Mathletics

England Key Stage 2

Skill Quests

Key Stage 2

May, 2022

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England Program of Studies

Skill Quests

May 2022

Year 3

1 Number

1.1 Number and place value

Outcome	Quests	Content
Count from 0 in multiples of 4, 8, 50 and 100; find 10 or 100 more or less than a given number	Count in multiples of 4, 8, 50 and 100	Counting in multiples of 4
Recognise the place value of each digit in a 3-digit number (100s, 10s, 1s)	Recognise place value of 3-digit numbers	Recognising place value of 3-digit numbers
Compare and order numbers up to 1,000	Compare and order numbers up to 1,000	Comparing numbers up to 1,000
Identify, represent and estimate numbers using different representations	Identify and represent numbers	Identifying 3-digit numbers within 1,000
Read and write numbers up to 1,000 in numerals and in words	Read and write numbers up to 1,000	Reading and writing numbers up to 1,000

1.2 Addition and subtraction

Outcome	Quests	Content
Add and subtract numbers mentally, including: a three-digit number and 1s, a three-digit number and 10s, a three-digit number and 100s	Add with 3-digit numbers	Adding a 3-digit number and 1s using models
Add and subtract numbers with up to 3 digits, using formal written methods of columnar addition and subtraction	Formal addition up to 3 digits	Adding numbers up to 3 digits (no exchanging)
Estimate the answer to a calculation and use inverse operations to check answers	Estimate calculations	Recognising and using inverse relationship
Solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction	Solve problems: add and subtract	Problem solving with addition and subtraction

1.3 Multiplication and division

Outcome	Quests	Content
Recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables	Multiply by 3	Exploring multiplication by 3
Write and calculate mathematical statements for multiplication and division using the multiplication tables that they know, including for two-digit numbers times one-digit numbers, using mental and progressing to formal written methods	Multiply 2 digits by 1 digit	Multiplying 2 digits by 1 digit
Solve problems, including missing number problems, involving multiplication and division, including positive integer scaling problems and correspondence problems in which n objects are connected to m objects	Solve problems: multiplication/division	Solving correspondence problems

1.4 Fractions

Outcome	Quests	Content
Count up and down in tenths; recognise that tenths arise from dividing an object into 10 equal parts and in dividing one-digit numbers or quantities by 10	Count up and down in tenths	Introducing tenths
Recognise, find and write fractions of a discrete set of objects: unit fractions and non-unit fractions with small denominators	Recognise, find and write fractions	Recognising, finding and writing fractions
Recognise and use fractions as numbers: unit fractions and non-unit fractions with small denominators	Recognise and use fractions as numbers	Recognising and using fractions as numbers
Recognise and show, using diagrams, equivalent fractions with small denominators	Recognise and show equivalent fractions	Recognise fractions equivalent to 1
Add and subtract fractions with the same denominator within one whole [for example, 5/7 + 1/7 = 6/7]	Add fractions up to 1 whole	Adding unit fractions with the same denominator
Compare and order unit fractions, and fractions with the same denominators	Compare and order simple fractions	Comparing and ordering fractions
Solve problems that involve all of the above	Solve problems: fractions	Estimating/adding to find fractions of sets

2 Measurement

2.1 Measurement

Outcome	Quests	Content
Measure, compare, add and subtract: lengths (m/cm/mm); mass (kg/g); volume/capacity (l/ml)	Length: measure, compare, add & subtract	Introducing formal units for millimetres
Measure the perimeter of simple 2-D shapes	Measure perimeter of 2-D shapes	Measuring perimeter in cm
Add and subtract amounts of money to give change, using both £ and p in practical contexts	Add and subtract amounts of money	Adding and subtracting amounts of money
Tell and write the time from an analogue clock, including using Roman numerals from I to XII, and 12-hour and 24-hour clocks	Tell the time: analogue clock	Telling the time to 5 minutes on analogue 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	Estimate and read time	Comparing and ordering time in seconds and minutes
Know the number of seconds in a minute and the number of days in each month, year and leap year	Relationships between units of time	Recalling relationships between units of time
Compare durations of events [for example, to calculate the time taken by particular events or tasks]	Compare durations of events	Comparing durations in hours, minutes and seconds

