Year 4 Maths Overview

Term 1	Block 1 **Place Value** (4 Weeks)	NSM – 6 and 7 x tables	Block 2 **Addition and Subtraction** (4 Weeks)	NSM – 8 x tables Factors/Multiples	Block 3 **Multiplication and Division** (4 Weeks)	NSM – 10, 11 and 12x tables Fractions
	Wider Curriculum					

Term 2	Block 4 **Fractions** (5 Weeks)	Money Conversions	Block 5 **Decimals** (money and conversions/measures link) (5 Weeks)	Fraction/Decimal equivalence MTC prep	Block 6 **Four operations application**	Shape MTC prep
	Wider Curriculum					

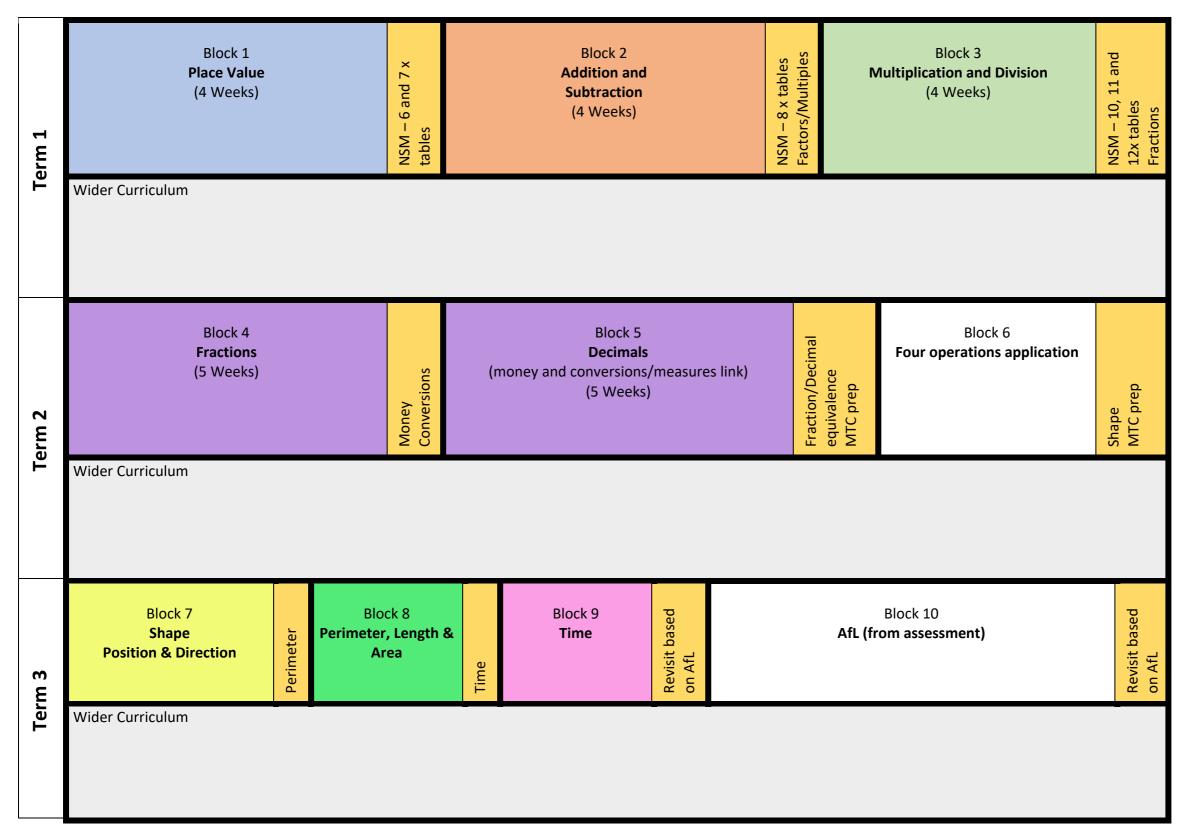|								
Term 3	Block 7 **Shape Position & Direction**	Perimeter	Block 8 **Perimeter, Length & Area**	Time	Block 9 **Time**	Revisit based on AfL	Block 10 **AfL (from assessment)**	Revisit based on AfL
	Wider Curriculum							

NB. There will be an assessment week within each term as well.

