



LEIGH ST PETER'S CE PRIMARY SCHOOL

Together with God we challenge minds, recognise talents, and build dreams

LOVE

RESPECT

TRUST

FRIENDSHIP

RESPONSIBILITY

PERSEVERANCE

RESILIENCE

Mathematics Long Term Overview: Year 6 2021-22

Year 6 Overview

	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
Autumn	Four operations	Fractions	Fractions & Percentages	Multiply & Divide	Sats /polish	Varied fluency	Reasoning	Percentages	Translations Reflections Symmetry	Fractions, Decimals & Percentages	Four Rules	Reasoning	Ratio & Proportion	SATs	Mean, Coordinates, Algebra
		Mixed and improper fractions, Fractions of amounts	50% 25% 10% 20% etc Simple problems	Varied fluency Word problems	x10, 100, 1000 ÷10, 100, 1000 2digit x 2digit Chunking for division			Find % of amounts (50 25%) then (10, 20, 30, 40, 60, 70)			Assessment week				Find coordinates in four quadrants
Spring	Add, Subtract, Multiply & Divide	Angles	Data	Measures	Area & Perimeter	SATs & polishing	Time and Money	Charts, Tables, Pies	Measures	2D & 3D Shapes	SATs	Dec/Frac/%			
					Triangles and parallelograms as well				Reasoning						
Summer	Revision	Revision	Revision	SATs Week							Place Value	Four Rules			



LEIGH ST PETER'S CE PRIMARY SCHOOL

Together with God we challenge minds, recognise talents, and build dreams

LOVE

RESPECT

TRUST

FRIENDSHIP

RESPONSIBILITY

PERSEVERANCE

RESILIENCE

Medium Term Plan – Unit Overview – Year 6

Term	Autumn
Unit	Four Operations
NC Objectives	<ul style="list-style-type: none">• multiply multi-digit numbers up to 4 digits by a two-digit whole number using the formal written method of long multiplication• 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 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• perform mental calculations, including with mixed operations and large numbers• identify common factors, common multiples and prime numbers• use their knowledge of the order of operations to carry out calculations involving the four operations• solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why Mathematics – key stages 1 and 2 40 Statutory requirements• solve problems involving addition, subtraction, multiplication and division• Use estimation to check answers to calculations and determine, in the context of a problem, an appropriate degree of accuracy.
Small Steps	<ul style="list-style-type: none">• Add and Subtract integers.• Multiple up to a 4 digit number by a 2 digit number.• Division• Division using factors.• Common factors.• Common multiples.• Prime number to 100.• Order of operations.• Mental calculations and estimations.• Reasons for known facts.
Key Vocabulary- Introduced at Year 6	Multiplication and Division: No new vocabulary introduced at Year 6
Reasoning and Problem Solving Vocabulary	Pattern, puzzle, problem, problem solving, mental, mentally, what could we try next?, how did you work it out?, show how you ..., explain your thinking, explain your method, describe the pattern, describe the rule, investigate, recognise, describe, draw, compare, sort, greatest value, least value, mental calculation, written calculation, statement, justify, make a statement, explain your reasoning



LEIGH ST PETER'S CE PRIMARY SCHOOL

Together with God we challenge minds, recognise talents, and build dreams

LOVE

RESPECT

TRUST

FRIENDSHIP

RESPONSIBILITY

PERSEVERANCE

RESILIENCE

Medium Term Plan – Unit Overview – Year 6

Term	Autumn
Unit	Fractions
NC Objectives	<ul style="list-style-type: none">• use common factors to simplify fractions; use common multiples to express fractions in the same denomination• compare and order fractions, including fractions > 1• add and subtract fractions with different denominators and mixed numbers, using the concept of equivalent fractions• multiply simple pairs of proper fractions, writing the answer in its simplest form [for example, $4 \frac{1}{2} \times 2 \frac{1}{2} = 8 \frac{1}{2}$]• divide proper fractions by whole numbers [for example, $3 \frac{1}{2} \div 2 = 6 \frac{1}{4}$]• associate a fraction with division and calculate decimal fraction equivalents [for example, 0.375] for a simple fraction [for example, $\frac{3}{8}$]• identify the value of each digit in numbers given to three decimal places and multiply and divide numbers by 10, 100 and 1000 giving answers up to three decimal places• multiply one-digit numbers with up to two decimal places by whole numbers• use written division methods in cases where the answer has up to two decimal places• solve problems which require answers to be rounded to specified degrees of accuracy• recall and use equivalences between simple fractions, decimals and percentages, including in different contexts.
Small Steps	<ul style="list-style-type: none">• Equivalent fractions• Simplify Fractions• Improper fractions to mixed numbers• Mixed numbers to improper fractions• Fractions on a number line.• Compare and order denominator• Compare and order numerator• Add and Subtract fractions• Add mixed numbers• Add fractions• Subtract mixed numbers• Subtract fractions
Key Vocabulary- Introduced at Year 6	Fractions, Decimals and Percentages: ratio
Reasoning and Problem Solving Vocabulary	Pattern, puzzle, problem, problem solving, mental, mentally, what could we try next?, how did you work it out?, show how you ..., explain your thinking, explain your method, describe the pattern, describe the rule, investigate, recognise, describe, draw, compare, sort, greatest value, least value, mental calculation, written calculation, statement, justify, make a statement, explain your reasoning



