

Autumn 1: 38 lessons				
1 Chapter 1: Numbers to 10 Million				
INSET day	INSET day	Lesson 1: Reading and Writing Numbers to 10 Million To construct and record numbers to 10 000 000; to recognise value of digits to 10	Lesson 2: Comparing Numbers to 10 Million To compare numbers to 10 000 000 using place value.	Lesson 3: Comparing and Ordering Numbers to 10 Million To compare & order numbers to 10 000 000; to create combinations of numbers using a fixed number of digits.
2 Ch 1: Nos to 10 Million			Chapter 2: Four operations of whole numbers	
Lesson 4: Rounding Numbers To round numbers to 10 000 000 to the nearest million, hundred thousand and ten thousand.	Lesson 5: Rounding Numbers To round numbers to the nearest appropriate number up to & including millions; to determine when rounding is appropriate and to which value.	Chapter 1 review and consolidation To practise various concepts covered in the chapter	Lesson 1: Using Mixed Operations To use multiple operations and create expressions from a picture; to use the order of operations to solve expressions.	Lesson 2: Order of Operations To create and solve expressions using the four operations.
3 Chapter 2: Four operations of whole numbers				
Lesson 3: Multiplying by Tens To multiply numbers by multiples of 10; to use number bonds as a key strategy in multiplication.	Lesson 5: Multiplying by Two-Digit Numbers To multiply 3- & 4-digit numbers by 2-digit numbers-no regrouping or renaming; to use both number bonds & column method	Lesson 6: Multiplying a 3-Digit Number by a 2-Digit Number To multiply 3&4-digit numbers by 2-digit nos. - regrouping & renaming; to use number bonds & pattern recognition for multiplication.	Lesson 7: Multiplying a 4-Digit Number by a 2-Digit Number To multiply 3- and 4-digit numbers by 2-digit numbers with regrouping and renaming; to use number bonds and the column method	Lesson 8: Multiplying by Two-Digit Numbers To estimate products of multiplying 3- & 4-digit numbers by 2-digit numbers; to use knowledge of multiplication to create specific products.
4 Chapter 2: Four operations of whole numbers				
Lesson 9: Dividing by Two-Digit Numbers To divide 3-digit by 2-digit numbers using strategies; to use no. bonds, long division & bar models to divide by 2-digit numbers.	Lesson 10: Dividing by Two-Digit Numbers To divide 4-digit numbers by 2-digit numbers; to use number bonds and long division as the key strategies.	Lesson 11: Dividing by Two-Digit Numbers To divide 4-digit numbers by 2-digit numbers using a variety of methods; to use no. bonds, long & short division as methods.	Lesson 12: Dividing by Two-Digit Numbers To divide 3-digit by 2-digit numbers giving rise to remainders; to use number bonds, long & short division as key to solve division problems.	Lesson 13: Dividing by Two-Digit Numbers with Remainder To divide 4-digit numbers by 2-digit numbers with remainder; to represent remainder as part of whole amount of money/decimal
5 Chapter 2: Four operations of whole numbers				
Lesson 14: Solving Word Problems Using Bar Models To use bar model heuristic to solve word problems involving multiplication & division	Lesson 15: Solving Word Problems Using Patterns To solve word problems using division as main strategy & pictorial to support word problems.	Lesson 16: Solving Word Problems Using Multiple Methods To solve word problems with multiple operations, including multiplication & division.	Lesson 17: Finding Common Multiples To find common multiples in real-life; use common multiples in with knowledge of time.	Lesson 18: Finding Common Multiples To use common multiples to solve problems & organise thinking in tables & lists.
6 Chapter 2: Four operations of whole numbers				
Lesson 19: Finding Common Factors To find largest common factor of 3-digit numbers; to use $x \div$ division for common factor.	Lesson 20: Finding Common Factors To find the common factor of 3-digit numbers; to use $x \div$ division for common factor.	Lesson 21: Finding Prime Numbers To use prime nos. to create other numbers; to explore prime numbers >100	Lesson 22: Finding Prime Numbers To explore prime numbers using concrete materials; to find prime numbers w' multiplication/division.	Consolidation To be used if lessons take longer than expected or topic needs to be revisited.