3 Geometry

3.1 Properties of shape

Outcome	Quests	Content
Draw 2-D shapes and make 3-D shapes using modelling materials; recognise 3-D shapes in different orientations and describe them	Compare and describe 2-D shapes	Comparing and describing 2-D shapes
Recognise angles as a property of shape or a description of a turn	Recognise turns and angles	Recognising turns and angles
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	Identify right angles	Identifying right angles in shapes
Identify horizontal and vertical lines and pairs of perpendicular and parallel lines	Identify horizontal and vertical lines	Identifying horizontal and vertical lines

4 Statistics

4.1 Statistics

Outcome	Quests	Content
Interpret and present data using bar charts, pictograms and tables	Interpret and present data: bar charts	Interpreting data in bar charts
Solve one-step and two-step questions [for example 'How many more?' and 'How many fewer?] using information presented in scaled bar charts and pictograms and tables	Solve problems related to data displays	Using data in tables and pictograms

Year 4

1 Number

1.1 Number and place value

Outcome	Quests	Content
Count in multiples of 6, 7, 9, 25 and 1,000	Count in multiples (6, 7, 9, 25 & 1,000)	Counting in multiples of 6
Find 1,000 more or less than a given number	Find 1,000 more/less than a given number	Finding 1,000 more or less than a given number
Count backwards through zero to include negative numbers	Count using negative numbers	Counting using negative numbers
Recognise the place value of each digit in a four-digit number (thousands, hundreds, tens, and ones)	Recognise place value in 4-digit numbers	Recognising the place value of 4-digit numbers
Order and compare numbers beyond 1,000	Order and compare numbers beyond 1,000	Ordering numbers beyond 1,000
Identify, represent and estimate numbers using different representations	Identify and represent numbers	Identifying up to 4-digit numbers
Round any number to the nearest 10, 100 or 1,000	Round numbers	Rounding numbers to the nearest 10, 100 or 1,000
Read Roman numerals to 100 (I to C) and know that over time, the numeral system changed to include the concept of zero and place value	Read Roman numerals to 100	Reading Roman numerals to 100

1.2 Addition and subtraction

Outcome	Quests	Content
Add and subtract numbers with up to 4 digits using the formal written methods of columnar addition and subtraction where appropriate	Add and subtract multiples of 100	Adding and subtracting multiples of 100
Estimate and use inverse operations to check answers to a calculation	Estimate & use inverse operations	Estimating and using inverse operations
Solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why	Solve 2-step problems in context	Solving addition and subtraction two-step problems

1.3 Multiplication and division

Outcome	Quests	Content
Recall multiplication and division facts for multiplication tables up to 12 × 12	Explore multiplication by 6	Exploring multiplication by 6
Use place value, known and derived facts to multiply and divide mentally, including: multiplying by 0 and 1; dividing by 1; multiplying together three numbers	Use place value to multiply and divide	Multiplying by 1 and 0
Recognise and use factor pairs and commutativity in mental calculations	Find and use factor pairs	Finding and using factor pairs
Multiply two-digit and three-digit numbers by a one-digit number using formal written layout	Multiply two-digit & three-digit numbers	Multiplying 2- and 3-digit numbers by 1-digit

1.4 Fractions including decimals

Outcome	Quests	Content
Recognise and show, using diagrams, families of common equivalent fractions	Recognise & show equivalent fractions	Investigating common equivalent fractions
Count up and down in hundredths; recognise that hundredths arise when dividing an object by 100 and dividing tenths by 10	Count in hundredths	Counting in hundredths
Solve problems involving increasingly harder fractions to calculate quantities, and fractions to divide quantities, including non-unit fractions where the answer is a whole number	Solve problems: fractions	Making a whole
Add and subtract fractions with the same denominator	Add fractions: same denominator	Adding fractions with the same denominator
Recognise and write decimal equivalents of any number of tenths or hundredths	Write tenths as decimals	Introducing tenths as decimals
Recognise and write decimal equivalents to 1/4, 1/2, 3/4	Recognise and write decimal equivalents	Recognising and write decimal equivalents
Find the effect of dividing a one- or two-digit number by 10 and 100, identifying the value of the digits in the answer as ones, tenths and hundredths	Divide by 10 and 100	Dividing by 10
Round decimals with one decimal place to the nearest whole number	Round decimals with one decimal place	Rounding decimals to the nearest whole number
Compare numbers with the same number of decimal places up to two decimal places	Compare and order decimal numbers to 2dp	Comparing and ordering decimal numbers

