MATHS MTP

Year 5

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:

- 5NPV-1 Know that 10 tenths are equivalent to 1 one, and that 1 is 10 times the size of 0.1. Know that 100 hundredths are equivalent to 1 one, and that 1 is 100 times the size of 0.01. Know that 10 hundredths are equivalent to 1 tenth, and that 0.1 is 10 times the size of 0.01.
- 5NPV-2 Recognise the place value of each digit in numbers with up to 2 decimal places, and compose and decompose numbers with up to 2 decimal places using standard and nonstandard partitioning.
- 5NPV–3 Reason about the location of any number with up to 2 decimals places in the linear number system, including identifying the previous and next multiple of 1 and 0.1 and rounding to the nearest of each.
- 5NPV-4 Divide 1 into 2, 4, 5 and 10 equal parts, and read scales/number lines marked in units of 1 with 2, 4, 5 and 10 equal parts.
- 5NPV–5 Convert between units of measure, including using common decimals and fractions.
- 5NF-1 Secure fluency in multiplication table facts, and corresponding division facts, through continued practice.
- 5NF 2 Apply place-value knowledge to known additive and multiplicative number facts (scaling facts by 1 tenth or 1 hundredth),
- 5MD-1 Multiply and divide numbers by 10 and 100; understand this as equivalent to making a number 10 or 100 times the size, or 1 tenth or 1 hundredth times the size.
- 5MD-2 Find factors and multiples of positive whole numbers, including common factors and common multiples, and express a given number as a product of 2 or 3 factors.
- 5MD–3 Multiply any whole number with up to 4 digits by any one-digit number using a formal written method. 5MD–4 Divide a number with up to 4 digits by a one-digit number using a formal written method, and interpret remainders appropriately for the context
- 5F–1 Find non-unit fractions of quantities.
- 5F–2 Find equivalent fractions and understand that they have the same value and the same position in the linear number system.
- 5F–3 Recall decimal fraction equivalents for 12, 14, 15 and 110 and for multiples of these proper fractions.

TERM	Week I, Week 2, Week 3 and Week 4	Week 5 and Week 6	Week 7 and Week 8
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	Place Value	Addition and subtraction	Multiplication and division
Week I		5NF-2 Apply place-value	5MD–1 Multiply and divide
= 2	and that I is 10 times the size of 0.1.Know that 100	knowledge to known additive and	numbers by 10 and 100;
days of	hundredths are equivalent to I one, and that I is 100	multiplicative number facts	understand this as
×-	times the size of 0.01.Know that 10 hundredths are	(scaling facts by I tenth or I	equivalent to making a
tables	equivalent to I tenth, and that O.I is 10 times the size of	hundredth), for example:	number 10 or 100 times the
	0.01.	8+6=140.8+0.6=1.40.08+0.06=0.143 %	size, or I tenth or I
(8	5NPV-2 Recognise the place value of each digit in	$L_{+} = 12 \ 0.3 \ \infty \ L_{+} = 1.2 \ 0.03 \ \infty \ L_{+} = 0.12$	hundredth times the size.
weeks)	numbers with up to 2 decimal places, and compose and		5MD–2 Find factors and
	decompose numbers with up to 2 decimal places using	Add and subtract whole numbers	multiples of positive whole
	standard and non-standard partitioning.	with more than 4 digits, including	numbers, including common
	5NPV-3 Reason about the location of any number with	using formal written methods	factors and common
	up to 2 decimals places in the linear number system,	(columnar addition and	multiples, and express a
	including identifying the previous and next multiple of I	subtraction)	given number as a product
	and O.I and rounding to the nearest of each.		of 2 or 3 factors.
	5NPV-4 Divide I into 2, 4, 5 and 10 equal parts, and	Add and subtract numbers	5MD–3 Multiply any whole
	read scales/number lines marked in units of I with 2. 4.	mentally with increasingly large	number with up to 4 digits
	5 and 10 equal parts.	numbers	by any one-digit number
	5NPV-5 Convert between units of measure, including		using a formal written
	using common decimals and fractions.		method.
			5MD-4 Divide a number
	Read, write, order and compare numbers to at least I		with up to 4 digits by a
	000 000 and determine the value of each digit		one-digit number using a
			formal written method, and
	Count forwards or backwards in steps of powers of 10		interpret remainders
	for any given number up to		appropriately for the
			context.

	and backwards with pc and regative whole nu	bers in context, count forwards sitive mbers, including through zero to 1 000 000 to the nearest 10, 100 000		Identify multiples and factors, including finding all factor pairs of a number, and common factors of two numbers Multiply numbers up to 4 digits by a one- or two- digit number using a formal written method, including long multiplication for two- digit numbers Multiply and divide numbers mentally drawing upon known facts Divide numbers up to 4 digits by a one-digit number using the formal written method of short division and interpret remainders appropriately for the context Multiply and divide whole numbers and those involving decimals by 10,
TERM	Week 9	Week 10	Week 12 & Week 13	100 and 1000 Week 14 & Week 15