7 Chapter 3: Fractions				
Chapter 2 review and consolidation To practise various concepts covered in the chapter	Lesson 1: Simplifying Fractions Using common Factors To use concrete materials to simplify fractions; to recognise equivalence in fractions to $\frac{1}{4}$.	Lesson 2: Simplify Fractions Using Common Factors To simplify fractions with division & common factors & represent fractions w' concrete & pictorial.	Lesson 3: Comparing and Ordering Proper Fractions To compare fractions and place them in order from smallest to largest.	Lesson 4: Comparing and Ordering Improper Fractions To compare and order fractions by finding common denominators.
8 Chapter 3: Fractions				
Lesson 5: Comparing and Ordering Fractions and Mixed Numbers To compare and order fractions using common factors.	Lesson 6: Adding and Subtracting Unlike Fractions Add & subtract fractions w' different denominators & pictorial to compare/add/subtract fraction	Lesson 7: Adding and Subtracting Unlike Fractions To add and subtract fractions with different denominators.	Lesson 8: Adding and Subtracting Mixed Numbers To add & subtract mixed nos, incl. fractions different denominators; to subtract from whole & add the remainder.	Consolidation Embed addition and subtraction of fractions To be used if lessons take longer than expected or topic needs to be revisited.
Half term break (Homework: multiplication to x12 and related division facts; telling time to nearest minute)				

Autumn 2: 34 lessons				
1 Chapter 3: Fractions				
INSET day	Lesson 9: Adding and Subtracting Mixed Numbers To add and subtract fractions with different denominators; to add and subtract mixed numbers.	Lesson 10: Multiplying Pairs of Proper Fractions To multiply fractions using pictorial representations and abstract methods.	Lesson 11: Multiplying Pairs of Proper Fractions To determine if the commutative law applies to fractions; to multiply fractions using concrete and pictorial.	Lesson 12: Multiplying Pairs of Proper Fractions To use concrete to understand & solve the multip'n of fractions; to simplify equations using pattern blocks.
2 Chapter 3: Fractions				
Lesson 13: Dividing a Fraction by a Whole Number To divide a fraction by a whole number; to use pictorial to divide whole numbers into fractions.	Lesson 14: Dividing a Fraction by a Whole Number To divide fractions by whole nos. concrete & pictorial; to divide fractions (when numerator & divisor not easily divisible).	Lesson 15: Dividing a Fraction by a Whole Number To divide fractions by a whole number; to use pictorial to support division.	Consolidation of fractions (incl. fractions of amounts - non-unit) To be used if lessons take longer than expected or topic needs to be revisited.	Chapter 2 review and consolidation To practise various concepts covered in the chapter
3 Chapter 4: Decimals				
AUTUMN TEST: arithmetic	AUTUMN TEST: reasoning	AUTUMN TEST: reasoning	COMBINED LESSONS: Lesson 1: Writing and Reading Decimals To read & write decimals to thousandths; concrete to represent decimals. Lesson 2: Dividing Whole Numbers by Multiples of 10 To divide whole numbers by larger whole numbers; Dienes 1/10s, 1/100s & 1/1000s.	Lesson 3: Dividing Whole Numbers To be able to associate a fraction with division, and calculate decimal fraction equivalents for a simple fraction.
4 Chapter 4: Decimals				
Lesson 5: Writing Fractions as Decimals To write fractions as decimals; to use long division as the key strategy	Lesson 6: Multiplying Decimals Without Renaming To multiply whole nos including decimal by whole numbers; to use partition & worded method.	Lesson 7: Multiplying Decimals With Renaming To multiply whole nos that include a decimal by whole numbers; to use partitioning & worded method.	Lesson 8: Multiplying Decimals With Renaming To multiply decimals by whole numbers including regrouping and renaming.	Lesson 10: Dividing Decimals Without Renaming To divide decimals using number bonds and number discs as the key strategies. (Method 2)
5 Chapter 4: Decimals				
Lesson 11: Dividing Decimals With Renaming To divide decimals using bar models, number bonds & long division as key strategies, including regrouping & renaming.	Lesson 12: Multiplying a Decimal by a 2-Digit Whole Number To multiply decimals by a 2-digit whole number using number discs and the column method.	Lesson 13: Dividing a Decimal by a 2-Digit Whole Number To divide decimals by 2-digit numbers using number bonds and the worded method.	Lesson 14: Dividing a Decimal by a 2-Digit Whole Number To divide decimals by 2-digit whole numbers using number bonds and the worded method.	Consolidation To be used if lessons take longer than expected or topic needs to be revisited.