Declarative knowledge – highlight is new knowledge that year

Year 4: Block 1 (Place Value)

Place Value Objectives (Small Steps)	Links to Wider Curriculum
1) Represent numbers to 1000 2) Partition numbers up to 1000 3) Number line to 1000 4) Represent numbers to 10,000 5) Partition numbers to 10,000 6) Find 1, 10, 1000 more or less 7) Estimate on a number line to 10,000 8) Compare and Order numbers up to 10,000 9) Round to the nearest 10, 100 and 1000 10) Reasoning and problem solving within place value (1 week)	

Year 4: Block 2 (Addition and Subtraction)

Declarative Knowledge

8 times tables (1 new fact)

8 times table (0 new facts)

A factor is a number that divides exactly into a given number without a remainder

A factor pair is a pair of whole numbers multiplied together to form another number called their product

A multiple is a number that can be divided by another number without a remainder

I know that when I multiply by 1 the product is the same result as the number itself

I know that when I multiply by 0 the product is 0

I know that when I divide by 1 the answer is the same as the number itself

I know that when I divide by 0 the answer is 0

Addition and Subtraction Objectives	Links to Wider Curriculum
1) Add up to two 4-digit numbers – no exchange 2) Add two 4-digit numbers – one exchange 3) Add two 4-digit numbers – more than one exchange 4) Subtract two 4-digit numbers – no exchange 5) Subtract two 4-digit numbers – one exchange 6) Subtract two 4-digit numbers – more than one exchange 7) Application of addition and subtraction through problems 8) Estimate answers 9) Checking strategies 10) Reasoning and problem solving within addition and subtraction (1 week)	

Year 4: Block 3 (Multiplication and Division)

Declarative Knowledge
More squares
10 and 11 timetables
12 timetables

I know that I can use my multiplication facts knowledge to solve related facts e.g. 3 x 4 = 12 therefore 3 x 40 = 120 (after x 10, 100 lesson is taught)

I know that a numerator shows how many parts of the whole are needed
I know that a denominator is how many equal parts are in the whole
A unit fraction is a fraction where the numerator is 1
A non-unit fraction is a fraction where the numerator is greater than 1
Equivalent fractions are 2 or more fractions that are all equal even though they have different numerators and denominators

Multiplication and Division Objectives	Links to Wider Curriculum
- Multiply 3 numbers - Understanding factor pairs - Multiply by 10 and 100 - Divide by 10 and 100 - Multiply 2 digit by 1 digit - Multiply 3 digits by 1 digit - Divide 2 digits by 1 digit - Divide 3 digits by 1 digit - Reasoning and problem solving within multiplication and division (1 week)	

Year 4: Block 4 (Fractions)

Declarative Knowledge

MTC prep

I know that there are 10mm in 1cm.
I know that there are 100cm in 1m.
I know that 1000 grams are equal to 1 kilogram.
I know that 1000 millilitres is equal to 1 litre.

I know that there is 100 pence in £1
I know that different coins and notes represent different amounts of money (e.g. Coins - 1p, 2p, 5p, 10p, 20p, 50p, £1, £2. Notes - £5, £10, £20, £50)
I know that change can be given when paying for items in shops.

Fractions Objectives	Links to Wider Curriculum
1) Unit and non-unit fractions 2) Tenths 3) Equivalent fractions 4) Fractions greater than 1 5) Count in fractions 6) Add 2 or more fractions 7) Subtract 2 fractions 8) Subtract from whole amounts 9) Fractions of a set of objects 10) Calculate fractions of a quantity 11) Reasoning and problem solving within fractions (1 week)	

Year 4: Block 5 (Decimals)

Declarative Knowledge
MTC prep

I know that $^1/_{10}$ is the same as 0.1
I know that 1/2 is equal to 0.5
I know that 1/4 is equal to 0.25
I know that ¾ is equal to 0.75