Solve simple measure and money problems involving fractions and decimals to two decimal places	Add and subtract decimals	Adding and subtract decimals

2 Measurement

2.1 Measurement

Outcome	Quests	Content
Convert between different units of measure [for example, kilometre to metre; hour to minute]	Convert units of measure - Length	Converting - km, m, cm and mm
Measure and calculate the perimeter of a rectilinear figure (including squares) in centimetres and metres	Measure and calculate perimeter	Measuring and calculating perimeters
Find the area of rectilinear shapes by counting squares	Find the area of rectilinear shapes	Finding the area of rectilinear shapes
Estimate, compare and calculate different measures, including money in pounds and pence	Money: estimate, compare, calculate	Estimating and rounding amounts of money
Read, write and convert time between analogue and digital 12- and 24-hour clocks	Read, write and convert units of time	Reading, writing and converting units of time

3 Geometry

3.1 Properties of shape

Outcome	Quests	Content
Compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes	Compare and classify geometric shapes	Comparing and classifying quadrilaterals
Identify acute and obtuse angles and compare and order angles up to two right angles by size	Identify, compare and order angles	Identifying, comparing and ordering angles
Identify lines of symmetry in 2-D shapes presented in different orientations	Identify lines of symmetry in 2-D shapes	Identifying lines of symmetry in 2-D shapes
Complete a simple symmetric figure with respect to a specific line of symmetry.	Draw lines of symmetry	Drawing lines of symmetry

3.2 Position and direction

Outcome	Quests	Content
Describe positions on a 2-D grid as coordinates in the first quadrant	Describe position - first quadrant	Describing positions on a 2-D grid as coordinates
Describe movements between positions as translations of a given unit to the left/right and up/down	Describe translations - coordinate grid	Describing movement between positions
Plot specified points and draw sides to complete a given polygon	Find missing coordinates on polygons	Plotting specified points to complete a polygon

4 Statistics

4.1 Statistics

Outcome	Quests	Content
Interpret and present discrete and continuous data using appropriate graphical methods, including bar charts and time graphs	Interpret and present data: bar chart	Interpreting and presenting data in a bar chart
Solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and other graphs.	Solve comparison/sum/difference problems	Solving comparison, sum and difference problems

Year 5

1 Number

1.1 Number and place value

Outcome	Quests	Content
Read, write, order and compare numbers to at least 1,000,000 and determine the value of each digit	Read and write numbers to 1,000,000	Reading and writing numbers to 1,000,000
		Identifying place value, numbers to 1,000,000
		Comparing and ordering numbers to 1,000,000
		Using place value to partition numbers
		Using non-standard partitioning
Count forwards or backwards in steps of powers of 10 for any given number up to 1,000,000	Count in steps of powers of 10	Counting in steps of powers of 10 up to 1,000,000
Interpret negative numbers in context, count forwards and backwards with positive and negative whole numbers, including through 0	Interpret negative numbers in context	Interpreting negative numbers in context
Round any number up to 1,000,000 to the nearest 10, 100, 1,000, 10,000 and 100,000	Round numbers within 1,000,000	Rounding numbers within 1,000,000
Read Roman numerals to 1,000 (M) and recognise years written in Roman numerals	Read and write Roman numerals to 1,000	Reading and writing Roman numerals to 1,000