LEIGH ST PETER'S CE PRIMARY SCHOOL

Together with God we challenge minds, recognise talents, and build dreams

LOVE

RESPECT

TRUST

FRIENDSHIP

RESPONSIBILITY

PERSEVERANCE

RESILIENCE

Medium Term Plan – Unit Overview – Year 6

Term	Autumn
Unit	Percentages
NC Objectives	<ul style="list-style-type: none">• use common factors to simplify fractions; use common multiples to express fractions in the same denomination• compare and order fractions, including fractions > 1• add and subtract fractions with different denominators and mixed numbers, using the concept of equivalent fractions• multiply simple pairs of proper fractions, writing the answer in its simplest form [for example, $4 \frac{1}{2} \times 2 \frac{1}{2} = 8 \frac{1}{2}$]• divide proper fractions by whole numbers [for example, $3 \frac{1}{2} \div 2 = 6 \frac{1}{2}$]• associate a fraction with division and calculate decimal fraction equivalents [for example, 0.375] for a simple fraction [for example, $\frac{8}{3}$]• identify the value of each digit in numbers given to three decimal places and multiply and divide numbers by 10, 100 and 1000 giving answers up to three decimal places• multiply one-digit numbers with up to two decimal places by whole numbers• use written division methods in cases where the answer has up to two decimal places• solve problems which require answers to be rounded to specified degrees of accuracy• recall and use equivalences between simple fractions, decimals and percentages, including in different contexts.
Small Steps	<ul style="list-style-type: none">• Fractions to percentages• Equivalent FDP• Order FDP• Percentage of an amount• Percentage – missing values
Key Vocabulary- Introduced at Year 6	Fractions, Decimals and Percentages: ratio Fractions, Decimals and Percentages: ratio
Reasoning and Problem Solving Vocabulary	Pattern, puzzle, problem, problem solving, mental, mentally, what could we try next?, how did you work it out?, show how you ..., explain your thinking, explain your method, describe the pattern, describe the rule, investigate, recognise, describe, draw, compare, sort, greatest value, least value, mental calculation, written calculation, statement, justify, make a statement, explain your reasoning



LEIGH ST PETER'S CE PRIMARY SCHOOL

Together with God we challenge minds, recognise talents, and build dreams

LOVE

RESPECT

TRUST

FRIENDSHIP

RESPONSIBILITY

PERSEVERANCE

RESILIENCE

Medium Term Plan – Unit Overview – Year 6

Term	Autumn
Unit	Four Operations – Multiplication and Division
NC Objectives	<ul style="list-style-type: none">• multiply multi-digit numbers up to 4 digits by a two-digit whole number using the formal written method of long multiplication• 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 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• perform mental calculations, including with mixed operations and large numbers• identify common factors, common multiples and prime numbers• use their knowledge of the order of operations to carry out calculations involving the four operations• solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why Mathematics – key stages 1 and 2 40 Statutory requirements• solve problems involving addition, subtraction, multiplication and division• Use estimation to check answers to calculations and determine, in the context of a problem, an appropriate degree of accuracy.
Small Steps	<ul style="list-style-type: none">• Add and Subtract integers.• Multiple up to a 4 digit number by a 2 digit number.• Division• Division using factors.• Common factors.• Common multiples.• Prime number to 100.• Order of operations.• Mental calculations and estimations.• Reasons for known facts.
Key Vocabulary- Introduced at Year 6	Multiplication and Division: No new vocabulary introduced at Year 6
Reasoning and Problem Solving Vocabulary	Pattern, puzzle, problem, problem solving, mental, mentally, what could we try next?, how did you work it out?, show how you ..., explain your thinking, explain your method, describe the pattern, describe the rule, investigate, recognise, describe, draw, compare, sort, greatest value, least value, mental calculation, written calculation, statement, justify, make a statement, explain your reasoning



