



## Deepdale Community Primary School

### End of Year: Maths Year 6

#### Number Non-negotiables

Through regular opportunities throughout the year to revisit and apply the high value learning below, by the end of the year the great majority of children will have achieved the following non-negotiables:

**Number - Place value** The great majority of children will be able to:

Identify the value of any digit in numbers up to 10,000,000

Compare and order numbers up to 10,000,000

Round any number to a required degree of accuracy

Use negative numbers in context and calculate intervals across zero

**Solve number problems that involve all of the above**

**Number - Addition and Subtraction** The great majority of children will be able to:

Add and subtract mentally by partitioning multiples of 1000s, 100s and 10's

Partition to add and subtract decimals e.g.  $8.4 + 3.8$ ;  $13.2 - 4.5$

Use number bonds and related facts to add and subtract decimals e.g.  $2.8 + 0.43$  using knowledge of  $280 + 43$ ;  $8.3 - 0.52$  using knowledge of  $830 - 52$

Bridge using decimals to 1 decimal place when adding or subtracting e.g.  $0.7 + 0.56$  as  $0.7 + 0.3 + 0.26$

Add and subtract numbers that contain different numbers of digits using the column method

**Solve multi-step problems deciding which operations to use and why**

**Number - Multiplication and Division** The great majority of children will be able to:

Multiply numbers up to 4-digits by a 2-digit number using the formal written method of long multiplication

Divide numbers up to 4-digits by a 2-digit number using the formal written method of long division

Identify common factors, common multiples and prime factors

Use related facts to multiply and divide e.g.  $8000 \times 4$ ;  $3000 \times 80$ ;  $56\,000 \div 8$ ;  $96\,000 \div 800$

Partition to divide e.g.  $7505 \div 5$  is  $5000 \div 5$   $2500 \div 5$  and  $5 \div 5$

Use their knowledge of the order of operations to carry out calculations (BIDMAS)

**Solve multi-step problems deciding which operations to use and why**

**Number - Fractions** The great majority of children will be able to:

Simplify fractions using common factors

Compare and order fractions

Add and subtract fractions with different denominators and mixed numbers

Multiply simple pairs of proper fractions and write the answer in the simplest form e.g.  $\frac{1}{4} \times \frac{1}{2} = \frac{1}{8}$

Divide proper fractions by whole numbers e.g.  $\frac{1}{3} \div 2 = \frac{1}{6}$

Find fractions of an amount

**Solve problems involving all of the above**

**Number – Decimals and percentages:** The great majority of children will be able to:

Identify the value of each digit in numbers given to three decimal places and link to fractions

Multiply and divide whole numbers and decimals by 10,100,1000 giving answers up to 3 decimal places

Multiply one-digit numbers with up to two decimal places by whole numbers e.g.  $2.43 \times 4$

Use related facts to multiply hundredths by a 1-digit number e.g.  $0.03 \times 7$

Use partitioning to multiply a hundredth by a 1-digit number e.g.  $0.67 \times 4$

Use related facts to divide numbers with up to two decimal places by whole numbers e.g.  $6.93 \div 3$ ;  $8.4 \div 12$

Use related facts to divide 2-digit numbers by tenths. E.g.  $56 \div 0.8$

Use partitioning to double and half numbers with up to 3 decimal places

Calculate simple decimal fraction equivalents e.g. 0.375 as a fraction is $\frac{3}{8}$
Calculate the percentage of a whole number e.g. 45% of 600; 8% of 420
Recall and use equivalences between simple fractions, decimals and percentages
<b>Solve problems involving the above</b>
<b>Number- Algebra:</b> The great majority of children will be able to:
Write and use simple algebraic equations e.g. $a \times 4$ as $4a$
Substitute values into a formula to solve problems
<b>Solve problems involving the above</b>
<b>Number- Ratio and proportion:</b> The great majority of children will be able to:
Solve problems involving the size of two quantities where missing values can be found using multiplication and division facts