1.2 Addition and subtraction

Outcome	Quests	Content
Add and subtract whole numbers with more than 4 digits, including using formal written methods (columnar addition and subtraction)	Add/subtract numbers up to 5 digits	Adding whole numbers up to 5 digits
		Subtracting whole numbers up to 5 digits
Add and subtract numbers mentally with increasingly large numbers	Apply efficient add/subtract strategies	Applying efficient add/subtract strategies
Use rounding to check answers to calculations and determine, in the context of a problem, levels of accuracy	Use rounding to check calculations	Checking accuracy: addition/subtraction
Solve addition and subtraction multi-step problems in contexts,	Solve multi-step add/subtract problems	Solving two-step addition and subtraction problems

deciding which operations and methods to use and why		

1.3 Multiplication and division

Outcome	Quests	Content
Identify multiples and factors, including finding all factor pairs of a number, and common factors of two numbers	Identify multiples and factors	Identifying multiples up to 100
		Identifying factors and common factors
Establish whether a number up to 100 is prime and recall prime numbers up to 19	Introduce prime and composite numbers	Introducing prime and composite numbers
Multiply numbers up to 4 digits by a one- or two-digit number using a formal written method, including long multiplication for two-digit numbers	Multiply numbers up to 4 digits	Multiplying numbers up to 4 digits: expanded form
		Multiplying numbers up to 4 digits: area model
		Multiplying numbers up to 4-digits: algorithm
Multiply and divide numbers mentally, drawing upon known facts	Use known facts to multiply and divide	Using known facts to multiply
		Using known facts to divide
		Using known facts to multiply and divide
Divide numbers up to 4 digits by a one-digit number using the formal written method of short division and interpret remainders appropriately for the context	Divide up to 4-digit numbers	Dividing numbers up to 4 digit, no remainders
		Introducing remainders in division problems
		Dividing numbers up to 4 digit, remainders
Multiply and divide whole numbers and those involving decimals by 10, 100 and 1,000	Multiply and divide by 10, 100 and 1,000	Multiplying whole numbers by 10, 100 and 1,000
		Dividing whole numbers by 10, 100 and 1,000
		Multiplying decimals by 10, 100 and 1,000
		Dividing decimals by 10, 100 and 1,000
Recognise and use square numbers and cube numbers, and the notation for squared (^{2}) and cubed (^{3})	Describe square & cube numbers	Introducing & describing square numbers
		Introducing & describing cube numbers
Solve problems involving multiplication and division, including using their knowledge of factors and multiples, squares and cubes	Solve multiplication/division problems 1	Solving problems using factors and multiples
		Comparing square and cube numbers
		Solving multiplication word problems
		Solving division word problems
Solve problems involving addition, subtraction, multiplication and division and a combination of these,	Solve add/sub, mult/div problems	Using distributive properties
		Solving missing number problems

including understanding the meaning of the equals sign		
Solve problems involving multiplication and division, including scaling by simple fractions and problems involving simple rates	Solve multiplication/division problems 2	Scaling by fractions
		Solving problems involving simple rates

1.4 Fractions (including decimals and percentages)

Outcome	Quests	Content
Compare and order fractions whose denominators are all multiples of the same number	Compare and order fractions	Comparing/ordering fractions, related denominators
Identify, name and write equivalent fractions of a given fraction, represented visually, including tenths and hundredths	Investigate equivalent fractions	Investigating equivalent fractions
Recognise mixed numbers and improper fractions and convert from one form to the other and write mathematical statements > 1 as a mixed number [for example, 2/5 + 4/5 = 6/5 = 1 1/5]	Recognise mixed numbers and improper fractions	Recognising mixed numbers
		Converting improper fractions and mixed numbers
Add and subtract fractions with the same denominator, and denominators that are multiples of the same number	Add fractions	Adding fractions with the same denominator
		Adding fractions with related denominators
		Adding 3 or more fractions using models
		Adding whole numbers & fractions
		Adding mixed numbers with the same denominator
	Subtract fractions	Subtracting fractions with the same denominator
		Subtracting fractions from a whole number, models
		Subtracting fractions and mixed numbers
		Subtracting mixed numbers: same denominator
		Subtracting mixed numbers: related denominators
		Adding and subtracting fractions: same denominator
Multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams	Multiply fractions by whole numbers	Multiplying fractions by whole numbers
	Multiply mixed numbers by whole numbers	Multiplying mixed numbers by whole numbers

Recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents	Introduce thousandths	Introducing thousandths
Round decimals with 2 decimal places to the nearest whole number and to 1 decimal place	Round decimals	Rounding decimals
Read, write, order and compare numbers with up to 3 decimal places	Order and compare decimals	Ordering/comparing decimals, up to 3 decimal places
Solve problems involving number up to 3 decimal places	Add decimals	Adding decimals to 1 decimal place
		Adding decimals to 2 decimal places
		Adding decimals to 3 decimal places
		Investigating decimal compliments to 1
	Subtract decimals	Subtracting decimals within 1
		Subtracting decimals up to 3 decimal places
	Identify decimal sequences	Identifying & creating decimal sequences
Recognise the per cent symbol (%) and understand that per cent relates to 'number of parts per hundred', and write percentages as a fraction with denominator 100, and as a decimal	Introduce percentages	Introducing percentages
Solve problems which require knowing percentage and decimal equivalents of 1/2, 1/4, 1/5, 2/5, 4/5 and those fractions with a denominator of a multiple of 10 or 25	Solve percentage equivalence problems	Converting common fractions to percentages

2 Measurement

2.1 Measurement

Outcome	Quests	Content
Convert between different units of metric measure [for example, kilometre and metre; centimetre and metre; centimetre and millimetre; gram and kilogram; litre and millilitre]	Convert units of mass	Converting between kilograms and grams
	Convert units of length	Converting between m, cm & mm
	Convert units of capacity	Converting between litres & millilitres
Understand and use approximate equivalences between metric units and common imperial units such as inches, pounds and pints	Convert between metric & imperial units	Converting between metric and imperial (length)
		Converting between metric and imperial (capacity)
Measure and calculate the perimeter of composite rectilinear shapes in centimetres and metres	Calculate perimeter	Calculating perimeter
Calculate and compare the area of rectangles (including squares), including using standard units, square centimetres (cm^2) and square metres (m^2), and estimate the area of irregular shapes	Calculate and compare area	Introducing the square centimetre and square metre
		Comparing and ordering areas
		Estimating and comparing areas of irregular shapes
		Calculating the area of a rectangle
Estimate volume [for example, using 1 cm^3 blocks to build cuboids (including cubes)] and capacity [for example, using water]	Estimate capacity	Estimating and comparing capacity
	Estimate volume	Estimating volume using 1 cm^3 blocks
Solve problems involving converting between units of time	Convert units of time	Converting units of time
Use all four operations to solve problems involving measure [for example, length, mass, volume, money] using decimal notation, including scaling	Solve measure problems with decimals	Equivalent measures to 3 decimal places
		Comparing/ordering units of mass to 3 dp
		Solving money problems, multiplication & division

3 Geometry

3.1 Properties of shapes

Outcome	Quests	Content
Identify 3-D shapes, including cubes and other cuboids, from 2-D representations	Identify 3-D shapes from 2-D representations	Connecting nets of 3-D shapes
Know angles are measured in degrees: estimate and compare acute, obtuse and reflex angles	Compare angles	Comparing angles
Draw given angles, and measure them in degrees (°)	Measure angles	Measuring angles
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 *distinguish between regular and irregular polygons based on reasoning about equal sides and angles	Classify angles	Classifying angles
	Classify quadrilaterals	Classifying quadrilaterals
	Identify regular & irregular polygons	Identifying regular & irregular polygons

3.2 Position and direction

Outcome	Quests	Content
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	Reflections and translations	Reflections with coordinates
		Translations with coordinates

4 Statistics

4.1 Statistics

Outcome	Quests	Content
Solve comparison, sum and difference problems using information presented in a line graph	Solve problems using line graphs	Solving problems using line graphs
Complete, read and interpret information in tables, including timetables	Solve problems with tables	Reading and interpreting data in tables
		Representing bivariate data in two-way tables
		Using timetables