LEIGH ST PETER'S CE PRIMARY SCHOOL

Together with God we challenge minds, recognise talents, and build dreams

LOVE

RESPECT

TRUST

FRIENDSHIP

RESPONSIBILITY

PERSEVERANCE

RESILIENCE

Medium Term Plan – Unit Overview – Year 6

Term	Autumn
Unit	Percentages
NC Objectives	<ul style="list-style-type: none">• use common factors to simplify fractions; use common multiples to express fractions in the same denomination• compare and order fractions, including fractions > 1• add and subtract fractions with different denominators and mixed numbers, using the concept of equivalent fractions• multiply simple pairs of proper fractions, writing the answer in its simplest form [for example, $4 \frac{1}{2} \times 2 \frac{1}{2} = 8 \frac{1}{2}$]• divide proper fractions by whole numbers [for example, $3 \frac{1}{2} \div 2 = 6 \frac{1}{2}$]• associate a fraction with division and calculate decimal fraction equivalents [for example, 0.375] for a simple fraction [for example, $\frac{3}{8}$]• identify the value of each digit in numbers given to three decimal places and multiply and divide numbers by 10, 100 and 1000 giving answers up to three decimal places• multiply one-digit numbers with up to two decimal places by whole numbers• use written division methods in cases where the answer has up to two decimal places• solve problems which require answers to be rounded to specified degrees of accuracy• recall and use equivalences between simple fractions, decimals and percentages, including in different contexts.
Small Steps	<ul style="list-style-type: none">• Fractions to percentages• Equivalent FDP• Order FDP• Percentage of an amount• Percentage – missing values
Key Vocabulary- Introduced at Year 6	Fractions, Decimals and Percentages: ratio
Reasoning and Problem Solving Vocabulary	Pattern, puzzle, problem, problem solving, mental, mentally, what could we try next?, how did you work it out?, show how you ..., explain your thinking, explain your method, describe the pattern, describe the rule, investigate, recognise, describe, draw, compare, sort, greatest value, least value, mental calculation, written calculation, statement, justify, make a statement, explain your reasoning



LEIGH ST PETER'S CE PRIMARY SCHOOL

Together with God we challenge minds, recognise talents, and build dreams

LOVE

RESPECT

TRUST

FRIENDSHIP

RESPONSIBILITY

PERSEVERANCE

RESILIENCE

Medium Term Plan – Unit Overview – Year 6

Term	Autumn
Unit	Geometry: Position and Direction
NC Objectives	<ul style="list-style-type: none">• describe positions on the full coordinate grid (all four quadrants)• draw and translate simple shapes on the coordinate plane, and reflect them in the axes.
Small Steps	<ul style="list-style-type: none">• The First quadrant• Four Quadrants• Translations• Reflections
Key Vocabulary- Introduced at Year 6	Position and Direction: reflex angle
Reasoning and Problem Solving Vocabulary	Pattern, puzzle, problem, problem solving, mental, mentally, what could we try next?, how did you work it out?, show how you ..., explain your thinking, explain your method, describe the pattern, describe the rule, investigate, recognise, describe, draw, compare, sort, greatest value, least value, mental calculation, written calculation, statement, justify, make a statement, explain your reasoning



LEIGH ST PETER'S CE PRIMARY SCHOOL

Together with God we challenge minds, recognise talents, and build dreams

LOVE

RESPECT

TRUST

FRIENDSHIP

RESPONSIBILITY

PERSEVERANCE

RESILIENCE

Medium Term Plan – Unit Overview – Year 6

Term	Autumn
Unit	Fractions, Percentages and Decimals
NC Objectives	<ul style="list-style-type: none">• use common factors to simplify fractions; use common multiples to express fractions in the same denomination• compare and order fractions, including fractions > 1• add and subtract fractions with different denominators and mixed numbers, using the concept of equivalent fractions• multiply simple pairs of proper fractions, writing the answer in its simplest form [for example, $4 \frac{1}{2} \times 2 \frac{1}{2} = 8 \frac{1}{2}$]• divide proper fractions by whole numbers [for example, $3 \frac{1}{2} \div 2 = 6 \frac{1}{2}$]• associate a fraction with division and calculate decimal fraction equivalents [for example, 0.375] for a simple fraction [for example, $\frac{3}{8}$]• identify the value of each digit in numbers given to three decimal places and multiply and divide numbers by 10, 100 and 1000 giving answers up to three decimal places• multiply one-digit numbers with up to two decimal places by whole numbers• use written division methods in cases where the answer has up to two decimal places• solve problems which require answers to be rounded to specified degrees of accuracy• recall and use equivalences between simple fractions, decimals and percentages, including in different contexts.
Small Steps	<ul style="list-style-type: none">• 3 decimal places• Multiply by 10, 100 and 1,000• Divide by 10, 100 and 1,000• Multiply decimals by integers• Division to solve problems• Decimals as fractions• Fractions to decimals
Key Vocabulary- Introduced at Year 6	Fractions, Decimals and Percentages: ratio
Reasoning and Problem Solving Vocabulary	Pattern, puzzle, problem, problem solving, mental, mentally, what could we try next?, how did you work it out?, show how you ..., explain your thinking, explain your method, describe the pattern, describe the rule, investigate, recognise, describe, draw, compare, sort, greatest value, least value, mental calculation, written calculation, statement, justify, make a statement, explain your reasoning