:2		Fractions	Measurement	Geometry
	Place Value			Properties of Shapes
(7 weeks) NFER	5NPV-1 Know that 10 tenths are equivalent to 1 one, and that 1 is	5F-1 Find non-unit fractions of quantities. 5F-2 Find equivalent fractions	5NPV-5 Convert between units of measure, including using common decimals and fractions.	5G–I Compare angles, estimate and measure angles in degrees (°) and
wk 3	10 times the size of 0.1.Know that 100 hundredths are equivalent to 1 one,	and understand that they have the same value and the same position in the linear number system.	5NPV-4 Divide 1 into 2, 4, 5 and 10 equal parts, and read scales/number lines marked in	draw angles of a given size. 5G-2 Compare areas and calculate the area of
	and that I is 100 times the size of 0.01.Know that 10 hundredths are	5F-3 Recall decimal fraction equivalents for 1/2, 1/4, 1/5 and 1/10 and for multiples of these	units of 1 with 2, 4, 5 and 10 equal parts. Convert between different units of	rectangles (including squares) using standard units.
	equivalent to 1 tenth, and that 0.1 is 10 times the size of 0.01. 5NPV-2 Recognise the place value of	proper fractions. Compare and order fractions whose denominators are all multiples of the same number	metric measure [for example, kilometre and metre; centimetre and metre; centimetre and millimetre; gram and kilogram; litre and millilitre]	 identify 3-D shapes, including cubes and other cuboids, from 2-D representations
	each digit in numbers with up to 2 decimal places, and compose and decompose numbers with up to 2 decimal	recognise mixed numbers and improper fractions and convert from one form to the other and write mathematical statements >	understand and use approximate equivalences between metric units and common imperial units such as inches, pounds and pints	 know angles are measured in degrees: estimate and compare acute, obtuse and reflex angles
	places using standard and non- standard partitioning. 5NPV-3 Reason about the location of	as a mixed number [for example, $\frac{2}{5}$ + $\frac{4}{5}$ = $\frac{6}{5}$ = $ \frac{1}{5}$] add and subtract fractions with the same denominator, and	measure and calculate the perimeter of composite rectilinear shapes in centimetres and metres calculate and compare the area of	 draw given angles, and measure them in degrees (°) identify:
	any number with up to 2 decimals places		rectangles (including squares), including using standard units,	∘ angles at a point and l

in the linear number	denominators that are multiples	square centimetres (cm²) and		whole turn
system, including	of the same number	square metres (m²), and estimate		(total 360°)
identifying the		the area of irregular shapes	0	angles at a
previous and next	multiply proper fractions and			point on a
multiple of I and O.I	mixed numbers by whole	estinate volume for example,		straight line
and rounding to the	numbers, supported by materials	using I cm³ blocks to build cuboids		and half a turn
nearest of each.	and diagrams	(including cubes)] and capacity [for		(total 180°)
5NPV-4 Divide l'into	0	example, using water]	0	other multiples
2, 4, 5 and 10 equal	recognise and use thousandths		0	of 90°
parts, and read	and relate them to tenths,	use all four operations to solve	-	use the
scales/number lines	hundredths and decimal	probleme involving measure [for	0	properties of
marked in units of I	equivalents	example, length, mass, volume,		rectangles to
with 2, 4, 5 and 10	,	money] using decimal notation,		deduce related
equal parts.	round decimals with 2 decimal	including scaling		facts and find
5NPV-5 Convert	places to the nearest whole			missing lengths
between units of	number and to I decimal place			and angles
measure, including	I			
using common decimals and	read, write, order and compare		0	distinguish between
	numbers with up to 3 decimal			regular and
fractions.	places			irregular
Read, write, order				polygons based
and compare	solve problems involving			on reasoning
numbers to at least I	number up to 3 decimal places			about equal
000 000 and				sides and
determine the value	recognise the per cent symbol			angles
of each digit	(%) and understand that percent			
	relates to number of parts per			
Count forwards or	100', and write percentages as a			
backwards in steps of				

	powers of 10 for any given number up to 1 000 000 Interpret negative numbers in context, count forwards and backwards with positive and negative whole numbers, including through zero Round any number up to 1 000 000 to the nearest 10, 100, 1000, 10 000 and 100 000	fraction with denominator 100. and as a decimal fraction solve problems which require knowing percentage and decimal equivalents of $\frac{1}{2}$. $\frac{1}{4}$. $\frac{1}{5}$. $\frac{2}{5}$. $\frac{4}{5}$ and those fractions with a denominator of a multiple of 10 or 25		
TERM 2:I	Place Value Week 16	Addition and Subtraction Week 17	Multiplication & Division Week 18 and Week 19	Fractions and Decimals Week 20 & Week 21
(6 weeka)	Read, write, order and compare numbers to at least 1 000 000 and	Add and subtract whole numbers with more than 4 digits, including using formal written methods (columnar addition and subtraction)	Identify multiples and factors, including finding all factor pairs of a number, and common factors of two numbers	compare and order fractions whose denominators are all

