Year 6 Mathematics Yearly Overview

	04/09/23	11/09/23	18/09/23 MOCK SATs	25/09/23	02/10/23	9/10/23	16/10/23 (Mon - Thu only)	
Autumn 1	**Place Value** Represent, read and write numbers to 10,000,000; Order and compare integers to 10,000,000;	**Place Value** Powers of 10; Round integers to the nearest 10, 100, 1,000, 10,000 and 100,000; Order and compare negative numbers; Count in negative numbers;	**Place Value/ 4 Operations** Solve problems involving negative numbers (add, subtract, find difference); Add and subtract integers (using manipulatives);	**4 Operations** Worded addition problems; General arithmetic and reasoning practice (ahead of papers)	**4 Operations** Worded subtraction problems; Mixed multi-step addition and subtraction problems; Multiply 4-digit numbers by 2-digit numbers;	**4 Operations** Multiply 4-digit numbers by 2-digit numbers; Solve problems with multiplication; Short division with and without remainders; short division w decimal remainders;	**4 Operations** Solve problems with division, including deciding whether to round remainders; Solve multi-step problems; Introduction to long division using the chunking method	
	Vocabulary: place holder; millions; hundred-thousands; ten-thousands; thousands; hundreds; tens; ones; columns; place value chart; greater than; less than; equal to	**Vocabulary:** powers of 10; round; nearest 10; nearest 100 (ect.); negative number; number line; count on; count back	**Vocabulary:** Rise/rose/risen; fall/fell/fallen; cross zero; difference exchanging; columns; total; sum; altogether; subtrahend, minuend	**Vocabulary:** lots of; key multiples; times; multiplied by; product; arrays; groups of; exchanging; product; square; cube	**Vocabulary:** groups of; exchanging; dividend; divisor; quotient; repeated subtraction;	**Vocabulary:** groups of; exchanging; dividend; divisor; quotient; repeated subtraction;	**Vocabulary:** estimate, operations, multiply, divide, add, subtract, RUCSAC; chunking	
	Mental: partitioning; adding and subtracting 10s, 100s, 1000s etc., multiplying and dividing by 10, 100, 1000 etc.	**Mental:** rounding, estimating, partitioning, negative numbers	**Mental:** methods for addition and subtraction; partitioning and estimating.	**Mental:** recall of multiplication facts including square numbers; number bonds to 10 and 100	**Mental:** common factors and common multiples	**Mental:** recall of division facts linked to times tables; rules of divisibility	**Mental:** square and cube numbers; primes to 100	
	30/10/23	06/11/23	13/11/23	20/11/23	27/11/23 Mock SATs	4/12/23	11/12/23	18/12/23

