Maths Curriculum Map Summer Term 2024

Heath Mount School

	Summer 1	Summer 2
EYFS	**Comparison:** Compare quantities: more/less most/least. Children make predictions/estimations about the numbers of things **Counting:** Say one number for each item in order to 5. Link numerals and amounts to 5. Count objects and sounds up to 10. Understand relationship between consecutive numbers. Count objects and sounds up to 20 and beyond. Count in groups of 2's 5's and 10's **Cardinality:** Fast recognition of up to 5 objects (subitising). Know that the last number reached when counting a small set of objects tells you how many there are (cardinal principle). Experiment with own symbols and recording. Match numbers to amounts. Show small objects in familiar patterns (subitising). Counting out a smaller amount from a larger amount. Put objects into 5 frames and tens frames (structure of number system). Discuss ways in which children might record quantities. Develop accuracy in counting (cardinal principle) **Composition:** Solve real world mathematical problems with up to 5 numbers. Understand 1 more/1 less than. Explore composition of numbers to 10 e.g. different ways of making 5) How many more will I need if I have 3….. Use Number Stories to develop problem skills e.g. Maisie's Tent, Sharing Stories. Introduce recording methods such as tallying. Addition and subtraction with two single-digit numbers. Prompt children to subitise first when enumerating groups e.g count on from 5 or 10 by showing that we have 5/10 fingers all at once without having to count from 1. Addition and subtraction with one and two-digit numbers. Discuss ways in which children can record methods for solving problems. More complex Problem solving/Maths Stories to provoke discussion and develop strategies/vocabulary e.g. what happens if I share 7 ice-creams between 3 children? Composition of numbers to 10 – begin to recall number pairs. Doubling – begin to recall number pairs. Relationship between doubles and halves	
Year 1	**Number** – can count in 2, 5 & 10. Begin to formalise multiplication using repeated addition and arrays. Solve problems with doubling and halving. Equal or unequal groups and remainders. Recognise and use the +, -. = symbols. Use the number bonds up to 20 along with adding and subtracting multiples of ten. Count forwards and back from a given number up to 100. Recognise place value and compare numbers up to 100. Solve problems involving estimation, ordering and comparison. Recognise and describe odd and even numbers. Use of concrete objects to solve sharing and grouping problems. Solve problems involving missing values in calculations. Through sharing small quantities children begin to understand division. **Geometry –** Name 3D shapes and relate to everyday objects, recognise shapes in different orientations, name the properties of 3D shapes. Describe position, direction and movement including whole, half, quarter and three-quarter turns, use language to describe positions e.g. left, right, up, down	

	Measure – telling the time, O Clock and Half Past. Can draw the hands on a clock. Can measure time in minutes, hours and seconds with equipment. Can sequence events in time. Can describe position and movement. Can comment on capacity using labels such as full, half full etc. Can read units on a scale. Can name 3d shapes and relate to everyday objects. Problem solving with money to find coins relating to a fixed amount. Can solve practical problems and find change **Fractions** – sharing into equal groups, equal or unequal parts of shapes, find fractions of continuous quantities.
Year 2	**Number** – recognise place value and develop fluency in counting. Use pictorial representations and compare amounts. Can find sums and differences. Can use formal written methods. Can use the x symbol and learn 2, 5, 10 times tables, including distributive nature. Begin 3, 4, 8 times tables. Can use the division symbol along with inverse of 2, 5, 10 times table facts. Show that division cannot be done in any order, solve simple problems involving division as sharing Read, write and compare numbers to at least 100, estimating using different representations, develop recognition of patterns within the number system. **Fractions** – Finding halves, quarters and thirds of amounts and shapes. Find equivalence and fractions of continuous quantities. Count in fractions up to 10 on a number line. **Measure** – Can tell and write the time to the nearest 5 mins on analogue and digital clocks. Can compare and order masses and capacities. **Geometry –** properties of 2D and 3D shapes. Rotation and right angles. Know clockwise and anti-clockwise.
Year 3	**Number** – To identify, represent and estimate numbers using different representations. Count in multiples of 4, 8, 50 and 100. Recall and use multiplication and division facts for the 3, 4 and 8 times tables. Read and write numerals to 1,000. Recognise the place value of each digit in a three-digit number. Solve number problems using known number facts, place value, inverse operations and integer scaling problems. **Fractions**: Count in tenths and understand tenths as decimals, represent fractions on a number line, find fractions of an amount. To compare and order fractions, to find equivalent fractions, to add and subtract fractions, to solve problems involving fractions. **Measure** - Months and years, hours in a day, telling the time to 5 minutes. Use the terms 'past' and 'to', use 'morning', 'afternoon', 'a.m.' and 'p.m.' to describe the time of day. Use the 24-hour clock, find the durations of events using both analogue and digital clocks, comparing durations, start and end times, measuring time in seconds. Solve time problems in various contexts. Measure and compare mass, add and subtract amounts of mass. Measure and compare capacity, add and subtract amounts of capacity. **Geometry** – Turns and angles, right angles in shapes: recognise that a right angle is a quarter turn, 2 right angles make a half-turn, 3 right angles make three-quarters of a turn and 4 right angles make a complete turn, compare angles: identify whether an angle is greater than or less than a right angle in shapes and turns, by measuring, comparing and reasoning in practical contexts, draw accurately: measure and draw straight lines accurately in centimetres and millimetres, horizontal and vertical, parallel and