LEIGH ST PETER'S CE PRIMARY SCHOOL

Together with God we challenge minds, recognise talents, and build dreams

LOVE

RESPECT

TRUST

FRIENDSHIP

RESPONSIBILITY

PERSEVERANCE

RESILIENCE

Medium Term Plan – Unit Overview – Year 6

Term	Autumn
Unit	Four Operations
NC Objectives	<ul style="list-style-type: none">• multiply multi-digit numbers up to 4 digits by a two-digit whole number using the formal written method of long multiplication• 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 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• perform mental calculations, including with mixed operations and large numbers• identify common factors, common multiples and prime numbers• use their knowledge of the order of operations to carry out calculations involving the four operations• solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why Mathematics – key stages 1 and 2 40 Statutory requirements• solve problems involving addition, subtraction, multiplication and division• Use estimation to check answers to calculations and determine, in the context of a problem, an appropriate degree of accuracy.
Small Steps	<ul style="list-style-type: none">• Add and Subtract integers.• Multiple up to a 4 digit number by a 2 digit number.• Division• Division using factors.• Common factors.• Common multiples.• Prime number to 100.• Order of operations.• Mental calculations and estimations.• Reasons for known facts.
Key Vocabulary- Introduced at Year 6	Multiplication and Division: No new vocabulary introduced at Year 6
Reasoning and Problem Solving Vocabulary	Pattern, puzzle, problem, problem solving, mental, mentally, what could we try next?, how did you work it out?, show how you ..., explain your thinking, explain your method, describe the pattern, describe the rule, investigate, recognise, describe, draw, compare, sort, greatest value, least value, mental calculation, written calculation, statement, justify, make a statement, explain your reasoning



LEIGH ST PETER'S CE PRIMARY SCHOOL

Together with God we challenge minds, recognise talents, and build dreams

LOVE

RESPECT

TRUST

FRIENDSHIP

RESPONSIBILITY

PERSEVERANCE

RESILIENCE

Medium Term Plan – Unit Overview – Year 6

Term	Autumn
Unit	Ratio
NC Objectives	<ul style="list-style-type: none">• solve problems involving the relative sizes of two 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	<ul style="list-style-type: none">• Using correct language• Ratio and fractions• Introducing the ratio symbol• Calculating ratio• Using scale factors• Calculating scale factors• Ratio and proportion problems.
Key Vocabulary- Introduced at Year 6	Ratio
Reasoning and Problem Solving Vocabulary	Pattern, puzzle, problem, problem solving, mental, mentally, what could we try next?, how did you work it out?, show how you ..., explain your thinking, explain your method, describe the pattern, describe the rule, investigate, recognise, describe, draw, compare, sort, greatest value, least value, mental calculation, written calculation, statement, justify, make a statement, explain your reasoning



LEIGH ST PETER'S CE PRIMARY SCHOOL

Together with God we challenge minds, recognise talents, and build dreams

LOVE

RESPECT

TRUST

FRIENDSHIP

RESPONSIBILITY

PERSEVERANCE

RESILIENCE

Medium Term Plan – Unit Overview – Year 6

Term	Autumn
Unit	Algebra
NC Objectives	<ul style="list-style-type: none">• use simple formulae• generate and describe linear number sequences• express missing number problems algebraically• find pairs of numbers that satisfy an equation with two unknowns• enumerate possibilities of combinations of two variables.
Small Steps	<ul style="list-style-type: none">• Find a rule – one step• Find a rule – two step• Forming Expressions• Substitution• Formulae• Forming Equations• Solve one step equations• Find pairs of values• Enumerate possibilities
Key Vocabulary- Introduced at Year 6	Algebra: formula, formulae, equation, unknown, variable
Reasoning and Problem Solving Vocabulary	Pattern, puzzle, problem, problem solving, mental, mentally, what could we try next?, how did you work it out?, show how you ..., explain your thinking, explain your method, describe the pattern, describe the rule, investigate, recognise, describe, draw, compare, sort, greatest value, least value, mental calculation, written calculation, statement, justify, make a statement, explain your reasoning