	4 Operations	Fractions	Fractions	Fractions	Fractions	Fractions + Decimals	FDP	Revision
Autumn 2	Long division using the chunking method; Solve problems using long division, including deciding whether to round the remainders; Order of operations; Introduction to equivalent fractions	Equivalent fractions and simplifying; Compare and order fractions by finding a common denominator; Convert between improper fractions and mixed numbers	Convert between improper fractions and mixed numbers; Fraction sequences; Add and subtract simple fractions; Add and subtract mixed numbers	Multiply fractions by integers; Multiply fractions by fractions; Multiply mixed numbers	Divide a fraction by a fraction; Divide a fraction by an integer;	Mixed questions with fractions; Find a fraction of an amount; Round decimals; Add and subtract decimals; Multiply and divide decimals by 10, 100 and 1000	Multiply decimals by an integer; Divide decimals by an integer; Convert fractions and decimals	Recapping 4 operations and fractions using Christmas-themed questions
	Vocabulary: chunking, multiples, repeated subtraction, RUCSAC, BODMAS, fraction, numerator, denominator, vinculum (means divide), equivalent	**Vocabulary:** simplify, order, compare, number line, sequence, equivalent, numerator, denominator, vinculum (means divide), common denominator, highest common factor; mixed number; improper fraction	**Vocabulary:** simplify / simplest form, numerator, denominator, multiply, lowest common denominator; highest common factor	**Vocabulary:** of (means multiply) simplify / simplest form, numerator, denominator, divide, lowest common denominator, highest common factor	**Vocabulary:** KFC (keep flip change), simplify / simplest form, whole, numerator, denominator, lowest common denominator, highest common factor	**Vocabulary:** simplify / simplest form, numerator, denominator, whole, decimal point, place, place value grid / chart, column tenth, thousandth, hundred-thousandth, multiply	**Vocabulary:** whole, fraction, decimal, integer, convert, multiply, divide, decimal point	**Vocabulary:** whole, fraction, decimal, integer, add, subtract, multiply, divide, RUCSAC, KFC, of (means multiply), simplify / simplest form, numerator, denominator, lowest common denominator, highest common factor
	Mental: recall of multiplication and division facts; methods for addition and subtraction; visualisation of fractions	**Mental:** recall of multiplication and division facts; methods for addition and subtraction; visualisation of fractions	**Mental:** recall of multiplication and division facts; methods for addition and subtraction; visualisation of fractions	**Mental:** recall of multiplication and division facts; methods for addition and subtraction; visualisation of fractions	**Mental:** recall of multiplication and division facts; methods for addition and subtraction; visualisation of fractions	**Mental:** multiply by 10, 100 and 1000	**Mental:** recall of multiplication and dvision facts	**Mental:** recall of multiplication and division facts

	08/01/24	15/01/24 MOCK SATs	22/01/24 (4 lessons only – theme day)	29/01/24 (3 lessons only – strike, NSPCC Number Day)	05/02/24	12/02/24		
Spring 1	**FDP** Equivalent FDPs; Compare and order FDPs; Find a % of a number	**Converting Units + APV** Convert metric measures (mm, cm, m, km); Convert metric measures (g, kg, ml, l); Perimeter of rectangles	**Area, Perimeter and Volume** Perimeter of compound shapes; Perimeter with missing sides; Find area of rectangles, inc. word problems	**Area, Perimeter and Volume** Area of compound shapes; Area of triangles and parallelograms; Calculate volume of a cuboid	**APV + Statistics** Calculate volume of a cuboid with missing sides; Calculate volume of compound shapes by splitting shapes and counting cubes; Reading scales; Read and interpret line graphs and bar charts	**Statistics**Read and interpret tables; Read and interpret pie charts; Calculate the mean; Read analogue clock (recap); Convert time (e.g. hours to minutes to seconds)		
	Vocabulary: fraction, decimal, percentage, compare, order, out of 100, denominator, numerator, equivalent	**Vocabulary:** metric, unit of measurement, m, cm, mm, km, miles, inches, yards, formula, convert, compare, < > =, perimeter, square, rectangle, polygon	**Vocabulary:** perimeter, area, shape, rectangle, square, RUCSAC, formula / formulae	**Vocabulary:** perimeter, area, compound shape, triangle, square, rectangle, cuboid, parallelogram, volume, 2D, 3D	**Vocabulary:** volume, 3D, compound shape, cuboid, cube, scale, interval, data, survey, x-axis, y-axis, bar chart, line graph	**Vocabulary:** data, table, survey, column, row, heading pie chart, represent, information, mean, average, analogue, hours, minutes, seconds, o'clock, convert		

