

# Pathway 3

## Autumn Term

Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12	Week 13	Week 14	Week 15
Number Place value / Rounding		Number Addition / Subtraction		Number Multiplication / Division		Number Fractions		Number Place value / Rounding		Number Addition / Subtraction		Number Multiplication / Division		Number Fractions
Measurement Time				Geometry 2-D / 3- D Shape		Statistics Use and Interpret		Measurement Money				Geometry Lines and Angles		Statistics Use and Interpret

## Spring Term

Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12
Number Place value / Rounding		Number Addition / Subtraction		Number Multiplication / Division		Number Fractions		Number Place value / Rounding		Number Addition / Subtraction	
Measurement Using Measures			Geometry 2-D / 3- D Shape		Statistics Use and Interpret		Measurement Time			Geometry Lines and Angles	

## Summer Term

Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12
Number Multiplication / Division		Number Fractions		Number Place value / Rounding		Number Addition / Subtraction		Number Multiplication / Division		Number Fractions	
Measurement Money			Geometry 2-D / 3-D Shape		Statistics Use and Interpret		Measurement Using Measures			Geometry Lines and Angles	

# Pathway 3

## Number: Place Value

- Count from 0 in multiples of 4, 8, 50 and 100; find 10 or 100 more or less than a given number
- Recognise the place value of each digit in a three-digit number (hundreds, tens, ones)
- Identify, represent and estimate numbers using different representations including those related to measure
- Apply partitioning related to place value using varied and increasingly complex problems
- Read and write numbers to at least 1000 in numerals and in words
- Compare and order numbers up to 1000
- Solve number problems and practical problems involving place value and rounding

## Number: Addition and Subtraction

- Add and subtract numbers mentally, including:
  - a three-digit number and ones
  - a three-digit number and tens e.g.  $824 - 30$
  - a three-digit number and hundreds
  - two-digit numbers where the answer could exceed 100 e.g.  $68+47$
- Add and subtract numbers with up to three digits, using the efficient written methods of columnar addition and subtraction
- Estimate the answer to a calculation and use inverse operations to check answers
- Solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction e.g. investigate the numbers which could go in the boxes when

	3	=	2			6
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## Geometry: Properties of Shape

- Draw 2-D shapes and make 3-D shapes using modelling materials; recognise 3-D shapes in different orientations; and describe them
- Describe the properties of shapes using accurate language, including symmetrical/not symmetrical, lengths of lines, and acute and obtuse angles
- Recognise that angles are a property of shape or a description of 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
- Construct 3D shapes

## Number: Multiplication and Division

- Recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables
- Develop efficient mental methods, for example, using commutativity e.g.  $4 \times 12 \times 5 = 4 \times 5 \times 12 = 20 \times 12 = 240$  and multiplication and division facts to derive related facts
- 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 e.g.  $46 \times 8$  or  $81 \div 3$
- Solve problems, including missing number problems, involving multiplication and division, including integer scaling problems (e.g. change a recipe for 2 people to make enough for 6 people) and correspondence problems in which  $n$  objects are connected to  $m$  objects. e.g. 3 hats and 4 coats, how many different outfits? Or Share 6 cakes equally between 4 children.

## Number: Fractions

- 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
- Connect tenths to place value and decimal measures (not restricted to decimals between 0 and 1) and to division by 10 e.g.  $13/10 = 1.3$
- Recognise, find and write fractions of a discrete set of objects: unit fractions and non-unit fractions with small denominators e.g. find  $4/5$  of 30
- Understand the relation between unit fractions as operators (fractions of), and division by integers e.g. to find  $1/3$ , you divide by 3; to find  $1/5$ , you divide by 5
- Recognise and use fractions as numbers on the number line: unit fractions and non-unit fractions with small denominators
- Recognise and show, using diagrams, equivalent fractions with small denominators
- Add and subtract fractions with the same denominator within one whole e.g. If  $1/3$  of a cake is eaten then  $2/3$  remains or  $5/7 + 1/7 = 6/7$
- Compare and order unit fractions, and fractions with the same denominators e.g. put in order  $1/2, 1/8, 1/4, 1/6$
- Solve problems that involve fractions e.g. Ali, Ben and Cara have 24 fish.  $2/3$  of them belong to Ali,  $1/4$  belong to Ben and the rest belong to Cara; how many fish belong to Cara?

## Measurement

### Using Measure

- Measure, compare, add and subtract: length (m/cm/mm); mass (kg/g); volume/capacity (l/ml) e.g. Read 300ml on a scale labelled every 200ml. Order a set of containers by capacity, using a measuring jug and water to check.
- Know the approximate capacity of a cup, a jug, a bucket...
- Measure the perimeter of simple 2-D shapes e.g. measure accurately the sides of a triangle in cm or mm, in order to find the perimeter

### Money

- Add and subtract amounts of money to give change, using both £ and p in practical contexts e.g. Ali is saving 80p each week, to buy a toy costing £5; how many weeks will it take him?

### Time

- Tell and write the time from an analogue clock, including using Roman numerals from I to XII, and 12-hour and 24-hour digital clocks
- Estimate and read time with increasing accuracy to the nearest minute; record and compare time in terms of seconds, minutes, hours and o'clock; use vocabulary such as a.m./p.m., morning, afternoon, noon and midnight
- Compare durations of events, for example to calculate the time taken by particular events or tasks.
- Know the number of seconds in a minute and the number of days in each month, year and leap year

## Statistics: Use and interpret data

- Interpret and present data using bar charts, pictograms and tables, understanding and using simple scales e.g. 2, 5, 10 units per cm with increasing accuracy.
- Solve one-step and two-step questions such as 'How many more?' and 'How many fewer?' using information presented in scaled bar charts and pictograms and tables.