KS2 Maths medium term plan Autumn 2

Unit	Year 3	
Time (2 weeks)	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, am/pm, 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	
Small steps	Roman numerals to 12 Tell the time to 5 minutes Tell the time to the minute Read time on a digital clock Use am and pm Years, months and days Days and hours	Hours and minutes – use start and end times Hours and minutes - use durations Minutes and seconds Units of time Solve problems with time
Vocabulary and resources	Roman numeral, hour hand, minute hand, past, to, digital, analogue, duration, year, month, day, hour, minute, second, unit	Clocks, number lines, calendars
Shape (2 weeks)	draw 2-D shapes and make 3-D shapes using modelling materials; recognise 3-D shapes in different orientations and describe them identify horizontal and vertical lines and pairs of perpendicular and parallel lines recognise angles as a property of shape or a description of a turn identify right angles, recognise that 2 right angles make a half-turn, 3 make three-quarters of a turn and 4 a complete turn; identify whether angles are greater than or less than a right angle	
Small steps	Turns and angles Right angles Compare angles Measure and draw accurately Horizontal and vertical	Parallel and perpendicular Recognise and describe 2-D shapes Draw polygons Recognise and describe 3-D shapes Make 3-D shapes
Vocabulary and resources	Turn, angle, direction, clockwise, anti-clockwise, quarter, half, three quarters, right angle, acute, obtuse, accurate, cm, mm, horizontal, vertical, parallel, perpendicular, properties, lines of symmetry, polygon, 3d, 2d, vertices, edge, face	2d shapes, 3d shapes, geoboards, cubes
Money (1 week)	add and subtract amounts of money to give change, using both £ and p in practical contexts	
Small steps	Pounds and pence Convert pounds and pence Add money Subtract money Find change	
Vocabulary and resources	Pounds, pence, convert, add, altogether, estimate, subtract, change, partition	Money, blank number lines

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Unit	Year 4	
Time (2 weeks)	read, write and convert time between analogue and digital 12- and 24-hour clocks convert between different units of measure [for example, kilometre to metre; hour to minute] solve problems involving converting from hours to minutes, minutes to seconds, years to months, weeks to days	
Small steps	Years, months, weeks and days Hours, minutes and seconds Convert between analogue and digital times Convert to the 24-hour clock Convert from the 24-hour clock	
Vocabulary and resources	Roman numeral, hour hand, minute hand, past, to, digital, analogue, duration, year, month, day, hour, minute, second, unit, convert, compare, 24 hour clock,	Clocks, number lines, calendars
Shape (2 weeks)	compare and classify geometric shapes, including quadrilaterals and triangles, based on their 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 identify acute and obtuse angles and compare and order angles up to 2 right angles by size	
Small steps	Understand angles as turns Identify angles Compare and order angles Triangles	Quadrilaterals Polygons Lines of symmetry Complete a symmetric figure
Vocabulary and resources	Turn, angle, direction, clockwise, anti-clockwise, quarter, half, three quarters, right angle, acute, obtuse, accurate, cm, mm, horizontal, vertical, parallel, perpendicular, properties, lines of symmetry, polygon, 3d, 2d, vertices, edge, face, triangle-equilateral, isosceles, scalene, quadrilateral-trapezium, rhombus, kite, parallelogram, compare, order, equal	2d shapes, 3d shapes, geoboards, cubes
Money (1 week)	estimate, compare and calculate different measures, including money in pounds and pence	
Small steps	Write money using decimals Convert between pounds and pence Compare amounts of money Estimate with money Calculate with money Solve problems with money	
Vocabulary and resources	Pounds, pence, convert, add, altogether, estimate, subtract, change, partition, decimal, tenths, hundredths, compare, ascending, descending, approximately	Money, blank number lines