determine the value		Multiply numbers up to 4 digits	multiples of the same
of each digit	Add and subtract numbers	by a one- or two-digit number	number
· ·	mentally with increasingly large	using a formal written method,	
Count forwards or	numbers	including long multiplication for	identify, name and write
backwards in steps of		two-digit numbers	equivalent fractions of a
powers of 10 for any	5NF-2 Apply place-value	0	given fraction, represented
given number up to	knowledge to known additive	Multiply and divide numbers	visually, including tenths
ľ 000 000 í	and multiplicative number facts	mentally drawing upon known	and hundredths
	(scaling facts by I tenth or I	facts	
Interpret regative	hundredth), for example:	,	recognise mixed numbers
numbers in context,	8+6=140.8+0.6=1.40.08+0.06=0.143	Divide numbers up to 4 digits by	and improper fractions and
count forwards and	×4 = 12 0.3 ×4 = 1.2 0.03 ×4 =	a one-digit number using the	1 1 0
backwards with	0.12	formal written method of short	convert from one form to
positive		division and interpret remainders	the other and write
and regative whole		appropriately for the context	mathematical statements >
numbers, including			as a mixed number [for
through zero		Multiply and divide whole	example, 5+ 5= 5= 5
0		numbers and those involving	
Round any number		decimals by 10, 100 and 1000	add and subtract fractions
up to 1 000 000 to		U	with the same denominator.
the nearest 10, 100,		5MD–I Multiply and divide	
1000, 10 000 and		numbers by 10° and 100;	and denominators that are
100 000		understand this as equivalent to	multiples of the same
		making a number 10 or 100 times	number
		the size, or I tenth or I hundredth	
5NPV-1 Know that 10		times the size.	multiply proper fractions
tenths are equivalent		5MD–2 Find factors and multiples	and mixed numbers by
to I one, and that I is		of positive whole numbers,	whole numbers, supported
10 times the size of		including common factors and	by materials and diagrams
0.1.Know that 100		common multiples, and express a	
hundredths are			

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	equivalent to I one.	given number as a product of 2 or	read and write decimal
	and that I is 100	3 factors.	numbers as fractions [for
	times the size of	5MD–3 Multiply any whole	$-\frac{71}{100}$
	0.0l.Know that ID	number with up to 4 digits by any	example, 0.71 = 100]
	hundredths are	one-digit number using a formal	
	equivalent to I tenth,	written method.	recognise and use
	and that 0.1 is 10	5MD-4 Divide a number with up	thousandths and relate
	times the size of 0.01.	to 4 digits by a one-digit number	them to tenths, hundredths
	5NPV-2 Recognise	using a formal written method,	and decimal equivalents
	the place value of	and interpret remainders	Y
	each digit in	appropriately for the context.	round decimals with 2
	numbers with up to 2		decimal places to the
	decimal places, and		rearest whole number and
	compose and		to I decimal place
	decompose numbers		w rueuriu puice
	with up to 2 decimal		read, write, order and
	places using		compare numbers with up
	standard and non-		1 1
	standard partitioning.		to 3 decimal places
	5NPV-3 Reason		
	about the location of		solve problems involving
	any number with up		number up to 3 decimal
	to 2 decimals places		places
	in the linear number		
	system, including		recognise the per cent
	identifying the		symbol (%) and understand
	previous and next		that percent relates to
	multiple of I and O.I		'number of parts per 100',
	and rounding to the		and write percentages as a
	nearest of each.		fraction with denominator

	5NPV-4 Divide l'into 2, 4, 5 and 10 equal		100, and as a decimal fraction
	parts, and read scales/number lines marked in units of 1 with 2, 4, 5 and 10 equal parts. 5NPV-5 Convert between units of measure, including using common decimals and		solve problems which require knowing percentage and decimal equivalents of $\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{5}$, $\frac{2}{5}$, $\frac{4}{5}$ and those fractions with a denominator of a multiple of 10 or 25
	decimals and fractions:		5F-I Find non-unit fractions of quantities. 5F-2 Find equivalent fractions and understand that they have the same value and the same position in the linear number system. 5F-3 Recall decimal fraction equivalents for 1/2. 1/4. 1/5 and 1/10 and for multiples of these proper fractions.
TERM 2:2	Geometry – properties of shape Week 22 and Week 23	Fractions and Decimals Week 24	Geometry – Position and direction Week 26 and Week 27

