Year 6 coverage overview 2023-24

Quality First Education Trust

Autumn 1: 33 lessons

1 Chapter 1: Numbers to 10 Million *(Factual fluency: including number sequences)*

INSET day Q1E	**INSET day school**	**Lesson 1: Reading and Writing Numbers to 10 Million** To construct and record numbers to 10 000 000; to recognise the value of digits to 10 000 000.	**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 Chapter 1: Nos to 10 Million *Ff: incl. rounding measures/ money)*   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 and 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   *(Factual fluency: including place value ordering)*

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- and 4-digit numbers by 2-digit numbers without 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 numbers with 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   *(Factual fluency: including x/ ÷ by 10, 100, 1000)*

Lesson 9: Dividing by Two-Digit Numbers To divide 3-digit by 2-digit numbers using strategies; to use number bonds, long division & bar models to facilitate division 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 giving rise to a remainder; to represent the remainder as part of a whole amount of money/decimal

5 Chapter 2: Four operations of whole numbers *(Factual fluency: including inverse operations)*

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 the main strategy; pictorial representations to support word problems.	**Lesson 16: Solving Word Problems Using Multiple Methods** To solve word problems involving multiple operations, including multiplication & division.	**Consolidation of 4 operations** To be used if lessons take longer than expected or topic needs to be revisited.	**Lesson 17: Finding Common Multiples** To find common multiples in real-life; use common multiples in tandem with knowledge of time.

6 Chapter 2: Four operations of whole numbers *(Factual fluency: including cube/square numbers)*

Lesson 18: Finding Common Multiples To use common multiples to solve problems; to organise thinking into tables and lists.	**Lesson 19: Finding Common Factors** To find the largest common factor of 3-digit numbers; to use x ÷ division for common factor.	**Lesson 20: Finding Common Factors** To find the common factor of 3-digit numbers; to use x ÷ 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 identify prime numbers using multiplication or division.

7 *(FF: including factors/multiples/prime)*   Chapter 3: Fractions

Consolidation of multiples, factors and prime numbers 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	**Lesson 1: Simplifying Fractions Using common Factors** To use concrete materials to simplify fractions; to recognise equivalence in fractions to 1/4.	**Lesson 2: Simplify Fractions Using Common Factors** To simplify fractions using division & common factors; to represent fractions using concrete material & pictorial.	**Lesson 3: Comparing and Ordering Proper Fractions** To compare fractions and place them in order from smallest to largest.

Half term break

Year 6 coverage overview 2023-24

Autumn 2: 38 lessons

1   Chapter 3: Fractions *(Factual fluency: multiplying w' known facts)*

	Lesson 4: Comparing and Ordering Improper Fractions	Lesson 5: Comparing and Ordering Fractions and Mixed Numbers	Lesson 6: Adding and Subtracting Unlike Fractions	Lesson 7: Adding and Subtracting Unlike Fractions
INSET day Q1E	To compare and order fractions by finding common denominators.	To compare and order fractions using common factors.	Add & subtract fractions w' different denomintors; using pictorial to compare add/subtract fraction	To add and subtract fractions with different denominators.

2   Chapter 3: Fractions

Lesson 8: Adding and Subtracting Mixed Numbers	Lesson 9: Adding and Subtracting Mixed Numbers	Lesson 10: Multiplying Pairs of Proper Fractions	Lesson 11: Multiplying Pairs of Proper Fractions	Lesson 12: Multiplying Pairs of Proper Fractions
To add & subtract mixed nos, incl. fractions different denominators; to subtract from whole & add the remainder.	To add and subtract fractions with different denominators; to add and subtract mixed numbers.	To multiply fractions using pictorial representations and abstract methods.	To determine if the commutative law applies to fractions; to multiply fractions using concrete and pictorial.	To use concrete to understand & solve the multip'n of fractions; to simplify equations using pattern blocks.

