### YEAR 6 - MATHEMATICS - SMALL STEPS

#### **PLACE VALUE**

Year 6	Year 6   Autumn term   Block 1 – Place value			
Small	steps			
Step 1	Numbers to 1,000,000			
Step 2	Numbers to 10,000,000			
Step 3	Read and write numbers to 10,000,000			
Step 4	Powers of 10			
Step 5	Number line to 10,000,000			
Step 6	Compare and order any integers			
Step 7	Round any integer			
Step 8	Negative numbers			

#### ADDITION, SUBTRACTION, MULTIPLICATION AND DIVISION

Year 6 | Autumn term | Block 2 – Addition, subtraction, multiplication and division

Small steps			
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Step 1	Add and subtract integers		
Step 2	Common factors		
Step 3	Common multiples		
Step 4	Rules of divisibility		
Step 5	Primes to 100		
Step 6	Square and cube numbers		
Step 7	Multiply up to a 4-digit number by a 2-digit number		
Step 8	Solve problems with multiplication		
Step 9	Short division		
Step 10	Division using factors		
Step 11	Introduction to long division		
Step 12	Long division with remainders		
Step 13	Solve problems with division		
Step 14	Solve multi-step problems		
Step 15	Order of operations		
Step 16	Mental calculations and estimation		
Step 17	Reason from known facts		

#### **FRACTIONS A**

## Year 6 | Autumn term | Block 3 - Fractions A Small steps Step 1 Equivalent fractions and simplifying Step 2 Equivalent fractions on a number line Step 3 Compare and order (denominator) Step 4 Compare and order (numerator) Step 5 Add and subtract simple fractions Add and subtract any two fractions Step 6 Add mixed numbers Step 7 Subtract mixed numbers Step 8 Multi-step problems Step 9

#### **FRACTIONS B**

Year 6   Autumn term   Block 4 – Fractions B			
Small	Small steps		
Step 1	Multiply fractions by integers		
Step 2	Multiply fractions by fractions		
Step 3	Divide a fraction by an integer		
Step 4	Divide any fraction by an integer		
Step 5	Mixed questions with fractions		
Step 6	Fraction of an amount		
Step 7	Fraction of an amount – find the whole		

#### **MEASUREMENT – CONVERTING UNITS**

Year 6   Autumn term   Block 5 - Converting units			
Small	Small steps		
Step 1	Metric measures		
Step 2	Convert metric measures		
Step 3	Calculate with metric measures		
Step 4	Miles and kilometres		
Step 5	Imperial measures		

### <u>RATIO</u>

## Year 6 | Spring term | Block 1 - Ratio

Step 1	Add or multiply?
Step 2	Use ratio language
Step 3	Introduction to the ratio symbol
Step 4	Ratio and fractions
Step 5	Scale drawing
Step 6	Use scale factors
Step 7	Similar shapes
Step 8	Ratio problems
Step 9	Proportion problems
Step 10	Recipes

### <u>ALGEBRA</u>

## Year 6 | Spring term | Block 2 - Algebra

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Step 1	1-step function machines
Step 2	2-step function machines
Step 3	Form expressions
Step 4	Substitution
Step 5	Formulae
Step 6	Form equations
Step 7	Solve 1-step equations
Step 8	Solve 2-step equations
Step 9	Find pairs of values
Step 10	Solve problems with two unknowns

#### **DECIMALS**

Step 8

## Year 6 | Spring term | Block 3 - Decimals

# **Small steps**

Step 1	Pl	ace va	lue wit	hin 1
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Step 2 Place value – integers and decimals

Step 3 Round decimals

Step 4 Add and subtract decimals

Step 5 Multiply by 10, 100 and 1,000

Step 6 Divide by 10, 100 and 1,000

Step 7 Multiply decimals by integers

Divide decimals by integers

Step 9 Multiply and divide decimals in context

#### FRACTIONS, DECIMALS AND PERCENTAGES

## Year 6 | Spring term | Block 4 - Fractions, decimals and percentages

Small	Small steps			
Step 1	Decimal and fraction equivalents			
Step 2	Fractions as division			
Step 3	Understand percentages			
Step 4	Fractions to percentages			
Step 5	Equivalent fractions, decimals and percentages			
Step 6	Order fractions, decimals and percentages			
Step 7	Percentage of an amount – one step			
Step 8	Percentage of an amount – multi-step			
Step 9	Percentages – missing values			

#### MEASUREMENT – AREA, PERIMETER AND VOLUME

## Year 6 | Spring term | Block 5 - Area, perimeter and volume

Step 1	Shapes – same area
Step 2	Area and perimeter
Step 3	Area of a triangle – counting squares
Step 4	Area of a right-angled triangle
Step 5	Area of any triangle
Step 6	Area of a parallelogram
Step 7	Volume – counting cubes
Step 8	Volume of a cuboid

#### **GEOMETRY – STATISTICS**

## Year 6 | Spring term | Block 6 - Statistics

# **Small steps**

Step 2 Dual bar charts

Step 3 Read and interpret pie charts

Step 4 Pie charts with percentages

Step 5 Draw pie charts

Step 6 The mean

#### **GEOMETRY – SHAPE**

## Year 6 | Summer term | Block 1 - Shape

Small steps			
Step 1	Measure and classify angles		
Step 2	Calculate angles		
Step 3	Vertically opposite angles		
Step 4	Angles in a triangle		
Step 5	Angles in a triangle – special cases		
Step 6	Angles in a triangle – missing angles		
Step 7	Angles in a quadrilateral		
Step 8	Angles in polygons		
Stop 9	Circles		
Step 9	Circles		
Step 10	Draw shapes accurately		
Step 11	Nets of 3-D shapes		

#### **GEOMETRY – POSITION AND DIRECTION**

## Year 6 | Summer term | Block 2 - Position and direction

# **Small steps**

Step 1	The fir	rst quadrant
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Step 2 Read and plot points in four quadrants

Step 3 Solve problems with coordinates

Step 4 Translations

Step 5 Reflections