> |

|             | Week 1                                               | Week 2 | Week 3                                                                                      | Week 4 | Week 5                                             | Week 6 | Week 7                                                                      | Week 8 | Week 9                                                                   | Week 10 | Week 11                                                        | Week 12 |
|-------------|------------------------------------------------------|--------|---------------------------------------------------------------------------------------------|--------|----------------------------------------------------|--------|-----------------------------------------------------------------------------|--------|--------------------------------------------------------------------------|---------|----------------------------------------------------------------|---------|
| Autumn term | Number<br><b>Place value</b><br><a href="#">VIEW</a> |        | Number<br><b>Addition, subtraction, multiplication and division</b><br><a href="#">VIEW</a> |        |                                                    |        | Number<br><b>Fractions A</b><br><a href="#">VIEW</a>                        |        | Number<br><b>Fractions B</b><br><a href="#">VIEW</a>                     |         | Measurement<br><b>Converting units</b><br><a href="#">VIEW</a> |         |
| Spring term | Number<br><b>Ratio</b><br><a href="#">VIEW</a>       |        | Number<br><b>Algebra</b><br><a href="#">VIEW</a>                                            |        | Number<br><b>Decimals</b><br><a href="#">VIEW</a>  |        | Number<br><b>Fractions decimals and percentages</b><br><a href="#">VIEW</a> |        | Measurement<br><b>Area, perimeter and volume</b><br><a href="#">VIEW</a> |         | <b>Statistics</b><br><a href="#">VIEW</a>                      |         |
| Summer term | Geometry<br><b>Shape</b><br><a href="#">VIEW</a>     |        | Geometry<br><b>Position and direction</b><br><a href="#">VIEW</a>                           |        | Themed projects, consolidation and problem solving |        |                                                                             |        |                                                                          |         |                                                                |         |

### **Assessment**

At Co-op Academy Broadhurst, we are continually assessing our pupils and recording their progress. We see assessment as an integral part of the teaching process and endeavor to make our assessment purposeful, allowing us to match the correct level of work to the needs of the pupils, thus benefiting the pupils and ensuring progress.

### **AfL**

At Co-op Academy Broadhurst, we recognise that AfL lies at the heart of promoting learning and in raising standards of attainment. Assessment is an integral part of teaching and learning and is a continuous process.

Teachers make ongoing assessments of children daily through;

- regular marking of work
- analysing errors and picking up on misconceptions
- asking open questions and listening to answers
- facilitating and listening to discussions
- making observations

These ongoing assessments inform future planning and teaching. Lessons are adapted readily and short term planning evaluated in light of these assessments.

### **Summative Assessments**

Within Co-op Academy Broadhurst, formal assessments (NTS tests) are used at the end of each term in order to support teacher assessment. These are completed by all year groups in KS1 and KS2. Analysis is done at both a quantitative and qualitative level. Information gained is used to set focused curricular targets (what to teach) and also to determine which strategies or methods are particularly effective in respect of specific areas of mathematics (the how and why).

Year 2 and Year 6 complete the statutory tests at the end of the year.

### **Pupil progress**

Teachers track and record the children's progress against the objectives for their year group each term on Otrack and the data is discussed during pupil progress. At the end of each term, all year groups complete NTS assessments which are used to support teacher assessment.

After teachers have recorded their teacher assessment and collected data from the formal assessments, SLT (along with the class teacher) identify which pupils or groups of pupils are not on track to meet their personal targets and take steps to improve their attainment and progress. A class action plan is created, implemented and reviewed at the next pupil progress meeting. More able children will be identified and suitable learning challenges will be provided. Pupils identified with SEND will have work differentiated and be supported by additional adults when appropriate.

### How do we know that our Maths Curriculum is successful?

#### **Pupil Voice**

Groups of children will take part in pupil interviews each term. Judgements will be made on the success of teaching and learning in Maths depending on how they are able to talk about their learning, how it links to previous learning and how they can evaluate their attainment in Maths. They will also have the opportunity to ask questions and answer questions on how the curriculum can be improved further.

#### **Assessment Analysis**

The subject leader will analyse data using O Track. This will be used in conjunction with lesson observations, pupil voice and work scrutiny to make an overall judgement on the impact of Maths at Co-op Academy Broadhurst.