	perpendicular: identify and find parallel and perpendicular lines in a range of practical contexts, recognise, draw and describe 2-D and 3-D shapes, make 3-D shapes **Statistics –** Interpret data using bar charts, pictograms and tables.
Year 4	**Number** – To read Roman Numerals to 100. Order and compare numbers beyond 1,000. Find 1,000 more or less than a given number. Count backwards through zero into negative numbers. To practice all times-tables to 12 using both multiplication and division facts, knowing they are the inverse of each other. Solve problems involving adding and multiplying using the distributive law, solve integer scaling problems **Fractions –** to compare and order fractions. To add and subtract fractions with the same denominator. To add and subtract fractions with denominators that are multiples. To write, compare, order decimals. To round decimals to 1 and 2 dp. **Measure –** Money – Using decimal notation with pounds and pence, ordering amounts of money, estimating the total of two amounts. Time – To tell time to the minute, use am, pm and 24 hour clock. To convert analogue to digital in 12 and 24 hour. To convert units of time from seconds to minutes to hours. To know how many days in a week, weeks in a year, weeks in a month and months in a year, how many and which months are in each season. To convert between different units of measurement. **Statistics -** To interpret and represent data on different charts including line graphs. **Geometry** – Identify whether angles are greater/less than a right angle, compare and classify geometric shapes including quadrilaterals and triangles, identify lines of symmetry in 2D shapes presented in different orientations. To describe movements between positions as translations of a given unit to the left/right and up/down. Describe positions on a 2D grid as co-ordinates in the first quadrant.

Year 5	**Number/Operations** – To multiply numbers up to 4 digits by 1 and 2 digit numbers using the formal written method. To use the long multiplication method to multiply by two-digit numbers. Divide numbers up to 4 digits by 1, then 2 digit numbers using the formal written method. Divide numbers up to 4 digits and interpret remainders appropriately for the context. Solve problems involving multiplication and division using knowledge of factors, multiples, squares and cubes. **Measures** – Compare and estimate volume. Compare and estimate capacity. Convert units of measure including imperial units. **Geometry –** Know how to use a protractor, measure angles using a protractor, draw lines and angles accurately using a protractor, calculate lengths and angles in shapes. Measure and calculate the perimeter of composite rectilinear shapes in cm and m. Calculate and compare the area of a rectangle using standard units. Convert between different units of metric measure. Co-ordinates – reflect shapes using co-ordinates in all 4 quadrants, translate shapes using co-ordinates in all 4 quadrants, identify lines of symmetry. **Statistics** – Can read scales using positive and negative integers. **Fractions** - Recap as part of retrieval activities: Compare and order fractions, write one quantity as a fraction of another, convert between units of time in fractions and decimals. Add and subtract fractions with different denominators and mixed numbers using the concept of equivalent fractions.
Year 6	**Number/Operations** – Can use four operations with fractions, decimals, negatives and mixed numbers. Can use the order of operations (BIDMAS) including powers. Can use a calculator to complete expressions. Can use mental adjustment and understand errors. Can calculate percentages of amounts with and without a calculator **Fractions** - Recap as part of retrieval activities: Compare and order fractions, write one quantity as a fraction of another, convert between units of time in fractions and decimals. Add and subtract fractions with different denominators and mixed numbers using the concept of equivalent fractions. **Geometry** – Can use angle properties to find missing values. Can construct and measure angles accurately with a protractor. Can use parallel lines with associated properties. Can complete angle problems with both regular and irregular polygons. Can distinguish between area, perimeter and volume calculating values for rectilinear 2d and 3d shapes. Illustrate and name parts of a circle including radius, diameter and circumference and know that the diameter is twice the radius. Draw and translate simple shapes on the co-ordinate plane and reflect them in the axes, describe positions on the full-co-ordinate grid. **Measure** - Can convert between metric units of length and area. Can convert between different units of time. Can convert between different metric and imperial units. Recap: Translate, reflect shapes using all 4 quadrants. **Algebra** – Simplify expressions using +, -, ÷ and x with letters, collect like terms, expand a single bracket then a double bracket and simplify sing FOIL. Create an expression, factorise an expression including a common algebraic variable. **Projects: Maths in the Real World. This will include guest speakers from banking and a small local business. Children will have the opportunity to take part in mini projects that help them understand how their Maths learning applies to real life situations, experiences and their future.**

