

Maths Topic List – Summer Term

	YEAR	TOPIC NAME	CURRICULUM COVERAGE	BIG FINISH What children need to be able to do by the end
EYFS	RECEPTION	Geometry	Patterns using colour and shapes	Making simple patterns and exploring more complex patterns
		Addition and subtraction	Count on and back	Adding by counting on
		Number and place Value	Numbers to 20	Counting to 20
		Multiplication and Division	Numerical patterns	Doubling numbers
		Measurement	Measure length, height and distance	Measurement
KEY STAGE 1	YEAR 1	Multiplication and Division	Counting in 2's, 5's and 10's.	Multiplication and Division
		Fractions	Find a half Find a quarter	- Recognise, find and name a half as one of two equal parts of an object, shape or quantity. - Recognise, find and name as one of two equal parts of an object, shape or quantity.
		Position and Direction	Describe turns Describe position	Describe position, direction and movement, including whole, half, quarter and three quarter turns.
		Place Value (to 100)	Counting to 100 Partitioning numbers Comparing numbers Ordering numbers One more, one less	- Count to and across 100, forwards and backwards, starting from any given number. - Read and write numbers to 100 - Identify one more and one less using objects and pictorials.
		Money	Recognising coins and notes Counting in coins	Recognise and know the value of different denominations of coins and notes.
		Time	Use before and after to describe, sort and order events. Months of the year and special dates Time to the hour and half hour on a clock face Writing time using stopwatches and timers Compare time using faster, slower, earlier and later	- Sequence events in chronological order using correct language. - Recognise and use language relating to dates, including days of the week, months and years. - Tell the time to the hour and half hour using a clock. - Draw the hands on a clock to tell a time.

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LOWER KEY STAGE 1	YEAR 2	Geometry: Position and direction	Use before and after to describe, sort and order events. Months of the year and special dates Time to the hour and half hour on a clock face Writing time using stopwatches and timers Compare time using faster, slower, earlier and later	- Sequence events in chronological order using correct language. - Recognise and use language relating to dates, including days of the week, months and years. - Tell the time to the hour and half hour using a clock. - Draw the hands on a clock to tell a time.
		Your own problem solving activities	Problems of the day/month	Problems of the day/month
		Time	Telling time to the hour, half past, quarter past and quarter to. Telling time to 5 minute intervals. Recognise that there are 24 hours in a day and 60 minutes in an hour. Find the start and end of an event, work out how long an event is and compare events that are shorter and longer.	- Tell and write the time to five minutes, including quarter past/to the hour and draw the hands on a clock face to show these times. - Know the number of minutes in an hour and the number of hours in a day. - Compare and sequence intervals of time.
		Mass, Capacity and Temperature	Compare mass and volume of different objects. Investigate mass using grams and kilograms. Investigate volume using millilitres and litres. Introduce temperature using thermometers and units degrees Centigrade.	- Choose and use appropriate standard units to estimate and measure length/height in any direction (m/cm); mass (kg/g); temperature (°C); capacity (litres/ml) to the nearest appropriate unit, using rulers, scales, thermometers and measuring vessels. - Compare and order lengths, mass, volume/capacity and record the results using >, < and =.