LEIGH ST PETER'S CE PRIMARY SCHOOL

Together with God we challenge minds, recognise talents, and build dreams

LOVE

RESPECT

TRUST

FRIENDSHIP

RESPONSIBILITY

PERSEVERANCE

RESILIENCE

Medium Term Plan – Unit Overview – Year 6

Term	Autumn
Unit	Statistic
NC Objectives	<ul style="list-style-type: none">• interpret and construct pie charts and line graphs and use these to solve problems• calculate and interpret the mean as an average.
Small Steps	<ul style="list-style-type: none">• 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
Key Vocabulary- Introduced at Year 6	Statistic: pie chart, mean (mode, median, range as estimates for this), statistics, distribution
Reasoning and Problem Solving Vocabulary	Pattern, puzzle, problem, problem solving, mental, mentally, what could we try next?, how did you work it out?, show how you ..., explain your thinking, explain your method, describe the pattern, describe the rule, investigate, recognise, describe, draw, compare, sort, greatest value, least value, mental calculation, written calculation, statement, justify, make a statement, explain your reasoning



LEIGH ST PETER'S CE PRIMARY SCHOOL

Together with God we challenge minds, recognise talents, and build dreams

LOVE

RESPECT

TRUST

FRIENDSHIP

RESPONSIBILITY

PERSEVERANCE

RESILIENCE

Medium Term Plan – Unit Overview – Year 6

Term	Spring
Unit	Four Operations
NC Objectives	<ul style="list-style-type: none">• multiply multi-digit numbers up to 4 digits by a two-digit whole number using the formal written method of long multiplication• 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 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• perform mental calculations, including with mixed operations and large numbers• identify common factors, common multiples and prime numbers• use their knowledge of the order of operations to carry out calculations involving the four operations• solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why Mathematics – key stages 1 and 2 40 Statutory requirements• solve problems involving addition, subtraction, multiplication and division• Use estimation to check answers to calculations and determine, in the context of a problem, an appropriate degree of accuracy.
Small Steps	<ul style="list-style-type: none">• Add and Subtract integers.• Multiple up to a 4 digit number by a 2 digit number.• Division• Division using factors.• Common factors.• Common multiples.• Prime number to 100.• Order of operations.• Mental calculations and estimations.• Reasons for known facts.
Key Vocabulary- Introduced at Year 6	Multiplication and Division: No new vocabulary introduced at Year 6
Reasoning and Problem Solving Vocabulary	Pattern, puzzle, problem, problem solving, mental, mentally, what could we try next?, how did you work it out?, show how you ..., explain your thinking, explain your method, describe the pattern, describe the rule, investigate, recognise, describe, draw, compare, sort, greatest value, least value, mental calculation, written calculation, statement, justify, make a statement, explain your reasoning



LEIGH ST PETER'S CE PRIMARY SCHOOL

Together with God we challenge minds, recognise talents, and build dreams

LOVE

RESPECT

TRUST

FRIENDSHIP

RESPONSIBILITY

PERSEVERANCE

RESILIENCE

Medium Term Plan – Unit Overview – Year 6

Term	Spring
Unit	Geometry: Properties of Shape
NC Objectives	<ul style="list-style-type: none">• 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	<ul style="list-style-type: none">• Measure with a protractor• Introduce angles• Calculate angles• Vertically opposite angles• Angles in a triangle• Angles in special quadrilaterals• Angles in a regular polygon• Draw shapes accurately• Draw nets of 3D shapes.
Key Vocabulary- Introduced at Year 6	<p>Properties of Shape: circumference, concentric, arc, net, open, closed, intersecting, intersection, plane</p> <p>2D Shape: kite</p> <p>3D Shapes: decahedron, net, open, closed</p> <p>Position and Direction: reflex angle</p>
Reasoning and Problem Solving Vocabulary	Pattern, puzzle, problem, problem solving, mental, mentally, what could we try next?, how did you work it out?, show how you ..., explain your thinking, explain your method, describe the pattern, describe the rule, investigate, recognise, describe, draw, compare, sort, greatest value, least value, mental calculation, written calculation, statement, justify, make a statement, explain your reasoning



LEIGH ST PETER'S CE PRIMARY SCHOOL

Together with God we challenge minds, recognise talents, and build dreams

LOVE

RESPECT

TRUST

FRIENDSHIP

RESPONSIBILITY

PERSEVERANCE

RESILIENCE

Medium Term Plan – Unit Overview – Year 6

Term	Spring
Unit	Statistic
NC Objectives	<ul style="list-style-type: none">• interpret and construct pie charts and line graphs and use these to solve problems• calculate and interpret the mean as an average.
Small Steps	<ul style="list-style-type: none">• 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
Key Vocabulary- Introduced at Year 6	Statistic: pie chart, mean (mode, median, range as estimates for this), statistics, distribution
Reasoning and Problem Solving Vocabulary	Pattern, puzzle, problem, problem solving, mental, mentally, what could we try next?, how did you work it out?, show how you ..., explain your thinking, explain your method, describe the pattern, describe the rule, investigate, recognise, describe, draw, compare, sort, greatest value, least value, mental calculation, written calculation, statement, justify, make a statement, explain your reasoning



