Co-op Academy
Portland

## Maths Curriculum Overview (2021-22)

|  | Autumn 1 Autumn 2 | Spring 1 Spring 2 | Summer 1 Summer 2 |
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| Reception | - We will learn to count to 10 , both forwards and backwards, and how to write the digits. <br> - We will order numbers to 10. <br> - We will be able to say one more or one less than any number up to 10 and learn to estimate the number of objects in a small group. <br> - We will combine two small groups of objects to find a total less than 10. <br> - We will start to subtract numbers from numbers under 10. <br> - We will recognise simple repeating patterns and begin to continue them. <br> - We will begin to compare lengths, masses and capacity of everyday objects. <br> - We will explore 2D and 3D shapes in everyday life and begin to use mathematical vocabulary to describe them. | - We will count to 20 . <br> - We will learn to identify numbers one more or one less than any number up to 20 and order them. <br> - We will learn to write the numbers correctly in digits. We will begin to estimate numbers to 20 . <br> - We will learn how to combine groups of objects to make totals of up to and including 10 by counting on. <br> - We will begin to show subtraction of small numbers by crossing out and counting back. <br> - We will begin to solve simple problems involving number. <br> - We will compare lengths, masses and capacity using everyday language. <br> - We will describe simple patterns and create some of our own. <br> - We will use everyday language to talk about time and money. <br> - We will continue to name 2 D and 3 D shapes. | - We will learn to double numbers less than 10 . We will combine numbers less than 10 to make totals of more than 10 and record this pictorially. <br> - We will subtract using objects and images. <br> - We will make up number stories to represent these calculations and begin to record them pictorially and using number sentences. <br> - We will learn how to halve small numbers by sharing objects and pictures. <br> - We will recognise, create and describe our own repeating patterns. <br> - We will use everyday language to talk about the size, length, mass or capacity of objects and use the language of comparison. <br> - By learning through play, we will begin to understand that money has value; we will begin to use language associated with time. <br> - We will name simple 2 D and 3 D shapes using mathematical language. |




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| Year 3 | Numbers to 1000 We will learn numbers to 1000 and focus on the value of each digit: place value. We will learn how to compose and decompose numbers, compare, order and look for patterns. <br> Addition and Subtraction We will learn to use formal methods of addition and subtraction where regrouping is required. We will learn to solve problems using addition and subtraction, using the bar model as a visual aid. | Multiplication and Division We will learn to multiply and divide by 3,4 and 8 . We will then use this experience of multiplication and division to solve word problems. <br> Further Multiplication and Division <br> We will learn to multiply and divide using both informal and formal methods. We will solve problems such as missing number problems and scaling problems. | Length <br> We will embed our understanding of measuring length in metres and centimetres before moving on to kilometres. We will learn to convert different units of measurement as well as compare different lengths. We will solve in which we will use our mental and procedural skills to solve problems with the aid of the bar model. <br> Mass <br> We will be using scales to measure mass in g and kg , reading scales that have different values for each marking. We will then solve some challenging word problems using the bar model. <br> Volume <br> We will learn to measure volume using millilitres and litres. We will solve a range of problems involving volume and capacity. | Money <br> We will embed our previous learning on recognising different denominations (both notes and coins) and the simple addition and subtraction of money. We will then develop the concepts related to addition and subtraction of money using number bonds as a key method. We will then apply our new knowledge to solve word problems using bar modelling as a key strategy. <br> Time <br> We will tell the time using 'am' and 'pm', telling the time to the minute, using analogue and digital time and telling time by using both the minute and hour hands. We will then learn to use the 24-hour clock and clocks using roman numerals. We will understand how to measure and compare time in seconds, hours and minutes. We will convert units of time and then find a number of days in lengths of time. | Picture Graphs and Bar Graphs <br> we will be learning about how to create and interpret picture graphs and bar graphs. We will create picture graphs where the pictures can represent more than 1 item. Then, we will start to create bar graphs. We will then read and interpret information from bar graphs. <br> Fractions <br> We will begin by counting using fractions and then making number pairs (the fraction equivalent to number bonds) before moving on to adding and subtracting fractions. We will explore equivalent fractions and look at simplifying fractions before comparing fractions with different denominators. We will be finding fractions of whole numbers as part of set and looking at sharing 1 and more than 1 . We will apply our learning to solve increasingly sophisticated word problems. | Lines and Shapes <br> We will be exploring different types of lines in addition to properties of shapes, both 2- and 3-D. We will learn to identify perpendicular and parallel lines, followed by horizontal and vertical lines. We will learn the vocabulary to describe 2- <br> dimensional shapes and learn to draw them before making 3-dimensional shapes using nets and clay. <br> Perimeter of Figures <br> We will learn to measure the total length around a shape to find its perimeter before moving onto grid paper to measure the combined lengths of each side. We will learn to calculate perimeter by adding all of the lengths together. We will learn to solve problems using perimeter. |





