MATHS MTP

Year 6

RtP objectives are in red – these are to be the priority and covered first before N.C objectives

Black objectives are objectives that are from the national curriculum.

The following RtP objectives are covered daily through Ten A Day:

- 6NPV–1 Understand the relationship between powers of 10 from 1 hundredth to 10 million, and use this to make a given number 10, 100, 1,000, 1 tenth, 1 hundredth or 1 thousandth times the size (multiply and divide by 10, 100 and 1,000).
- 6NPV–2 Recognise the place value of each digit in numbers up to 10 million, including decimal fractions, and compose and decompose numbers up to 10 million using standard and non-standard partitioning.
- 6NPV–3 Reason about the location of any number up to 10 million, including decimal fractions, in the linear number system, and round numbers, as appropriate, including in contexts.
- 6NPV–4 Divide powers of 10, from 1 hundredth to 10 million, into 2, 4, 5 and 10 equal parts, and read scales/number lines with labelled intervals divided into 2, 4, 5 and 10 equal parts.
- 6AS/MD–1 Understand that 2 numbers can be related additively or multiplicatively, and quantify additive and multiplicative relationships (multiplicative relationships restricted to multiplication by a whole number).
- 6AS/MD–1 Use a given additive or multiplicative calculation to derive or complete a related calculation, using arithmetic properties, inverse relationships, and placevalue understanding.
- 6AS/MD–3 Solve problems involving ratio relationships.
- 6AS/MD–4 Solve problems with 2 unknowns
- 6F–1 Recognise when fractions can be simplified, and use common factors to simplify fractions.
- 6F–2 Express fractions in a common denomination and use this to compare fractions that are similar in value.
- 6F–3 Compare fractions with different denominators, including fractions greater than 1, using reasoning, and choose between reasoning and common denomination as a comparison strategy

TERM 1:1	Week 1, Week 2, Week 3 and Week 4 Place Value	Week 5 and Week 6 Addition and subtraction	Week 7 and Week 8 Multiplication and division
Week 1 = 2 days of x tables (8 weeks)	Round any whole number to a required degree of accuracy Use negative numbers in context, and calculate intervals across zero 6NPV-1 Understand the relationship between powers of 10 from 1 hundredth to 10 million, and use this to make a given number 10, 100, 1,000, 1 tenth, 1 hundredth or 1 thousandth times the size (multiply and divide by 10, 100 and 1,000). 6NPV-2 Recognise the place value of each digit in numbers up to 10 million, including decimal fractions, and compose and decompose numbers up to 10 million using standard and non-standard partitioning. 6NPV-3 Reason about the location of any number up to 10 million, including decimal fractions, in the linear number system, and round numbers, as appropriate, including in contexts. 6NPV-4 Divide powers of 10, from 1 hundredth to 10 million, into 2, 4, 5 and 10 equal parts, and	Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why Add and subtract whole numbers with more than 4 digits, including using formal written methods (columnar addition and subtraction) 6AS/MD-1 Understand that 2 numbers can be related additively or multiplicatively, and quantify additive and multiplicative relationships (multiplicative relationships restricted to multiplication by a whole number). 6AS/MD-1 Use a given additive or multiplicative calculation to derive or complete a related calculation, using arithmetic properties.	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 6AS/MD-1 Understand that 2 numbers can be related additively or multiplicatively, and quantify additive and multiplicative relationships (multiplicative relationships restricted to multiplication by a whole number).

	read scales/number lines with labelled intervals divided into 2, 4, 5 and 10 equal parts.		inverse relationships, and place-value understanding. 6AS/MD-3 Solve problems involving ratio relationships. 6AS/MD-4 Solve problems with 2 unknowns.	6AS/MD-1 Use a given additive or multiplicative calculation to derive or complete a related calculation, using arithmetic properties, inverse relationships, and place-value understanding. 6AS/MD-3 Solve problems involving ratio relationships. 6AS/MD-4 Solve problems with 2 unknowns.
TERM 1:2	Week 9 Order of Operations	Week 10 & Week 11 Fractions , Decimals and Percentages	Week 12 & Week 13 Measurement	Week 14 & Week 15 Geometry (Properties of Shapes)
(7 weeks) Mock SATs week???	use knowledge of the order of operations to carry out calculations involving the four operations. solve multi-step problems. use estimation to check answers and determine levels of accuracy.	6F-1 Recognise when fractions can be simplified, and use common factors to simplify fractions. 6F-2 Express fractions in a common denomination and use this to compare (and order) fractions that are similar in value.	6NPV-4 Divide powers of 10, from 1 hundredth to 10 million, into 2, 4, 5 and 10 equal parts, and read scales/number lines with labelled intervals divided into 2, 4, 5 and 10 equal parts. solve problems involving the calculation and conversion of units of measure, using decimal notation up to 3 decimal places where appropriate	illustrate and name parts of circles, including radius, diameter and circumference and know that the diameter is twice the radius

		6F-3 Compare fractions with different denominators, including fractions greater than 1, using reasoning, and choose between reasoning and common denomination as a comparison strategy. Find fractions of amounts		
TERM 2:1	Fractions, Decimals and Percentages Week 16 and Week 17	Week 18 and 19 Geometry Week 21	Week 20 Statistics Number day	Week 21 Algebra
Mock SATs week (6 weeks)	recall and use equivalences between simple fractions, decimals and percentages, including in different contexts	recognise angles where they meet at a point, are on a straight line, or are vertically opposite, and find missing angles 6G-1 Draw, compose, and decompose shapes according to given properties, including dimensions, angles and area, and solve related problems.	Interpret and construct pie charts and line graphs and use these to solve problems calculate and interpret the mean as an average.	use simple formulae generate and describe linear number sequences express missing number problems algebraically find pairs of numbers that satisfy an equation with 2 unknowns enumerate possibilities of combinations of 2 variables

TERM 2:2	Week 22 and Week 23 Geometry Position and Direction	Week 24 and Week 25 Fractions and Decimals	Week 26 and Week 27 Ratio and Proportion
(6 weeks)	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.	use common factors to simplify fractions; use common multiples to express fractions in the same denomination compare and order fractions, including fractions >1 Find fractions of amounts 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, $\frac{1}{4} \times \frac{1}{2} = \frac{1}{8}$] divide proper fractions by whole numbers [for example, $\frac{1}{3} \div 2 = \frac{1}{6}$]	solve problems involving the relative sizes of 2 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

		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 3 decimal places and multiply and divide numbers by 10, 100 and 1,000 giving answers up to 3 decimal places multiply one-digit numbers with up to 2 decimal places by whole numbers use written division methods in cases where the answer has up to 2 decimal places solve problems which require answers to be rounded to specified degrees of accuracy 6F-1 Recognise when fractions can be simplified, and use common factors to simplify fractions.	

		6F-2 Express fractions in a common denomination and use this to compare fractions that are similar in value. 6F-3 Compare fractions with different denominators, including fractions greater than 1, using reasoning, and choose between reasoning and common denomination as a comparison strategy.	
TERM 3:1	Week 28 and Week 29 SATS Preparation	Week 30 and Week 31 SATS Preparation	Week 32 and Week 33 Measures
(6 weeks) SATs week	Volume	Handling data - Pie charts Mena median, mode	• 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 3 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 (cm^3) and cubic metres (m^3), and extending to other units [for example, mm^3 and km^3]
TERM 3:2	Week 34 – Week 40	Week 34 – Week 40	Week 34 – Week 40
(7 weeks)	Consolidation	Consolidation	Consolidation