

Number – fractions, decimals, percentages

- Count up and down in hundredths; recognise that hundredths arise when dividing an object by one hundred and dividing tenths by ten
- Recognise and show, using diagrams, families of common equivalent fractions
- Add and subtract fractions with the same denominator
- Solve problems involving increasingly harder fractions to calculate quantities, and fractions to divide quantities, including non-unit fractions where the answer is a whole number
- Recognise and write decimal equivalents of any number of tenths or hundredths
- Recognise and write decimal equivalents to $\frac{1}{4}$, $\frac{1}{2}$ $\frac{3}{4}$
- Round decimals with one decimal place to the nearest whole number
- Compare numbers with the same number of decimal places up to two decimal places
- Find the effect of dividing a one- or two-digit number by 10 and 100, identifying the value of the digits in the answer as ones, tenths and hundredths
- Solve simple measure and money problems involving fractions and decimals to two decimal places

Teaching for Mastery is designed to support a mastery approach to teaching and learning and have been designed to support the aims and objectives of the new National Curriculum.

The overviews:

- Have number at their heart. A large proportion of time is spent reinforcing number to build competency.
- Ensure teachers stay in the required key stages and support the ideal of depth before breadth.
- Ensure students have the opportunity to stay together as they work through the schemes as a whole group.
- Provide plenty of time to build reasoning and problem solving elements into the curriculum.

Concrete – Pictorial – Abstract

As a school we believe that all students, when introduced to a key new concept, should have the opportunity to build competency in this topic by taking this approach.

Concrete – students should have the opportunity to use concrete objects and manipulatives to help them understand what they are doing.

Pictorial – students should then build on this concrete approach by using pictorial representations. These representations can then be used to reason and solve problems.

Abstract – with the foundations firmly laid, students should be able to move to an abstract approach using numbers and key concepts with confidence.



Maths

Progression in Number

Year 4

If you require any examples, please contact the class teacher.

Number and Place Value

- Count in multiples of 6, 7, 9, 25 and 1000
- Count backwards through zero to include negative numbers
- Identify, represent and estimate numbers using different representations
- Read Roman numerals to 100 (I to C) and know that over time, the numeral system changed to include the concept of zero and place value
- Find 1000 more or less than a given number
- Recognise the place value of each digit in a four-digit number (thousands, hundreds, tens and ones)
- Order and compare numbers beyond 1000
- Round any number to the nearest 10, 100 or 1000
- Solve number and practical problems that involve all of the above and with increasingly large positive numbers

Number – additions and subtraction

- Estimate and use inverse operations to check answers to a calculation
- Add and subtract numbers with up to 4 digits using the formal written methods of columnar addition and subtraction where appropriate
- Solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why

Number – multiplication and division

- Recall and use multiplication and division facts for up to 12×12
- Use place value, known and derived facts to multiply and divide mentally, including multiplying by 0 and 1; dividing by 1; multiplying together three numbers
- Recognise and use factor pairs and commutativity in mental calculations
- Multiply two-digit and three-digit numbers by a one-digit number using formal written layout
- Solve problems involving multiplying and adding, including using the distributive law to multiply two digit numbers by one digit, integer scaling problems and harder correspondence problems such as **n** objects and connected to **m** objects