3   Chapter 3: Fractions

Lesson 13: Dividing a Fraction by a Whole Number	Lesson 14: Dividing a Fraction by a Whole Number	Lesson 15: Dividing a Fraction by a Whole Number	Consolidation of fractions	Chapter 2 review and consolidation
To divide a fraction by a whole number; to use pictorial to divide whole numbers into fractions.	To divide fractions by whole nos. concrete & pictorial; to divide fractions (when numerator & divisor not easily divisible).	To divide fractions by a whole number; to use pictorial to support division.	To be used if lessons take longer than expected or topic needs to be revisited.	To practise various concepts covered in the chapter

4   Chapter 4: Decimals

COMBINED LESSONS: Lesson 1: Writing and Reading Decimals	Lesson 3: Dividing Whole Numbers			
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.	To be able to associate a fraction with division, and calculate decimal fraction equivalents for a simple fraction.	**AUTUMN TEST: arithmetic**	**AUTUMN TEST: reasoning**	**AUTUMN TEST: reasoning**

5   Chapter 4: Decimals

Lesson 5: Writing Fractions as Decimals	Lessons 6: Multiplying Decimals Without Renaming	Lesson 7: Multiplying Decimals With Renaming	Lesson 8: Multiplying Decimals With Renaming	Lesson 10: Dividing Decimals Without Renaming
To write fractions as decimals; to use long division as the key strategy	To multiply whole nos including decimal by whole numbers; to use partition & worded method.	To multiply whole nos that include a decimal by whole numbers; to use partitioning & worded method.	To multiply decimals by whole numbers including regrouping and renaming.	To divide decimals using number bonds and number discs as the key strategies. (Method 2)

6   Chapter 4: Decimals

Lesson 11: Dividing Decimals With Renaming	Lesson 12: Multiplying a Decimal by a 2-Digit Whole Number	Lesson 13: Dividing a Decimal by a 2-Digit Whole Number	Lesson 14: Dividing a Decimal by a 2-Digit Whole Number	Consolidation
To divide decimals using bar models, number bonds & long division as key strategies, including regrouping & renaming.	To multiply decimals by a 2-digit whole number using number discs and the column method.	To divide decimals by 2-digit numbers using number bonds and the worded method.	To divide decimals by 2-digit whole numbers using number bonds and the worded method.	To be used if lessons take longer than expected or topic needs to be revisited.

7   Chapter 4: Decimal   Chapter 5: Measurements

Consolidation	Chapter 4 review and consolidation	Lesson 1: Converting Units of Length: Millimetres and Centimetres	Lesson 2: Converting Units of Length: Metres and Centimetres	Lesson 3: Converting Units of Length: Kilometres and Metres
To be used if lessons take longer than expected or topic needs to be revisited.	To practise various concepts covered in the chapter	To convert common measurements to metres, centimetres and millimetres.	To convert units of measure into different units; to use knowledge of decimals & fractions to convert.	To convert metres into kilometres as units of measure.

8   Chapter 5: Measurements *(Factual fluency: including reading clocks/time)*

Lesson 4: Converting Units of Length: Miles and Kilometres	Lesson 5: Converting Units of Mass	Lesson 6: Converting Units of Volume	Consolidation	Christmas break
To convert distances between miles and kilometres.	To convert units of mass from grams to kilograms using decimals & fractions.	To convert units of volume from millilitres to litres.	To be used if lessons take longer than expected or topic needs to be revisited.	

Christmas holiday break

Year 6 coverage overview 2023-24

Spring 1: 24 lessons

1 Chapter 5: Measurements *(Factual Fluency: Roman Numerals)* | Non-MNP Word problems

INSET day school	**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	**Power Maths Practice book C, word problems**	**Power Maths Practice Book C, word problems**

2 Non-MNP Word problems

Word problems	Word problems	**Revision and Mid-year Tests (A)**	**Revision and Mid-year Tests (A)**	**Revision and Mid-year Tests (A)**

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 %.	*ADDITIONAL LESSON: % of amounts (NB: Include focus on 1%)*	**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.

4 Chapter 7: Percentage | Chapter 8: Ratio

ADDITIONAL LESSON: Problem solving with percentages: Power Maths Practice Book C, p.66	**ADDITIONAL LESSON: Fractions, decimals and equivalence problems** Power Maths, Book 6B, Pearson p50	**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, percenages 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

5 Chapter 8: Ratio *(Factual fluency: including simple 10%/1% of amounts)*

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.	**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.