LOWER KEY STAGE 2

YEAR 3

YEAR	TOPIC NAME	CURRICULUM COVERAGE	BIG FINISH What children need to be able to do by the end
	Fractions	Investigate equivalent fractions physical objects and pictorials. Compare fractions with the same denominator. Order fractions with the same denominator. Add and subtraction fractions using practical equipment and pictorial representations where the total is less than one.	- Recognise and show, using diagrams, equivalent fractions with small denominators. - Compare and order unit fractions, and fractions with the same denominators. - Add and subtract fractions with the same denominator within one whole for example $\frac{1}{4} + \frac{1}{4} = \frac{1}{2}$ - Solve problems that involve all of the above.
	Measurement: Time	Months and years Hours in a day Telling time to 5 minutes Telling the time to the minute Using a.m. and p.m. Telling time on a 24 hour clock Finding the duration of events and comparing them Start and end times of events Measuring time in seconds using stopwatches	- Tell and write the time from an analogue clock, including using Roman numerals from I to XII and 12-hour and 24-hour clocks. - Estimate and read time with increasing accuracy to the nearest minute. - Record and compare time in terms of seconds, minutes and hours. - Use vocabulary such as o'clock, a.m./p.m., morning, afternoon, noon and midnight. - Know the number of seconds in a minute and the number of days in each month, year and leap year. Compare durations of events [for example to calculate the time taken by particular events or tasks].
	Properties of shape	Using angles as a measure of a turn. Right angles in shapes. Compare angles with right angles. Draw straight line accurately using centimetres and millimetres. Identify horizontal and vertical lines. Parallel and Perpendicular lines. Recognise, describe and draw 2-D shapes. Recognise, describe and construct 3-D shapes.	- Recognise angles as a property of shape or a description of a turn. - Identify right angles, recognise that two right angles make a half-turn, three make three quarters of a turn and four a complete turn; identify whether angles are greater than or less than a right angle. Identify horizontal and vertical lines and pairs of perpendicular and parallel lines. - Draw 2-D shapes and make 3-D shapes using modelling materials. - Recognise 3-D shapes in different orientations and describe them.
	Mass and capacity	Read scales to measure mass in kilograms or grams. Measure the mass of objects and record them in kilograms and grams. Compare mass using kilograms and grams. Add and subtract mass. Measure capacity using litres or millilitres. Measure capacity using litres, millilitres and scales. Compare capacities. Add and subtract capacities.	Measure, compare, add and subtract: lengths (m/cm/mm); mass (kg/g); volume/capacity (l/ml).

LOWER KEY STAGE 2

YEAR 4

YEAR	TOPIC NAME	CURRICULUM COVERAGE	BIG FINISH What children need to be able to do by the end
YEAR 4	Number: Decimals	Make a whole from tenths and hundredths. Write, compare and order decimals. Round decimals up with 1 decimal place to the nearest whole number. Write halves and quarters as fractions and decimals.	- Compare numbers with the same number of decimal places up to two decimal places. - Round decimals with one decimal place to the nearest whole number. Recognise and write decimal equivalents to $\frac{1}{4}$, $\frac{1}{2}$ and - Understand the effect of dividing a one or two digit number by 10 or 100. Identifying the value of the digits in the answer as ones, tenths and hundredths
	Money	Develop understanding of pounds and pence (introducing decimal notation). Ordering money that is in the same format. Rounding money to the nearest pound. Solve simple money problems using portioning, converting and recombining to add money.	- Estimate, compare and calculate different measures, including money in pounds and pence. - Solve simple measure and money problems involving fractions and decimals to two decimal places
	Time	Tell time using hours, minutes and seconds (Recap from Year 3). Recap the concept of a year, month, week and day from Year 3. Convert between analogue and digital times using a format up to 12 hours. Convert between analogue and digital times using 24 hour clock.	- Read, write and convert time between analogue and digital 12- and 24-hour clocks. - Solve problems involving converting from hours to minutes; minutes to seconds; years to months; weeks to days.
	Statistics	Interpret charts Solve comparison, sum and difference using discrete data. Introducing line graphs using time. Solve comparison, sum and difference problems using a line graph.	- Interpret and present discrete and continuous data using appropriate graphical methods, including bar charts and time graphs. - Solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and other graphs.
	Properties of shape	Identify obtuse and acute angles by comparing them with a right angle. Compare and order angles. Naming triangles and recognising their angles. Name quadrilaterals and describe their properties. Find and identify lines of symmetry within 2-D shapes. Use knowledge of symmetry to complete 2-D shapes and patterns.	- Identify acute and obtuse angles and compare and order angles up to two right angles by size. - Compare and classify geometric shapes, including quadrilaterals and triangles, based on the properties and sizes. - Identify lines of symmetry in 2-D shapes presented in different orientations. - Complete a simple symmetric figure with respect to a specific line of symmetry.
	Position and direction	Describe position using coordinates. Develop understanding of coordinates by plotting points. Move shapes and point on a grid following specific directions. Describe movement of shapes and point on a grid.	- Describe positions on a 2-D grid as coordinates in the first quadrant. - Plot specified points and draw sides to complete a given polygon. - Describe movements between positions as translations of a given unit to the left/right and up/down.