(6 weeks) Wk 4 NFER	 identify 3-D shapes, including cubes and other cuboids. from 2-D representations know angles are measured in degrees: estimate and compare acute, obtuse and reflex angles draw given angles, and measure them in degrees (°) identify: angles at a point and I whole turn (total 360°) angles at a point on a straight line and half a turn (total 180°) other multiples of 90° use the properties of rectangles to deduce related facts and find missing lengths and angles distinguish between regular and irregular polygons based on reasoning about equal sides and angles 5G-I Compare angles, estimate and measure angles in degrees (°) and draw angles of a given size. 	compare and order fractions whose denominators are all multiples of the same number identify, name and write equivalent fractions of a given fraction, represented visually, including tenths and hundredths recognise mixed numbers and improper fractions and convert from one form to the other and write mathematical statements > I as a mixed number [for example, $\frac{2}{5}$, $\frac{4}{5}$, $\frac{6}{5}$, $\frac{1}{5}$] add and subtract fractions with the same denominator, and denominators that are multiples of the same number multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams	identify, describe and represent the position of a shape following a reflection or translation, using the appropriate language, and know that the shape has not changed.
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read and write decimal numbers	
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as fractions [for example, $0.71 = \overline{100}$]	
recognise and use thousandths	
and relate them to tenths,	
hundredths and decimal	
equivalents	
round decimals with 2 decimal	
places to the nearest whole	
number and to I decimal place	
read, write, order and compare	
numbers with up to 3 decimal	
places	
solve problems involving number	
up to 3 decimal places	
recognise the per cent symbol (%)	
and understand that percent	
relates to number of parts per	
100°, and write percentages as a	
fraction with denominator 100, and	
as a decimal fraction	
solve problems which require	
knowing percentage and decimal	

		equivalents of $\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{5}$, $\frac{2}{5}$, $\frac{4}{5}$ and those fractions with a denominator of a multiple of 10 or 25	
		 5F-1 Find non-unit fractions of quantities. 5F-2 Find equivalent fractions and understand that they have the same value and the same position in the linear number system. 5F-3 Recall decimal fraction equivalents for 1/2, 1/4, 1/5 and 1/10 and for multiples of these proper fractions. 	
TERM 3:I	Statistics Week 28 and Week 29	Measure Week 30 and Week 31	Word Problems (l ₊ operations)
5.1			Week 32 and Week 33
(6 weeks)	Solve comparison, sum and difference problems using information presented in a line graph complete, read and interpret information in tables, including timetables.	convert between different units of metric measure [for example, kilometre and metre; centimetre and metre; centimetre and millimetre; gram and kilogram; litre and millilitre]	Solve number problems and practical problems that involve place value with numbers to 3 decimal players.
		understand and use approximate equivalences between metric units	Solve addition and subtraction multi-step problems in contexts,

	and common imperial units such	deciding which operations
	as inches, pounds and pints	and methods to use and
		why.
	measure and calculate the	
	perimeter of composite rectilinear	Solve problems involving
	shapes in centimetres and metres	multiplication and division
		including using their
	calculate and compare the area of	knowledge of factors and
	rectangles (including squares),	multiples, squares and
	including using standard units,	cubes
	square centimetres (cm²) and square metres (m²), and estimate	
	the area of irregular shapes	Solve problems involving
	a to a car of a regarder situates	addition, subtraction,
	estimate volume [for example,	multiplication and division
	using I cm³ blocks to build cuboids	and a combination of these,
	(including cubes)] and capacity [for	including understanding the
	example, using water]	meaning of the equals sign
	use all four operations to solve	Solve problems involving
	problems involving measure [for	multiplication and division,
	example, length, mass, volume,	including scaling by simple
	money] using decimal notation,	fractions and problems
	including scaling	involving simple rates.
	5NPV-5 Convert between units of	
	measure, including using common	
	decimals and fractions.	
	5NPV-4 Divide l into 2, 4, 5 and	
	10 equal parts, and read	

TERM 3:2	Statistics Week 34 and Week 35	scales/number lines marked in units of 1 with 2, 4, 5 and 10 equal parts. The Four Operations (Problem Solving, reasoning and word problems) Week 37	Week 38. Week 39 and Week 40 Teacher discretion
(7 weeks) Wk 3 NFER	Solve comparison, sum and difference problems using information presented in a line graph Complete, read and interpret information in tables, including timetables.	Solve number problems and practical problems that involve place value with numbers to 3 decimal players. Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why. Solve problems involving multiplication and division including using their knowledge of factors and multiples, squares and cubes Solve problems involving addition, subtraction, multiplication and division and a combination of these, including understanding the meaning of the equals sign	Time? Consolidation? RtP objectives that have not been marked off of RtP Assessment sheet? Misconceptions from NFER tests?

	Solve problems involving multiplication and division, including scaling by simple fractions and problems involving simple rates.
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