Year 6

1 Number

1.1 Number and place value

Outcome	Quests	Content
Read, write, order and compare numbers up to 10,000,000 and determine the value of each digit	Read and write numbers to 10,000,000	Reading and writing numbers to 10,000,000
		Identifying place value up to 10,000,000
		Using place value to partition 7-digit numbers
		Comparing and ordering numbers to 10,000,000
Round any whole number to a required degree of accuracy	Round numbers of any size	Rounding numbers of any size
Use negative numbers in context, and calculate intervals across 0	Positive & negative numbers in context	Positive and negative numbers in context

1.2 Addition, subtraction, multiplication and division

Outcome	Quests	Content
Multiply multi-digit numbers up to 4 digits by a two-digit whole number using the formal written method of long multiplication	Multiply multi-digit numbers	Multiplying 3-digits by 2-digits: expanded form
		Multiplying 4-digits by 2-digits: algorithm
Divide numbers up to 4 digits by a two-digit whole number using the formal written method of long division, and interpret remainders as whole number remainders, fractions, or by rounding, as appropriate for the context	Divide by 2-digits, long division	Dividing by 2-digits, expanded form: long division
		Dividing by 2-digits, algorithm (long division)
Divide numbers up to 4 digits by a two-digit number using the formal written method of short division where appropriate, interpreting remainders according to the context	Divide by 2-digits, short division	Dividing by 2-digits, algorithm (short division)
Perform mental calculations, including with mixed operations and large numbers	Perform mental calculations	Applying strategies for addition and subtraction
Identify common factors, common multiples and prime numbers	Identify common factors/multiples/primes	Identifying prime and composite numbers
		Finding common factors for two numbers
		Finding multiples up to 144

Use their knowledge of the order of operations to carry out calculations involving the 4 operations	Introduce order of operations	Introducing order of operations
		Grouping symbols in order of operations
Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why	Solve add/sub multi-step problems	Solving add/sub word problems
Solve problems involving addition, subtraction, multiplication and division	Solve problems with the 4 operations	Solving multiplication and division word problems
		Solving addition and subtraction word problems
Use estimation to check answers to calculations and determine, in the context of a problem, an appropriate degree of accuracy	Check the accuracy of calculations	Rounding to estimate quotients
		Checking accuracy, addition/subtraction
		Rounding to estimate products

1.3 Fractions (including decimals and percentages)

Outcome	Quests	Content
Use common factors to simplify fractions; use common multiples to express fractions in the same denomination	Use common factors and multiples	Equivalent simple fractions, related denominators
		Using common factors to simplify proper fractions
Compare and order fractions, including fractions >1	Compare and order fractions	Comparing and ordering proper fractions
		Comparing and ordering mixed numbers
		Comparing and ordering improper fractions
		Comparing and ordering fractions and mixed numbers
Add and subtract fractions with different denominators and mixed numbers, using the concept of equivalent fractions	Add and subtract fractions	Adding fractions, related denominators
		Adding fractions, unrelated denominators
		Subtracting fractions, related denominators
		Subtracting fractions, unrelated denominators
		Adding/subtracting fractions, related denominators
		Add/subtract fractions, unrelated denominators
Multiply simple pairs of proper fractions, writing the answer in its simplest form [for example, 1/4 × 1/2 = 1/8]	Multiply proper fractions	Multiplying proper fractions
Divide proper fractions by whole numbers [for example, 1/3 ÷ 2 = 1/6]	Divide proper fractions by whole numbers	Dividing proper fractions by whole numbers

Associate a fraction with division and calculate decimal fraction equivalents [for example, 0.375] for a simple fraction [for example, 3/8]	Interpret fractions as division	Interpreting fractions as division
	Convert simple fractions to decimals	Converting simple fractions to decimals
Identify the value of each digit in numbers given to 3 decimal places and multiply and divide numbers by 10, 100 and 1,000 giving answers up to 3 decimal places	Multiply/divide decimals by powers of 10	Multiplying decimals by 10, 100 and 1,000
		Dividing decimals by 10, 100 and 1,000
	Identify decimal place value	Identifying decimal place value
Multiply one-digit numbers with up to 2 decimal places by whole numbers	Multiply decimals and whole numbers	Multiplying decimals and whole numbers
Use written division methods in cases where the answer has up to 2 decimal places	Divide decimals and whole numbers	Dividing decimals and whole numbers
Solve problems which require answers to be rounded to specified degrees of accuracy	Round with decimals	Using rounding to check division
		Rounding decimals
Recall and use equivalences between simple fractions, decimals and percentages, including in different contexts	Fractions, decimals and percentages	Representing simple fractions as percentages
		Representing percentages and decimals
		Fraction, decimal and percentage equivalence