	Mental: recall of multiplication and divison facts; methods for addition and subtraction	**Mental:** recall of multiplication and divison facts; methods for addition and subtraction	**Mental:** compare decimals up to 3dp, multiply and divide by 10, 100 and 100	**Mental:** compare decimals up to 3dp, recall of multiplication and division facts	**Mental:** convert between basic / common fractions, decimals and percentages, recall of multiplication and division facts	**Mental:** convert between basic / common fractions, decimals and percentages, recall of multiplication and division facts, estimating		
	26/02/24	**6/03/24**	**13/03/24**	**20/03/24**	**27/03/24** MOCK SATs		
Spring 2	**Time/Timetables** Convert between 12- and 24-hour clock; Calculate duration of events; Calculate start and end times; Read and interpret tables; Read and interpret timetables	**Shape** Introduce angles; Measure angles with a protractor; Draw lines and angles accurately with a protractor; Draw polygons accurately (using a protractor) Calculate missing angles on a straight line;	**Shape** Calculate missing angles in a triangle Calculate missing angles around a point; Calculate missing angles in a quadrilateral; Calculate missing angles in special quadrilaterals	**Shape + Position /Direction** 3D shapes; Identify and draw nets of 3D shapes; Use 4-quadrant coordinates	**Position + Direction / Ratio + Proportion** Reflection; Translation; Introduction to ratio; Find ratio;		
	Vocabulary: 12-hour clock, 24-hour clock, am/pm, hours, minutes, seconds, duration, start time, end time, number line, column, row, heading, data, information, timetable	**Vocabulary:** angle, degrees, acute, obtuse, reflex, right angle, protractor, baseline, straight line, triangle, measure, accurate, internal, external	**Vocabulary:** angle, degrees, acute, obtuse, reflex, right angle, protractor, baseline, quadrilateral, polygon, 2D shape	**Vocabulary:** 3D shape, cube, cuboid, pyramid, sphere, net; 4-quadrant, x-axis, y-axis, horizontal, vertical, axes, symmetry, co-ordinates, along the corridor and up the stairs, reflection, translation	**Vocabulary:** Ratio, proportion, colon, part, whole, factors, scale factor		

	Mental: methods for addition and subtraction	**Mental:** methods for addition and subtraction	**Mental:** methods for addition and subtraction	**Mental:** methods for addition and subtraction	**Mental:** methods for addition and subtraction	
	15/04/24	**22/04/24**	**29/04/23**	**06/05/24**	**13/05/24**	**20/05/24**
Summer 1	**Ratio + Proportion / Revision** Find ratio; Find proportion; Solve ratio and proportion problems **Revision:** four operations, including long multiplication and chunking	**Revision (Reasoning focus)** **Revision:** four operations – multi-step word problems **Revision:** FDP, including mixed fractions skills, finding percentages, conversions, and reasoning and problem solving	**Mixed Revision** **Revision** with a reasoning focus – mixed skills using past papers and test-style questions	**SATs WEEK**	**Algebra** 1-step function machines; 2-step function machines; Form expressions; Substitutions; Formulae	**Algebra** Form equations; Solve 1-step equations; Solve 2-step equations; Find pairs of values; Solve problems with two unknowns
	Vocabulary: ratio, proportion, colon, part, whole, factors, scale factor, multiply, divide, scale, RUCSAC, chunking, repeated subtraction, repeated addition, commutative law	**Vocabulary:** more than, less than, fewer, product, sum, total, fraction, numerator, denominator, vinculum, lowest common denominator, highest common factor, percent, decimal, tenth, hundredth, convert	**Vocabulary:** statistics, geometry, shape, 2D shape, 3D shape, angles, vertices, edges, sides, faces, time, timetables		**Vocabulary:** input, output, function machine, form expression, multiplied, substitution; value; formula; formulae	**Vocabulary:** formula, formulae; equation, represents; problem;
	Mental: Converting seconds/minutes/ hours, converting days/months/years	**Mental:** Converting seconds/minutes/ hours, converting days/months/years	**Mental:** doubling, halving, inverse, estimating		**Mental:** mental strategies for the four operations	**Mental:** mental strategies for the four operations

	03/06/24	10/06/24	17/06/24	24/06/24	01/07/24	8/07/24	15/7/24 (Mon – Thu only)	
Summer 2	**Themed Projects, Consolidation and Problem Solving**	**Themed Projects, Consolidation and Problem Solving**	**Themed Projects, Consolidation and Problem Solving**	**Themed Projects, Consolidation and Problem Solving**	**Themed Projects, Consolidation and Problem Solving**	**Themed Projects, Consolidation and Problem Solving**	**Themed Projects, Consolidation and Problem Solving**	