LEIGH ST PETER'S CE PRIMARY SCHOOL

Together with God we challenge minds, recognise talents, and build dreams

LOVE

RESPECT

TRUST

FRIENDSHIP

RESPONSIBILITY

PERSEVERANCE

RESILIENCE

Medium Term Plan – Unit Overview – Year 6

Term	Spring
Unit	Converting Units
NC Objectives	<ul style="list-style-type: none">• solve problems involving the calculation and conversion of units of measure, using decimal notation up to three decimal places where appropriate• 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 three decimal places• convert between miles and kilometres• recognise that shapes with the same areas can have different perimeters and vice versa• recognise when it is possible to use formulae for area and volume of shapes• calculate the area of parallelograms and triangles• calculate, estimate and compare volume of cubes and cuboids using standard units, including cubic centimetres (cm³) and cubic metres (m³), and extending to other units [for example, mm³ and km³].
Small Steps	<ul style="list-style-type: none">• Metric Measures• Convert Metric measures• Calculate with metric measures• Miles and kilometres• Imperial measures
Key Vocabulary- Introduced at Year 6	<p>Time: Greenwich Mean Time, British Summer Time, International Date Line</p> <p>Money: profit, loss</p>
Reasoning and Problem Solving Vocabulary	Pattern, puzzle, problem, problem solving, mental, mentally, what could we try next?, how did you work it out?, show how you ..., explain your thinking, explain your method, describe the pattern, describe the rule, investigate, recognise, describe, draw, compare, sort, greatest value, least value, mental calculation, written calculation, statement, justify, make a statement, explain your reasoning



LEIGH ST PETER'S CE PRIMARY SCHOOL

Together with God we challenge minds, recognise talents, and build dreams

LOVE

RESPECT

TRUST

FRIENDSHIP

RESPONSIBILITY

PERSEVERANCE

RESILIENCE

Medium Term Plan – Unit Overview – Year 6

Term	Spring
Unit	Measure: Perimeter, Area and Volume
NC Objectives	<ul style="list-style-type: none">• solve problems involving the calculation and conversion of units of measure, using decimal notation up to three decimal places where appropriate• 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 three decimal places• convert between miles and kilometres• recognise that shapes with the same areas can have different perimeters and vice versa• recognise when it is possible to use formulae for area and volume of shapes• calculate the area of parallelograms and triangles• calculate, estimate and compare volume of cubes and cuboids using standard units, including cubic centimetres (cm³) and cubic metres (m³), and extending to other units [for example, mm³ and km³].
Small Steps	<ul style="list-style-type: none">• Shapes – Same Area• Area and Perimeter• Area of a triangle• Area of a parallelogram• Volume – counting cubes• Volume of a cuboid.
Key Vocabulary- Introduced at Year 6	Length: yard, foot, feet, inch, inches, circumference Weight: tonne, pound, ounce Capacity and Volume: centilitre, cubic centimetres(cm ³), cubic metres (m ³), cubic millimetres (mm ³), cubic kilometres (km ³)
Reasoning and Problem Solving Vocabulary	Pattern, puzzle, problem, problem solving, mental, mentally, what could we try next?, how did you work it out?, show how you ..., explain your thinking, explain your method, describe the pattern, describe the rule, investigate, recognise, describe, draw, compare, sort, greatest value, least value, mental calculation, written calculation, statement, justify, make a statement, explain your reasoning



LEIGH ST PETER'S CE PRIMARY SCHOOL

Together with God we challenge minds, recognise talents, and build dreams

LOVE

RESPECT

TRUST

FRIENDSHIP

RESPONSIBILITY

PERSEVERANCE

RESILIENCE

Medium Term Plan – Unit Overview – Year 6

Term	Spring
Unit	Measure: Time and Money
NC Objectives	<ul style="list-style-type: none">• solve problems involving the calculation and conversion of units of measure, using decimal notation up to three decimal places where appropriate• 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 three decimal places
Small Steps	
Key Vocabulary- Introduced at Year 6	Time: Greenwich Mean Time, British Summer Time, International Date Line Money: profit, loss
Reasoning and Problem Solving Vocabulary	Pattern, puzzle, problem, problem solving, mental, mentally, what could we try next?, how did you work it out?, show how you ..., explain your thinking, explain your method, describe the pattern, describe the rule, investigate, recognise, describe, draw, compare, sort, greatest value, least value, mental calculation, written calculation, statement, justify, make a statement, explain your reasoning