Decimal Objectives	Links to Wider Curriculum
1) Recognise tenths and hundredths 2) Tenths as decimals 3) Tenths on a place value grid and number line. 4) Divide 1-digit by 10 5) Divide 2-digits by 10 6) Hundredths 7) Hundredths as decimals 8) Divide 1 or 2 digits by 100 **Money Objectives** 9) Pounds and pence 10) Ordering money 11) Estimating money 12) Add and subtract money 13) Find change 14) Reasoning and problem solving within decimals and money (1 week)	

Year 4: Block 6 (Four Operations Revisit)

Declarative Knowledge

MTC prep

I know that triangles have a total angle of 180^0.
I know that an equilateral triangle has sides of equal length and equal angles (60^0).
I know that an isosceles triangle has two sides of equal length and two angles of equal size.
I know that a right angled triangle always has one 90^0 angle.
I know that a scalene triangle has no equal sides or angles.
I know that a quadrilateral is a polygon with 4 sides.
I know that a square, rectangle, rhombus, parallelogram, kite and trapezium are all examples of quadrilaterals.
I know that angles are created when two straight lines meet at a point or intersect.
I know that an acute angle is less than 90^0.
I know that a right angle is 90^0.
I know that an obtuse angle is an angle more than 90^0 but less than 180^0.
I know that a reflex angle is any angle larger than 180^0.

I know that coordinates can be used to locate a position on a map or a grid.
I know that the numbers across the horizontal line of the grid are the x-axis.
I know that the numbers on the vertical line of the grid are the y-axis.
I know that translation means moving an object on a grid.

Four Operations Revisit Objectives	Links to Wider Curriculum
Either; Re-teaching following assessment analysis Or; Opportunity to apply within broader curriculum	

Year 4: Block 7 (Shape, Position & Direction)

Declarative Knowledge
MTC prep

I know that area is the amount of space inside a 2D shape.
I know that the perimeter is the total distance around the outside of a 2D shape.

Shape Objectives	Links to Wider Curriculum
1) Identifying Angles 2) Comparing and ordering angles 3) Recognise and describe 2D and 3D shapes 4) Triangles 5) Quadrilaterals 6) Lines of symmetry 7) Complete a symmetric pattern 8) Reasoning and problem solving with shape (1 week) **Position & Direction Objectives** 1) Movement on a grid 2) Draw 2D shapes on a grid 3) Translate on a grid	

Year 4: Block 8 (Perimeter, Length & Area)

Perimeter & Length Objectives	Links to Wider Curriculum
1) Measure in kilometres and metres 2) Equivalent lengths (km and m) 3) Perimeter of rectangles 4) Perimeter of rectilinear shapes 5) Missing lengths of rectilinear shapes 6) Perimeter of regular polygons 7) Perimeter of polygons 8) Reasoning and problem solving within perimeter and length (1 week) **Area Objectives** 1) What is area? 2) Count squares 3) Compare areas	

Year 4: Block 9 (Time)

Declarative Knowledge

Class specific based on AfL

Time Objectives	Links to Wider Curriculum
1) Telling the time to 5 minutes 2) Telling the time to the minute 3) 24 hour clock 4) Hours, minutes and seconds 5) Years, months, weeks and days 6) Analogue to digital – 12 hour 7) Analogue to digital – 24 hour 8) Reasoning and problem solving within time	

Year 4: Block 10 – Based on assessment

Declarative Knowledge

Class specific based on AfL

Either;	Links to Wider Curriculum
Re-teaching following assessment analysis	
Or;	
Opportunity to apply within broader curriculum	

Maths Objectives to be covered in the wider curriculum

The below objectives need to be taught or revisited at some point in the year through the Year 4 broader curriculum.

Teach

- Describe and plot coordinates (Position and Direction)   Must be done before shape (T1 – T4) – Potential: Natural disasters, features of navigation?
- Interpreting pictograms, tables, bar charts (states of matter, climate zones, science experiments)
- Line graphs (states of matter, climate zones, science experiments)

- Roman Numerals (moved to Year 3 – Roman Theme)

Revisit

- Measuring lengths (DT)
- Equivalent lengths KM and M (geography height of physical/human features, distances between countries etc)
- Identifying/Comparing angles (DT project)
- Money (enterprise project/DT)
- Recognising tenths and hundredths/compare and order decimals (science, PE measuring time in a race etc.)
- Properties of shape (art)