

Year 6 End of Unit Milestones: Autumn

Number and Place Value

By the end of this unit, children will be able to:

- create and identify numbers to 10 000 000
- to write in numerals and words numbers to 10 000 000
- construct and record numbers to 10 000 000
- recognise the value of digits to 10 000 000
- compare and order numbers to 10 000 000 using place value
- round numbers to 10 000 000 to the nearest million, hundred thousand and ten thousand.

Calculations

By the end of this unit, children will be able to:

- use multiple operations and create expressions from a picture
- use the order of operations to solve expressions
- create and solve expressions using the four operations
- multiply numbers by multiples of 10
- use number bonds as a key strategy in multiplication
- multiply 3- and 4-digit numbers by 2-digit numbers with regrouping and renaming
- use both number bonds and the column method as key strategies
- estimate products of multiplying 3- and 4-digit numbers by a 2-digit number
- divide 3-digit numbers by 2-digit numbers using a variety of strategies
- use number bonds, short and long division and bar models to facilitate division by 2-digit numbers
- use number bonds, long and short division as key methods
- divide 3-digit numbers by 2-digit numbers writing remainders as decimals
- use pictorial representations to support word problems
- solve word problems involving multiple operations, including multiplication and division
- find common multiples in real-life situations
- common multiples in tandem with knowledge of time
- use multiplication and division to find largest common factors
- use prime numbers to create other numbers and to explore prime numbers above 100.

Fractions

By the end of this unit, children will be able to:

- use concrete materials to simplify fractions; to recognise equivalence in fractions to $\frac{1}{4}$
- simplify fractions using division and common factors

- represent fractions using concrete materials and pictorial representations
- compare fractions and place them in order from smallest to largest
- compare and order fractions by finding common denominators
- compare and order fractions using common factors.
- add and subtract fractions with different denominators
- add and subtract mixed numbers, including fractions with different denominators
- add and subtract fractions with different denominators
- add and subtract mixed numbers
- multiply fractions using pictorial representations and abstract methods
- determine if the commutative law applies to fractions
- multiply fractions using concrete materials and pictorial representations and use concrete materials to understand and solve the multiplication of fractions
- to simplify equations using pattern blocks
- divide a fraction by a whole number and use pictorial representation to divide whole numbers into fractions
- divide fractions by whole numbers using concrete materials and pictorial representations
- divide fractions when the numerator and divisor are not easily divisible
- divide fractions by a whole number and use pictorial representations to support division.

Decimals

By the end of this unit, children will be able to:

- read and write decimals to thousandths
- use concrete materials to represent decimals
- divide whole numbers by larger whole numbers;
- use Base 10 materials to represent tenths, hundredths and thousandths
- divide whole numbers that give rise to decimals
- calculate decimal fraction equivalents using short division
- convert fractions into decimals using bar models and short and long division
- use short division as the key strategy for turning fractions into decimals
- multiply decimals by whole numbers using partitioning or the worded method to help find the solution
- multiply whole numbers that include a decimal by other whole numbers; to use partitioning and the worded method as key strategies.
- multiply decimals by whole numbers, including regrouping and renaming
- multiply decimals by whole numbers using a variety methods (e.g. mental methods, column method, long multiplication)
- divide decimals using number bonds and number discs as the key strategies
- divide decimals using bar models, number bonds and long division as key strategies, including regrouping and renaming

- multiply decimals by a 2-digit whole number using number discs and the column method
- divide decimals by 2-digit numbers using number bonds and column method.