LEIGH ST PETER'S CE PRIMARY SCHOOL

Together with God we challenge minds, recognise talents, and build dreams

LOVE

RESPECT

TRUST

FRIENDSHIP

RESPONSIBILITY

PERSEVERANCE

RESILIENCE

Medium Term Plan – Unit Overview – Year 6

Term	Spring
Unit	Statistic
NC Objectives	<ul style="list-style-type: none">• interpret and construct pie charts and line graphs and use these to solve problems• calculate and interpret the mean as an average.
Small Steps	<ul style="list-style-type: none">• 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
Key Vocabulary- Introduced at Year 6	Statistic: pie chart, mean (mode, median, range as estimates for this), statistics, distribution
Reasoning and Problem Solving Vocabulary	Pattern, puzzle, problem, problem solving, mental, mentally, what could we try next?, how did you work it out?, show how you ..., explain your thinking, explain your method, describe the pattern, describe the rule, investigate, recognise, describe, draw, compare, sort, greatest value, least value, mental calculation, written calculation, statement, justify, make a statement, explain your reasoning



LEIGH ST PETER'S CE PRIMARY SCHOOL

Together with God we challenge minds, recognise talents, and build dreams

LOVE

RESPECT

TRUST

FRIENDSHIP

RESPONSIBILITY

PERSEVERANCE

RESILIENCE

Medium Term Plan – Unit Overview – Year 6

Term	Spring
Unit	Measure: Perimeter, Area and Volume
NC Objectives	<ul style="list-style-type: none">• solve problems involving the calculation and conversion of units of measure, using decimal notation up to three decimal places where appropriate• 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 three decimal places• convert between miles and kilometres• recognise that shapes with the same areas can have different perimeters and vice versa• recognise when it is possible to use formulae for area and volume of shapes• calculate the area of parallelograms and triangles• calculate, estimate and compare volume of cubes and cuboids using standard units, including cubic centimetres (cm³) and cubic metres (m³), and extending to other units [for example, mm³ and km³].
Small Steps	<ul style="list-style-type: none">• Shapes – Same Area• Area and Perimeter• Area of a triangle• Area of a parallelogram• Volume – counting cubes• Volume of a cuboid.
Key Vocabulary- Introduced at Year 6	Length: yard, foot, feet, inch, inches, circumference Weight: tonne, pound, ounce Capacity and Volume: centilitre, cubic centimetres(cm ³), cubic metres (m ³), cubic millimetres (mm ³), cubic kilometres (km ³)
Reasoning and Problem Solving Vocabulary	Pattern, puzzle, problem, problem solving, mental, mentally, what could we try next?, how did you work it out?, show how you ..., explain your thinking, explain your method, describe the pattern, describe the rule, investigate, recognise, describe, draw, compare, sort, greatest value, least value, mental calculation, written calculation, statement, justify, make a statement, explain your reasoning



LEIGH ST PETER'S CE PRIMARY SCHOOL

Together with God we challenge minds, recognise talents, and build dreams

LOVE

RESPECT

TRUST

FRIENDSHIP

RESPONSIBILITY

PERSEVERANCE

RESILIENCE

Medium Term Plan – Unit Overview – Year 6

Term	Spring
Unit	Geometry: Properties of Shape
NC Objectives	<ul style="list-style-type: none">draw 2-D shapes using given dimensions and anglesrecognise, describe and build simple 3-D shapes, including making netscompare and classify geometric shapes based on their properties and sizes and find unknown angles in any triangles, quadrilaterals, and regular polygonsillustrate and name parts of circles, including radius, diameter and circumference and know that the diameter is twice the radius
Small Steps	<ul style="list-style-type: none">Draw shapes accuratelyDraw nets of 3D shapes.
Key Vocabulary- Introduced at Year 6	Properties of Shape: circumference, concentric, arc, net, open, closed, intersecting, intersection, plane 2D Shape: kite 3D Shapes: decahedron, net, open, closed Position and Direction: reflex angle
Reasoning and Problem Solving Vocabulary	Pattern, puzzle, problem, problem solving, mental, mentally, what could we try next?, how did you work it out?, show how you ..., explain your thinking, explain your method, describe the pattern, describe the rule, investigate, recognise, describe, draw, compare, sort, greatest value, least value, mental calculation, written calculation, statement, justify, make a statement, explain your reasoning