UPPER KEY STAGE 2

YEAR 5

YEAR	TOPIC NAME	CURRICULUM COVERAGE	BIG FINISH What children need to be able to do by the end
	Number: Decimals	Adding and subtracting decimals within 1 Complements to 1 Adding decimals – crossing the whole Adding decimals with the same number of decimal places Subtracting decimals with the same number of decimal places Adding decimals with a different number of decimal places Subtracting decimals with a different number of decimal places Adding and subtracting wholes and decimals Decimal sequences Multiplying and dividing decimals by 10, 100 and 1,000	- Recognise and write decimal equivalents of any number of tenths or hundredths. - Find the effect of dividing a one or two digit number by 10 or 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. - Convert between different units of measure [for example, kilometre to metre.
	Properties of shape	Measuring angles in degrees Measuring with a protractor with angles no bigger than obtuse. Drawing lines and angles accurately Calculating angles on a straight line Calculating angles around a point Calculating lengths and angles in shapes Regular and irregular polygons Reasoning about 3-D shapes	- Identify 3-D shapes, including cubes and other cuboids, from 2-D representations. - Use the properties of rectangles to deduce related facts and find missing lengths and angles. - Distinguish between regular and irregular polygons based on reasoning about equal sides and angles. - Know angles are measured in degrees: estimate and compare acute, obtuse and reflex angles. - Draw given angles, and measure them in degrees. - Identify: angles at a point and one whole turn (total 360°), angles at a point on a straight line and ½ a turn (total 180°) other multiples of 90°.
	Position and direction	Position in the first quadrant using coordinates. Reflection across a parallel line and in the first quadrant. Reflection with change of coordinates. Translation shapes on a grid. Translation with coordinates and describe translations of coordinates.	Identify, describe and represent the position of a shape following a reflection or translation, using the appropriate language, and know that the shape has not changed.
	Converting units	Kilograms and kilometres Milligrams and millilitres Convert between different units of lengths. Imperial units (inches, pounds and pints) Converting units of time Use timetables to retrieve information.	- Convert between different units of metric measure [for example, km and m; cm and m; cm and mm; g and kg; l and ml]. - Understand and use approximate equivalences between metric units and common imperial units such as inches, pounds and pints. - Solve problems involving converting between units of time.
	Volume	What is volume? Compare volume. Estimate volume. Estimate capacity.	- Estimate volume (for example using 1cm³ blocks to build cuboids (including cubes)) and capacity (for example, using water). - Use all four operations to solve problems involving measure

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UPPER KEY STAGE 2	YEAR 6	Geometry: Properties of shape	Measure with a protractor Introduce angles Calculate angles Vertically opposite angles Angles in a triangle Angles in a triangle – special cases Angles in a triangle – missing angles Angles in special quadrilaterals Angles in regular polygons Draw shapes accurately Draw nets of 3-D shapes	• Draw 2-D shapes using given dimensions and angles. • Compare and classify geometric shapes based on their properties and sizes and find unknown angles in any triangles, quadrilaterals and regular polygons. • Recognise angles where they meet at a point, are on a straight line, or are vertically opposite, and find missing angles.
		Your own problem solving	Problems of the day/month	• Create their own problem solving activities.
		Statistics	Read and interpret line graphs Draw line graphs Use line graphs to solve problems Circles Read and interpret pie charts Pie charts with percentages Draw pie charts The mean	• Illustrate and name parts of circles, including radius, diameter and circumference and know that the diameter is twice the radius. • Interpret and construct pie charts and line graphs and use these to solve problems. • Calculate the mean as an average
		Your own investigations	Problems of the day/month	• Create their own problem solving activities.