2 Ratio and proportion

2.1 Ratio and proportion

Outcome	Quests	Content
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 ratios	Solving problems involving ratios
Solve problems involving the calculation of percentages [for example, of measures and such as 15% of 360] and the use of percentages for comparison	Calculate percentages	Calculating simple percentages
		Calculating simple percentages of quantities
Solve problems involving similar shapes where the scale factor is known or can be found	Solve problems involving scale factor	Solving problems involving scale factor
Solve problems involving unequal sharing and grouping using knowledge of fractions and multiples	Solve problems with unequal quantities	Solving problems involving unequal quantities

3 Algebra

3.1 Algebra

Outcome	Quests	Content
Generate and describe linear number sequences	Generate linear number sequences	Generating linear number sequences
		Finding the rule for a linear number sequence
		Finding the nth term of simple linear sequences
Express missing number problems algebraically	Write and solve missing number problems	Writing and solving equations
Find pairs of numbers that satisfy an equation with 2 unknowns	Equations with 2 unknowns	Equations with 2 unknowns

4 Measurement

4.1 Measurement

Outcome	Quests	Content
Use, read, write and convert between standard units, converting measurements of length, mass, volume and time from a smaller unit of measure to a larger unit, and vice versa, using decimal notation to up to 3 decimal places	Convert measurements, decimal notation	Converting between common metric units of length
		Converting between standard metric units of mass
		Converting between common metric units of capacity
Convert between miles and kilometres	Convert between miles and kilometres	Converting between miles and kilometres
Calculate the area of parallelograms and triangles	Area of parallelograms and triangles	Calculating the area of a triangle
		Calculating the area of a parallelogram
Calculate, estimate and compare volume of cubes and cuboids using standard units, including cubic centimetres (cm^3) and cubic metres (m^3), and extending to other units [for example, mm^3 and km^3]	Find the volume of cubes and cuboids	Calculating the volume of cubes and cuboids

5 Geometry

5.1 Properties of shapes

Outcome	Quests	Content
Recognise, describe and build simple 3-D shapes, including making nets	Recognise and describe simple 3-D shapes	Describing and naming prisms and pyramids
		Investigating cross-sections of prisms & pyramids
		Connecting 3-D shapes with their nets
Compare and classify geometric shapes based on their properties and sizes and find unknown angles in any triangles, quadrilaterals, and regular polygons	Classify geometric shapes	Classifying triangles by their sides and angles
		Classifying quadrilaterals by their features
		Classifying shapes in a hierarchy
	Find unknown angles	Calculating interior angles of triangles
		Calculating interior angles of quadrilaterals
		Calculating interior angles of regular polygons
Illustrate and name parts of circles, including radius, diameter and circumference and know that the diameter is twice the radius	Name the parts of circles	Naming the parts of circles
Recognise angles where they meet at a point, are on a straight line, or are vertically opposite, and find missing angles	Find missing angles	Adjacent, straight, and vertically opposite angles

5.2 Position and direction

Outcome	Quests	Content
Describe positions on the full coordinate grid (all 4 quadrants)	Describe positions, 4 quadrants	Describing positions, 4 quadrants
		Drawing polygons on the coordinate grid
Draw and translate simple shapes on the coordinate plane, and reflect them in the axes	Translations & reflections, 4 quadrants	Reflections, 4 quadrants
		Understanding translations, 4 quadrants

6 Statistics

6.1 Statistics

Outcome	Quests	Content
Interpret and construct pie charts and line graphs and use these to solve problems	Identifying pie charts and line graphs	Interpreting and constructing pie charts
		Interpreting and constructing line graphs
Calculate and interpret the mean as an average	Calculate and interpret the mean	Calculating and interpreting the mean

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