6 Chapter 5: Measurements				
Chapter 4 review and consolidation To practise various concepts covered in the chapter	Lesson 1: Converting Units of Length: Millimetres and Centimetres To convert common measurements to metres, centimetres and millimetres.	Lesson 2: Converting Units of Length: Metres and Centimetres To convert units of measure into different units; to use knowledge of decimals & fractions to convert.	Lesson 3: Converting Units of Length: Kilometres and Metres To convert metres into kilometres as units of measure.	Lesson 4: Converting Units of Length: Miles and Kilometres To convert distances between miles and kilometres.
7 Chapter 5: Measurements				
Lesson 5: Converting Units of Mass To convert units of mass from grams to kilograms using decimals & fractions.	Lesson 6: Converting Units of Volume To convert units of volume from millilitres to litres.	Lesson 7: Converting Units of Time To convert units of time from minutes to hours; to represent time using 24-hour notation.	Chapter 5 review and consolidation To practise various concepts covered in the chapter	Consolidation To be used if lessons take longer than expected or topic needs to be revisited.
Christmas holiday break				

Spring 1: 29 lessons				
1 Chapter 5: Measurements				
INSET day	ADDITIONAL LESSON: (4-operations)	ADDITIONAL LESSON: (money)	ADDITIONAL LESSON: (time & measures)	ADDITIONAL LESSON: (fractions)
2 Chapter 7: Percentages				
Revision and Mid-year Tests (A)	Revision and Mid-year Tests (A)	ADDITIONAL LESSON: Problem solving with percentages	ADDITIONAL LESSON: Problem solving with percentages	ADDITIONAL LESSON: Fractions, decimals and equivalence problems
3 Chapter 7: Percentage				
Lesson 1: Finding the Percentage of a Number To find the % of a whole number using division and multiplication; to use bar modelling as a pictorial approach to calculating %.	Lesson 2: Finding the Percentage of a Quantity To find the % of a quantity; to use bar model diagrams to support the division and multiplication of numbers towards the percentage.	Lesson 3: Finding Percentage Change To find % change in an amount over time; to calculate % change where the number gives rise to a decimal.	Lesson 4: Using Percentage to Compare To use percentage, bar models and fractions to compare amounts.	ADDITIONAL LESSON: % of amounts
4 Chapter 8: Ratio				
Chapter 7 review and consolidation To practise various concepts covered in the chapter.	Lesson 1: Comparing Quantities To use ratios and fractions to compare objects; to find the relationship between ratios, percentages and fractions.	Lesson 2: Comparing Quantities To determine the ratio of a quantity using concrete materials; to simplify ratios using concrete materials in addition to division	Lesson 3 Comparing Several Quantities To express proportions using ratio.	Lesson 4: Finding Quantities from Ratios To be able to use ratio to count quantities.
5 Chapter 8: Ratio				
Lesson 5: Ratios with Measurements To be able to use ratio to measure quantities.	Lesson 7: Comparing Ratios to Find a Quantity To be able to solve problems involving ratio.	Lesson 8: Word Problems Involving Ratio To be able to solve problems involving ratio.	Chapter 8 review and consolidation To practise various concepts covered in the chapter.	Lesson 1: Describing a Pattern To determine a pattern using concrete materials and pictorial; to use a table to identify a repeating pattern; to express a rule using letter or symbol
6 Chapter 8: Ratio				
Lesson 2: Describing a Pattern To determine a pattern using concrete materials and pictorial; to use a table to identify a repeating pattern; to express the relationship between consecutive numbers in terms of a letter or symbol	Chapter 9: Algebra			
	Lesson 3: Describing a Pattern To determine a pattern using concrete materials & pictorial; to use a table to identify a repeating pattern	Lesson 4: Describing a Pattern To express the relationship between consecutive numbers in terms of a letter or symbol; including using a number or letter for multiplication	Lesson 5: Writing Algebraic Expressions To use a table to identify a pattern; to write algebraic expressions using each of the four operations.	Lesson 6: Writing Algebraic Expressions To use examples to identify rules; to write algebraic expressions using each of the four operations, to evaluate algebraic expressions including the use of inverse operations.