LEIGH ST PETER'S CE PRIMARY SCHOOL

Together with God we challenge minds, recognise talents, and build dreams

LOVE

RESPECT

TRUST

FRIENDSHIP

RESPONSIBILITY

PERSEVERANCE

RESILIENCE

Medium Term Plan – Unit Overview – Year 6

Term	Spring
Unit	Fractions, Percentages and Decimals
NC Objectives	<ul style="list-style-type: none">• use common factors to simplify fractions; use common multiples to express fractions in the same denomination• compare and order fractions, including fractions > 1• add and subtract fractions with different denominators and mixed numbers, using the concept of equivalent fractions• multiply simple pairs of proper fractions, writing the answer in its simplest form [for example, $4 \frac{1}{2} \times 2 \frac{1}{2} = 8 \frac{1}{2}$]• divide proper fractions by whole numbers [for example, $3 \frac{1}{2} \div 2 = 6 \frac{1}{4}$]• associate a fraction with division and calculate decimal fraction equivalents [for example, 0.375] for a simple fraction [for example, $\frac{3}{8}$]• identify the value of each digit in numbers given to three decimal places and multiply and divide numbers by 10, 100 and 1000 giving answers up to three decimal places• multiply one-digit numbers with up to two decimal places by whole numbers• use written division methods in cases where the answer has up to two decimal places• solve problems which require answers to be rounded to specified degrees of accuracy• recall and use equivalences between simple fractions, decimals and percentages, including in different contexts.
Small Steps	<ul style="list-style-type: none">• 3 decimal places• Multiply by 10, 100 and 1,000• Divide by 10, 100 and 1,000• Multiply decimals by integers• Division to solve problems• Decimals as fractions• Fractions to decimals
Key Vocabulary- Introduced at Year 6	Fractions, Decimals and Percentages: ratio
Reasoning and Problem Solving Vocabulary	Pattern, puzzle, problem, problem solving, mental, mentally, what could we try next?, how did you work it out?, show how you ..., explain your thinking, explain your method, describe the pattern, describe the rule, investigate, recognise, describe, draw, compare, sort, greatest value, least value, mental calculation, written calculation, statement, justify, make a statement, explain your reasoning



LEIGH ST PETER'S CE PRIMARY SCHOOL

Together with God we challenge minds, recognise talents, and build dreams

LOVE

RESPECT

TRUST

FRIENDSHIP

RESPONSIBILITY

PERSEVERANCE

RESILIENCE

Medium Term Plan – Unit Overview – Year 6

Term	Summer
Unit	Place Value
NC Objectives	<ul style="list-style-type: none">• read, write, order and compare numbers up to 10 000 000 and determine the value of each digit ♣ round any whole number to a required degree of accuracy• use negative numbers in context, and calculate intervals across zero• solve number and practical problems that involve all of the above.
Small Steps	<ul style="list-style-type: none">• Numbers to 10,000• Numbers to 100,000• Numbers to a million• Numbers to ten million• Compare and order any number• Round numbers to 10, 100 and 1,000• Round any number• Negative Numbers
Key Vocabulary- Introduced at Year 6	Number and Place Value: factorise, prime factor, ascending/descending order, digit total
Reasoning and Problem Solving Vocabulary	Pattern, puzzle, problem, problem solving, mental, mentally, what could we try next?, how did you work it out?, show how you ..., explain your thinking, explain your method, describe the pattern, describe the rule, investigate, recognise, describe, draw, compare, sort, greatest value, least value, mental calculation, written calculation, statement, justify, make a statement, explain your reasoning



LEIGH ST PETER'S CE PRIMARY SCHOOL

Together with God we challenge minds, recognise talents, and build dreams

LOVE

RESPECT

TRUST

FRIENDSHIP

RESPONSIBILITY

PERSEVERANCE

RESILIENCE

Medium Term Plan – Unit Overview – Year 6

Term	Summer
Unit	Four Operations
NC Objectives	<ul style="list-style-type: none">• multiply multi-digit numbers up to 4 digits by a two-digit whole number using the formal written method of long multiplication• 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 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• perform mental calculations, including with mixed operations and large numbers• identify common factors, common multiples and prime numbers• use their knowledge of the order of operations to carry out calculations involving the four operations• solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why Mathematics – key stages 1 and 2 40 Statutory requirements• solve problems involving addition, subtraction, multiplication and division• Use estimation to check answers to calculations and determine, in the context of a problem, an appropriate degree of accuracy.
Small Steps	<ul style="list-style-type: none">• Add and Subtract integers.• Multiple up to a 4 digit number by a 2 digit number.• Division• Division using factors.• Common factors.• Common multiples.• Prime number to 100.• Order of operations.• Mental calculations and estimations.• Reasons for known facts.
Key Vocabulary- Introduced at Year 6	Multiplication and Division: No new vocabulary introduced at Year 6
Reasoning and Problem Solving Vocabulary	Pattern, puzzle, problem, problem solving, mental, mentally, what could we try next?, how did you work it out?, show how you ..., explain your thinking, explain your method, describe the pattern, describe the rule, investigate, recognise, describe, draw, compare, sort, greatest value, least value, mental calculation, written calculation, statement, justify, make a statement, explain your reasoning