Half term

Quality First Education Trust

Spring 2: 29 lessons				
1 Chapter 8: Ratio	**Chapter 9: Algebra**			
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	**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 consequative numbers in terms of a letter or symbol	**COMBINED LESSONS: Lesson 3 and 4: Describing a Pattern** To determine a pattern using concrete materials & pictorial; to use a table to identify a repeating pattern; to express the relationship between consequative 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.
2 Chapter 9: Algebra				
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.	**Lesson 9: Using Formulae** To use formaulae o 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.	**Revisit names, properties of 2D and 3D shapes.**
3				
SPRING TEST 2: arithmetic	**SPRING TEST 2: REASONING**	**SPRING TEST 2: 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.
4 Chapter 10: Area and Perimeter		**Chapter 11: Volume**		**Chapter 12: Geometry**
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.	**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 paralleleogram.	**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.
5 Chapter 12: Geometry				
Lesson 2: Solving Problems Involving Angles To solve problems involving angles using the bar model heuristic; to solve problems involving angles without protractors.	**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.	**Revisit negative numbers**
6 Chapter 13: Position and Movement				
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.	**Easter break**
Easter Break				

Year 6 coverage overview 2023-24

Summer 1: 28 or 29 lessons (check INSET)

1 Chapter 13: Position and Movement			**Chapter 14: Graphs and averages**	
INSET day school: Belleville, Belleville Wix, The Alton	**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.
2 Chapter 14: Graphs and averages *(FF: reading & calculating basic data graphs/pictograms)*				**Ch15: Negative Nos**
Lesson 3: Calculating Mean To calculate the mean.	**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.	**COMBINED LESSON: Lesson 1: Adding and Subtracting Negative Numers** To be able to use negative numbers in context, and calculate intervals across zero. **Lesson 2: Using Negative Numbers** To be able to use negative numbers in context, and calculate intervals across zero.
3				
Consolidation day: To be used if lessons take longer than expected or a topic needs to be revisited.	**Consolidation day:** To be used if lessons take longer than expected or a topic needs to be revisited.	**Consolidation day:** To be used if lessons take longer than expected or a topic needs to be revisited.	**Consolidation day:** To be used if lessons take longer than expected or a topic needs to be revisited.	**Consolidation day:** To be used if lessons take longer than expected or a topic needs to be revisited.
4				
BANK HOLIDAY	**Consolidation day:** To be used if lessons take longer than expected or a topic needs to be revisited.	**Consolidation day:** To be used if lessons take longer than expected or a topic needs to be revisited.	**Consolidation day:** To be used if lessons take longer than expected or a topic needs to be revisited.	**Consolidation day:** To be used if lessons take longer than expected or a topic needs to be revisited.
5 SATS WEEK				
Consolidation day: To be used if lessons take longer than expected or a topic needs to be revisited.	**Consolidation day:** To be used if lessons take longer than expected or a topic needs to be revisited.	**Wednesday: arithmetic & reasoning**	**Thursday: reasoning**	**RECAP Lesson 1 and 2: Finding the Volume of Cubes and Cuboids**
6 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 Homework:

Year 6 coverage overview 2023-24

Quality First Education Trust

Summer 2: 37 or 38 lessons (check INSET)				
1 Chapter 12: Geometry				
INSET day school: Churchfields	**Lesson 5: Solving Problems Involving Angles in a Circle** To be able to solve problems involving angles in a circle.	**Lesson 8: Drawing Qudrilaterals** 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** To be able to solve problems involving ratio.	**Consolidation day:** To be used if lessons take longer than expected or a topic needs to be revisited.
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 (over 2 days) To be able to recognise and make nets for 3-D shapes.	**Lesson 11: Drawing Nets of 3-D Shapes (over 2 days)**	**Lesson 12: Drawing Nets of 3-D Shapes** To be able to recognise and make nets for 3-D shapes.	**Lesson 12: Drawing Nets of 3-D Shapes (over 2 days)**	**Chapter 12 review and consolidation** To practise various concepts covered in the chapter.
5 Chapter 13: Position and movement				
Lesson 3: Describe Position (over 2 days) To be able to describe positions on a full coordinate grid.	**Lesson 3: Describe Position (over 2 days)**	**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 moevemnt of objects using the terms 'translation' and 'reflection'.	**Lesson 9: Using Algebra to Describe Movements (over 2 days)** 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 (over 2 days)	**Lesson 10: Using Algebra to Describe Movements (over 2 days)** To represent translation and reflection using algebraic notation.	**Lesson 10: Using Algebra to Describe Movements (over 2 days)**	**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.	**Consolidation day:** To be used if lessons take longer than expected or a topic needs to be revisited.	**Chapter 14 review and consolidation** To practise various concepts covered in the chapter.
8				
Revision and Mid-year Tests (B)	**Revision and Mid-year Tests (B)**	**Revision and Mid-year Tests (B)**	**Summer break**	
Summer break				