Half term				

Spring 2: 30 lessons				
1 Chapter 9: Algebra				
Lesson 9: Using Formulae To use formulae to solve problems; to replace a letter/variable with a number then solve the equation; to use inverse operations to solve equations.	ADDITIONAL LESSON: Algebra	Consolidation To be used if lessons take longer than expected or topic needs to be revisited.	ADDITIONAL LESSON: Revise names, properties of 2D and 3D shapes	SPRING TEST: arithmetic
2 Chapter 10: Perimeter & Area				
SPRING TEST: reasoning	SPRING TEST: reasoning	Lesson 1: Finding the Area & Perimeter of Rectangles To find area & perimeter of rectangles; calculate perimeter using known area and vice versa.	Lesson 2: Finding the Base and Height of Triangles To use prior knowledge of area to find & solve area of a triangle; to use formula for area of a rectangle to solve problems involving triangles.	Lesson 3: Finding the Area of Triangles To calculate the area of a triangle using a formula; to calculate the area of a triangle in multiple ways.
3 Ch10: Area & Perim		Chapter 11: Volume		Chapter 12: Geometry
Lesson 4: Finding the Area of Parallelograms To calculate the area of a parallelogram using an understanding of triangles; to use concrete materials to find the area of a parallelogram.	COMBINED LESSON: Lesson 1: Finding the Volume of Cubes and Cuboids To find the volume of cubes and cuboids using materials. Lesson 2: Finding the Volume of Cuboids To determine formula for volume of cubes & cuboids & apply it to calculate the volume of shapes.	Lesson 4: Finding the Volume of Cuboids To be able to calculate, estimate and compare the volume of cubes and cuboids.	Lesson 1: Investigating Vertically Opposite Angles To investigate opposite angles; to solve problems with prior angles knowledge.	Lesson 2: Solving Problems Involving Angles To solve problems involving angles using the bar model heuristic; to solve problems involving angles without protractors.
4 Chapter 12: Geometry				Ch15: Negative Nos
Lesson 3: Investigating Angles in Triangles To determine and show the sum of the angles inside a triangle.	Lesson 4: Investigating Angles in Quadrilaterals To investigate & find angles in quads.	Lesson 6: Naming Parts of a Circle To name parts of circles and know that the diameter is twice the radius.	Lesson 7: Solving Problems Involving Angles in a Circle To solve problems involving angles in a circle.	Lesson 1: Adding and Subtracting Negative Numbers To be able to use negative numbers in context, and calculate intervals across zero.
5 Ch15: Negative Nos		Chapter 13: Position and Movement		
Lesson 2: Using Negative Numbers To be able to use negative numbers in context, and calculate intervals across zero.	Lesson 1: Showing Negative Numbers To be able to use negative numbers in context and calculate intervals across zero.	Lesson 2: Describing Position To be able to describe positions on a full coordinate grid.	Lesson 4: Drawing Polygons on a Coordinate Grid To be able to draw simple shapes on a coordinate plane.	Lesson 5: Describing Translations To describe the translation of shapes on a coordinate grid.
6 Chapter 13: Position & Movement		Ch 14: Graphs & averages		
Lesson 6: Describing Reflections To be able to reflect shapes in a mirror line.	Consolidation of translation & reflection/using co-ordinates	Lesson 1: Understanding Averages To calculate the average (mean) of sets of values.	Lesson 2: Calculating Mean To calculate the mean.	Lesson 3: Calculating Mean To calculate the mean.
Easter holiday break				

Summer 1: 22 lessons (check INSET)				
1 Chapter 14: Graphs and averages				
Easter Monday	INSET	COMBINED LESSONS: Lesson 5: Reading Pie Charts To be able to read and interpret pie charts when they are split into equal parts. Lesson 6: Reading Pie Charts To be able to read and interpret pie charts when they are split into simple fractions.	Lesson 7: Reading Pie Charts To be able to read and interpret pie charts when they are split into percentages.	Lesson 9: Reading Line Graphs To read line graphs; to interpret the information in line graphs.
2				
Pracitce Paper: arithmetic	Pracice Paper: reasoning	Practice Paper: reasoning	Consolidation To be used if lessons take longer than expected or topic needs to be revisited.	Consolidation To be used if lessons take longer than expected or topic needs to be revisited.
3				
BANK HOLIDAY	Consolidation To be used if lessons take longer than expected or topic needs to be revisited.	Consolidation To be used if lessons take longer than expected or topic needs to be revisited.	Consolidation To be used if lessons take longer than expected or topic needs to be revisited.	Consolidation To be used if lessons take longer than expected or topic needs to be revisited.