	Assessment Week 5
Year 7	**Number and Algebra** – Can use four operations with integers, decimals, and negatives. Can use the order of operations (BIDMAS). Can use a calculator to complete expressions. Can compare and order fractions, decimals, and percentages. Can write one quantity as a fraction of another. Can use four operations with fractions. Can find fractions of amounts with and without a calculator. Can calculate percentages of amounts with and without a calculator. Can find percentage change, with and without a calculator. Can find the nth term of linear equations and pictorial sequences. Can simplify algebraic expressions using +, -, ÷ and x with letters, collect like terms. Can substitute values into expressions, using BIDMAS as appropriate. Can form and solve an equation from worded problems. Can expand and factorise expressions including a common algebraic variable. **Geometry, Probability and Statistics** – Can identify similar shapes from angles and sides. Can use polygon properties to find missing values including the use of parallel lines with associated properties to find missing values. Can complete angle problems with both regular and irregular polygons. Can calculate the area and perimeter of rectilinear shapes including parallelograms, rhombi, trapezia and triangles. Can distinguish between area, perimeter, surface area and volume and find the volume and surface area of cuboids. Can interpret data and find the mean, median, mode and range of a data set. Can find the possible outcomes and the probability of events. **Graphs, Ratio, Rates of Change** - Can convert between metric units of length and area. Can convert between different units of time. Can convert between different metric and imperial units. Can divide into ratio and apply knowledge to worded problems. Can understand, use and apply the language of ratios and can discuss proportions and apply their relationships to help find unknowns. Can apply knowledge of the Speed, Distance, Time formulae. **Project: Children will have the opportunity apply their learning to real life situations, experiences and their future.** Assessment Week 6

Year 8	**Number and Algebra** – Can use four operations with integers, decimals, and negatives. Can use the order of operations (BIDMAS). Can use a calculator to complete expressions. Can compare and order fractions, decimals, and percentages. Can write one quantity as a fraction of another. Can use four operations with fractions. Can find fractions of amounts with and without a calculator. Can calculate percentages of amounts with and without a calculator. Can find percentage change, with and without a calculator. Can simplify algebraic expressions using +, -, ÷ and x with letters, collect like terms including those with indices. Can substitute values into expressions, using BIDMAS as appropriate. Can form and solve an equation from worded problems. Can rearrange formula where required. Can expand and factorise expressions including a common algebraic variable, including quadratics. Can find the nth term of linear equations and pictorial sequences. **Geometry, Probability and Statistics** – Can use polygon properties to find missing values including the use of parallel lines with associated properties to find missing values. Can complete angle problems with both regular and irregular polygons. Can calculate the area and perimeter of rectilinear shapes including parallelograms, rhombi, trapezia and triangles. Can distinguish between area, perimeter, surface area and volume and find the volume and surface area of cuboids. Can translate, rotate, reflect and enlarge shapes including describing transformations. Can interpret data and find the mean, median, mode and range of a data set. Can find the possible outcomes and the probability of events. **Graphs, Ratio, Rates of Change** - Can convert between metric units of length and area. Can convert between different units of time. Can convert between different metric and imperial units. Can divide into ratio and apply knowledge to worded problems. Can apply knowledge of the Speed, Distance, Time formulae and can interpret a travel graph. Can plot linear functions on given axes. CE WEEK – w/c JUNE 3RD