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Unit	Year 5	
FDP (2 weeks)	recognise the per cent symbol (%) and understand that per cent relates to 'number of parts per 100', and write percentages as a fraction with denominator 100, and as a decimal fraction	
Small steps	Round to the nearest whole number Round to 1 decimal place Understand percentages	Percentages as fractions Percentages as decimals Equivalent fractions, decimals and percentages
Vocabulary and resources	Decimal point, tenth, hundredth, thousandth, equivalent, order, compare, decimal place, percent, partition, value, round,	Place value charts, place value counters, hundred squares,
Shape (2 weeks)	identify 3-D shapes, including cubes and other cuboids, from 2-D representations 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 1 whole turn (total 360°) angles at a point on a straight line and half a turn (total 180°) other multiples of 90° use the properties of rectangles to deduce related facts and find missing lengths and angles	
Small steps	Understand and use degrees Classify angles Estimate angles Measure angles up to 180° Draw lines and angles accurately	Calculate angles around a point Calculate angles on a straight line Lengths and angles in shapes Regular and irregular polygons 3-D shapes
Vocabulary and resources	Turn, angle, direction, clockwise, anti-clockwise, quarter, half, three quarters, right angle, degrees, acute, obtuse, accurate, cm, mm, horizontal, vertical, parallel, perpendicular, properties, lines of symmetry, polygon, 3d, 2d, vertices, edge, face, triangle-equilateral, isosceles, scalene, quadrilateral-trapezium, rhombus, kite, parallelogram, compare, order, equal	2d shapes, 3d shapes, geoboards, cubes, protractor,
Time (1 week)	convert between different units of metric measure [e.g. 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 ins, lbs and pts	
Small steps	Convert units of time Calculate with timetables	
Vocabulary and resources	Roman numeral, hour hand, minute hand, past, to, digital, analogue, duration, year, month, day, hour, minute, second, unit, convert, compare, 24 hour clock, timetable	Clocks, number lines, calendars

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Unit	Year 6	
Ratio (2 weeks)	solve problems involving the relative sizes of 2 quantities where missing values can be found by using integer multiplication and division facts solve problems involving the calculation of percentages [for example, of measures and such as 15% of 360] and the use of percentages for comparison solve problems involving similar shapes where the scale factor is known or can be found solve problems involving unequal sharing and grouping using knowledge of fractions and multiples	
Small steps	Add or multiply? Use ratio language Introduction to the ratio symbol Ratio and fractions Scale drawing	Use scale factors Similar shapes Ratio problems Proportion problems Recipes
Vocabulary and resources	Additive, multiplicative, sequence, ratio, fractions, scale, represent, scale factor, similar, proportion	Objects, counters
Shape (2 weeks)	draw 2-D shapes using given dimensions and angles recognise, describe and build simple 3-D shapes, including making nets compare and classify geometric shapes based on their properties and sizes and find unknown angles in any triangles, quadrilaterals, and regular polygons illustrate and name parts of circles, including radius, diameter and circumference and know that the diameter is twice the radius recognise angles where they meet at a point, are on a straight line, or are vertically opposite, and find missing angles	
Small steps	Measure and classify angles Calculate angles Vertically opposite angles Angles in a triangle Angles in a triangle – special cases Angles in a triangle – missing angles	Angles in a quadrilateral Angles in polygons Circles Draw shapes accurately Nets of 3-D shapes
Vocabulary and resources	Turn, angle, direction, clockwise, anti-clockwise, quarter, half, three quarters, right angle, degrees, acute, obtuse, accurate, cm, mm, horizontal, vertical, parallel, perpendicular, properties, lines of symmetry, polygon, 3d, 2d, vertices, edge, face, triangle-equilateral, isosceles, scalene, quadrilateral-trapezium, rhombus, kite, parallelogram, compare, order, equal, net, circle, circumference, radius, diameter, centre	2d shapes, 3d shapes, geoboards, cubes, protractor,
Algebra (1 week)	use simple formulae generate and describe linear number sequences express missing number problems algebraically find pairs of numbers that satisfy an equation with 2 unknowns enumerate possibilities of combinations of 2 variables	
Small steps	1-step function machines 2-step function machines Form expressions Substitution Formulae	
Vocabulary and resources	Input, output, function, inverse, represent, expression, substitution, formula	Objects, function machines