Oakgrove School - Curriculum Matrix

Year 5

Place Value 1
- Explore numbers up to 10,000
- Read, write and represent numbers up to 10,000
- Compare and order numbers up to 10,000

Addition and Subtraction 1
- Add together 5-digit and 4-digit numbers
- Subtract a 4-digit number from a 4- or 5-digit number

Multiplication and Division 1
- Multiply a 4-digit number by a 1-digit number
- Multiply a 3-digit number by a 2-digit number
- Multiply a 4-digit number by a 2-digit number

Multiplication and Division 2
- Divide 4-digit numbers by 1-digit numbers no remainders
- Divide 3-digit numbers by 2-digit numbers no remainders
- Divide 4-digit numbers by 2-digit numbers no remainders

Fractions, Decimals and Percentages 1
- Explore the relationship between decimals and fractions
- Explore the relationship between decimals and fractions greater than 1
- Explore the concept of thousandths
- read, represent and write numbers with three decimal places
- Compare and order numbers with up to three decimal places

Fractions, Decimals and Percentages 2
- Round decimals to the nearest whole
- Round decimals to the nearest tenth
- Add decimals within 1
- Subtract decimals within 1

Place value 2
- Round to the nearest 10, 100 and 1000
- Recognise negative numbers on vertical and horizontal number lines
- Read negative numbers from thermometers and temperature graphs
- Calculate differences between negative numbers shown on visual representations

Addition and Subtraction 2
- Use estimation to give approximate results
- Use inverse operations to check results
- Solve multi-step addition and subtraction problems

Fractions, Decimals and Percentages 3
- Find decimal complements to 1
- Add decimals crossing the whole
- Multiply numbers with up to three decimal places by an integer
- Divide numbers with up to 2-decimal places by an integer

Fractions, Decimals and Percentages 4
- Explore equivalent fractions
- Convert improper fractions to mixed numbers
- Convert mixed numbers to improper fractions
- Use fractions and mixed numbers within number sequences

Measures 1
- Represent the side lengths of shapes algebraically
- Measure perimeter
- Calculate perimeter
- Calculate the area of rectangles
- Use algebra to generalise rules for finding area and perimeter
- Calculate the area of compound shapes
- Estimate the area of irregular shapes
- Compare the areas of rectangles and compound shapes

Measures 2
- Convert between unit of time
- Use timetables to retrieve information and solve problems
- Solve problems about the duration of events

Place Value 3
- Read, write and represent numbers up to 100,000
- Round numbers within 100,000 to the nearest 10, 100, 1000 and 10,000
- Count in powers of 10
- Compare and order numbers up to 100,000

Multiplication and Division 3
- Identify multiples of whole numbers
- Identify factors of whole numbers
- Use related facts to calculate other multiples of 10, 100 and 1000
- Multiply and divide mentally from known facts

Fractions, Decimals and Percentages 5
- Add numbers with the same number of decimal places
- Subtract numbers with the same number of decimal places
- Add numbers with a different number of decimal places
- Subtract numbers with a different number of decimal places
- Add and subtract whole numbers and decimal numbers

Fractions, Decimals and Percentages 6
- Compare and order fractions
- Compare and order fractions and mixed numbers
- Count in fractions

Shape 1
- Measure angles in degrees
- Measure angles with a protractor
- Draw lines and angles accurately
- Calculate angles on a straight line
- Calculate angles around a point

Shape 2
- Calculate lengths and angles in shapes
- Recognise regular and irregular polygons
- Find missing side lengths in rectangles and compound rectilinear shapes

Multiplication and Division 2
- Multiply by 10, 100 and 1000
- Divide by 10, 100 and 1000

Fractions, Decimals and Percentages 7
- Describe and complete decimal sequences
- Multiply decimal numbers with up to 3 decimal places by 10, 100 and 1000
- Divide decimal numbers with up to three decimal places by 10, 100 and 1000

Measures 2
- Convert between g and kg and m and km
- Convert between ml and l and mm and m
- Convert between various metric units
- Use given conversions to find metric / imperial values

Fractions, Decimals and Percentages 8
- Add and subtract fractions with denominators which are multiples of each other
- Add and subtract fractions where both denominators need converting
- Add three or more fractions
- Add fractions giving a result larger than 1

Shape 3
- Reason about 3d shapes
- Identify 3d shapes from 2d representations

Shape 4
- Read and plot coordinates in all four quadrants
- Reflect shapes on a coordinate grid
- Reflect shapes in the x- or y-axis
- Translate points and shapes in all four quadrants

Place Value 4
- Use Roman numerals up to 1000
- Identify a term-to-term rule of a sequence

Addition and Subtraction 3
- Use efficient mental methods to solve addition and subtraction problems
- Solve multi-step addition and subtraction problems

Multiplication and Division 5
- Find common factors of two numbers
- Identify prime numbers and recall the prime numbers to 19
- Identify square numbers and recognise the notation for 'squared'
- Identify cube numbers and recognise the notation for 'cubed'

Multiplication and Division 6
- Divide 4-digit numbers by 1-digit numbers with remainders
- Interpret remainders in the context of a question
- Know when to round up or down after division
- Know when to leave a remainder as a fraction or convert to a decimal

Fractions, Decimals and Percentages 9
- Add a proper fraction to a mixed number not crossing the1s
- Add a proper fraction to a mixed number crossing the 1s
- Subtract proper fractions from mixed numbers with no need to convert the whole
- Subtract proper fractions from mixed numbers where the whole needs converting
- Subtract a mixed number from a mixed number with no need to convert the whole
- Subtract a mixed number from a mixed number where the wholes need converting.

Fractions, Decimals and Percentages 10
- Multiply unit fractions by integers
- Multiply fractions by integers
- Calculate a fraction of an amount
- Use fractions as operators

Multiplication and Division 7
- Solve multiplication and division word problems
- Solve calculation problems with calculations on both sides of the = sign.

Fractions, Decimals and Percentages 11
- Explore the concept of percentages
- Represent percentages as fractions and decimals
- Identify equivalent fractions, decimals and percentages
- Know percentage equivalents for half, quarters, fifths, tenths and twenty-fifths

Fractions, Decimals and Percentages 12
- Find 10% of a number
- Find multiples of 10% of a number
- Find 1% of a number

Measures 4
- Explore volume
- Compare volumes
- Estimate capacity

Measures 5
- Solve problems where a unit of measure needs to be converted
- Solve measures scaling problems
- Draw scale diagrams

Data 1
- Read a range of two-way tables