4 SATs WEEK				
Consolidation To be used if lessons take longer than expected or topic needs to be revisited.	Consolidation To be used if lessons take longer than expected or topic needs to be revisited.	<u>Wednesday: arithmetic & reasoning paper 1</u>	<u>Thursday: reasoning paper 2</u>	
5 Chapter 11: Volume				
RECAP Lesson 1 and 2: Finding the Volume of Cubes and Cuboids	Lesson 3: Finding the Volume of Cubes and Cuboids To be able to estimate the volume of cubes and cuboids, and calculate volume using a formula.	Lesson 5: Solving Problems Involving the Volume of Solids To be able to calculate, estimate and compare the volume of cubes and cuboids.	Consolidation day: To be used if lessons take longer than expected or a topic needs to be revisited.	Chapter 11 review and consolidation To practise various concepts covered in the chapter.
Break for half term				

Summer 2: 37 lessons				
1 Chapter 12: Geometry				
Lesson 5: Solving Problems Involving Angles in a Circle <u>over 2 days</u> To be able to solve problems involving angles in a circle.	Lesson 5: Solving Problems Involving Angles in a Circle <u>over 2 days</u>	Lesson 8: Drawing Quadrilaterals To be able to draw quadrilaterals using given dimensions.	Lesson 9: Drawing Triangles To be able to draw triangles using given dimensions and angles.	Lesson 10: Drawing Triangles To be able to solve problems involving similar shapes where the scale factor is known or can be found.
2 Chapter 8: Ratio				
Consolidation day: To be used if lessons take longer than expected or a topic needs to be revisited.	Lesson 6: Finding Ratios To be able to compare quantities by writing a ratio.	Lesson 9: Word Problems Involving Ratio To be able to solve problems involving ratio.	Lesson 10: Word Problems Involving Ratio <u>over 2 days</u> To be able to solve problems involving ratio.	Lesson 10: Word Problems Involving Ratio <u>over 2 days</u>
3 Chapter 9: Algebra				Ch.10: Area & Perimeter
Lesson 7: Writing and Evaluating Algebraic Expressions To be able to express missing number problems algebraically.	Lesson 8: Writing Formulae To be able to use simple formulae.	Consolidation day: To be used if lessons take longer than expected or a topic needs to be revisited.	Chapter 9 review and consolidation To practise various concepts covered in the chapter.	Chapter 10 review and consolidation To practise various concepts covered in the chapter.
4 Chapter 12: Geometry				
Lesson 11: Drawing Nets of 3-D Shapes <u>over 2 days</u> To be able to recognise and make nets for 3-D shapes.	Lesson 11: Drawing Nets of 3-D Shapes <u>over 2 days</u>	Lesson 12: Drawing Nets of 3-D Shapes <u>over 2 days</u> To be able to recognise and make nets for 3-D shapes.	Lesson 12: Drawing Nets of 3-D Shapes <u>over 2 days</u>	Chapter 12 review and consolidation To practise various concepts covered in the chapter.
5 Chapter 13: Position and movement				
Lesson 3: Describe Position <u>over 2 days</u> To be able to describe positions on a full coordinate grid.	Lesson 3: Describe Position <u>over 2 days</u>	Lesson 7: Describing Movements To reposition objects so they can be reflected in the x and y axis as the mirror line.	Lesson 8: Describing Movements To describe the movement of objects using the terms 'translation' and 'reflection'.	Lesson 9: Using Algebra to Describe Movements <u>over 2 days</u> To use algebra to describe the positions of coordinates in relationship to one another.
6 Chapter 13: Position and movement				
Lesson 9: Using Algebra to Describe Movements <u>over 2 days</u>	Lesson 10: Using Algebra to Describe Movements <u>over 2 days</u> To represent translation and reflection using algebraic notation.	Lesson 10: Using Algebra to Describe Movements <u>over 2 days</u>	Consolidation day: To be used if lessons take longer than expected or a topic needs to be revisited.	Chapter 13 review and consolidation To practise various concepts covered in the chapter.
7 Chapter 14: Graphs and averages				
Lesson 8: Reading Pie Charts To be able to interpret pie charts based on basic geometry.	Lesson 10: Reading Line Graphs To be able to interpret line graphs and use these to solve problems.	Lesson 11: Converting Miles into Kilometres To convert miles into kilometres and vice versa.	Chapter 14 review and consolidation To practise various concepts covered in the chapter.	Revision and Mid-year Tests (B)
8				
Revision and Mid-year Tests (B)	Revision and Mid-year Tests (B)	Summer break		
Summer holiday break				