

The intent of our **Maths** at Lyncrest is that every pupil accesses a broad, balanced and engaging curriculum that enables them to think mathematically, show fluency, to reason and solve real-life problems.

**Our maths curriculum aims to ensure that all pupils:**

- **Show fluency** – Pupils will become fluent in the fundamental of mathematics through placing number and place value at the heart of our curriculum with daily practice to ensure fluency of number facts.
- **Problem solving** – Pupils will apply a range of learning strategies systematically and accurately to solve problems.
- **Reasoning** – Pupils will reason mathematically by following a line of enquiry. Discussion plays a vital role in all lessons.



Our Maths curriculum is designed to develop children's knowledge and understanding of mathematical concepts from the Early Years through to the end of Y6. At Lyncrest, we follow the national curriculum and use White Rose Schemes of Work as a guide to support teachers with their planning of progressive and sequential lessons that build upon prior knowledge. Our school calculation policy is used to ensure a consistent approach to teaching the four operations and use of mathematical language.

Standardised assessments are used to ensure that data is accurate and comparable to national averages and support the process of evaluating progress for each child. Same day interventions are provided for children who are not sufficiently fluent with earlier material to consolidate their understanding and early morning activities provide opportunities for pupils to revisit prior learning.

The long term plans from the White Rose Schemes of Work show the progressive journey pupils take through the eight areas of learning: number and place value, addition and subtraction, multiplication and division, measures, geometry, ratios, algebra and statistics.

## VOCABULARY PROGRESSION

This progression map is designed to assist with the teaching of vocabulary across EYFS, KS1 and KS2 and is aligned with the White Rose Schemes of Learning. It identified in which year group vocabulary should be explicitly taught and introduced. However, language should be revisited in subsequent year groups to ensure children are consolidating their understanding.

Number – Number and Place Value						
EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
count	Sort	count in steps	ascending	Negative numbers	Ten thousands	Millions
subitise	Represent	count in multiples	descending	Roman numerals	One hundred thousands	Ten million
order	Multiples	place value	10 or 100 more	1000 more	Powers of	
compare	Partitioning	estimate	10 or 100 less	1000 less	integer	
forwards	Ones	compare	hundreds	Thousands		
backwards	Tens			Round		
numerals						
digit						

one more						
one less						
equal to						
more than						
less than (fewer)						

Addition and Subtraction						
EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Add	Addition	Sum	Column addition	4-digit number		
Plus	subtraction	3-digit number	Column subtraction	Operations		
Altogether	Difference	commutative	Exchange	methods		
Total	Equals		estimate			
Take away/minus	Facts					
Number bonds	Problems					
Part	Missing number problems					
Whole	2-digit number					
digit	inverse					

Multiplication and Division						
EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Double	Multiplication	Multiplication tables	Exchange	Factor pairs	Multiples	Multi-digit numbers
Half	Division	Commutative	Mathematical statements	Formal written layout	Factors	Long division
Twice as many	Arrays	Repeated addition	Missing number problems	Distributive law	Prime numbers	
Equal	share		Correspondence problems	remainders	Square numbers	
Unequal					Cube numbers	
Share					Short division	
Group					Product	
Odd					Dividend	
even					Divisor	
					Quotient	
					operations	

Fractions, decimals and Percentages						
EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
	Whole	Three quarters	Tenths	Decimal equivalence	Fifth	
	Half	Third		Hundredths	Thousandths	
	Quarter	Equivalent fractions		Convert	Mixed numbers	
	Equal parts	Unit fractions		Proper fractions	Per cent %	
		Non unit fractions		Improper fractions	Factors	
		Numerator		Decimal point	Integer	
		Denominator			complements	
		One whole				

Ratio & Proportion						
EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
						Relative size
						Missing value
						Integer multiplication
						Percentages
						Scale factor
						Unequal sharing & grouping

Algebra						
EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
						Formulae
						Linear number sequences
						Algebraically
						Equation
						Unknowns
						Combinations
						variables

Measurement (Measure and Length)						
EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Measure	compare	Standard units	Millimetre(mm)	Kilometres(km)	Decimal notation	Conversion
Wide(er)	Non-standard units	Estimate	perimeter	Rectilinear figure	Scaling	Miles
Narrow(er)	Standard units	Order		area	Metric units	formulae
Compare	Centimetre(cm)	Metre(m)			Imperial units	Parallelogram
Long(er)(est)					Inches	Triangles
Short(er)(est)					Compound shape	Feet
length					Irregular shapes	
					Square centimetres	
					Square metres	

Measurement (Height, Weight & Capacity)						
EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Height	Mass	Kilogram(kg)			Cubic centimetre	Cubic metre
Long(er)/short(er)	volume	Gram(g)			Pounds	Cubic millimetre
Tall(er)/short(er)		Quarter full			pints	Cubic kilometre
Weight		Three quarters full				Gallons
Capacity		Litres(l)				Stones
Heavy/light		Millilitres(ml)				Ounces
Heavier than		Temperature				
Lighter than		Celsius				
Big//bigger/biggest						
Full/empty						
More than						
Less than						
Half/half full						

Measurement (Time)						
EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Time	Chronological order	Intervals of time	Analogue clock	convert		
Quicker	Days of the week	Quarter past/to	Digital clock			
Slower	Months of the year	duration	Roman numeral			
Earlier	Month		12-hour clock			
Later	Year		24-hour clock			
Before	O'clock		a.m./p.m.			
After	Half past		Noon			

First	second		Midnight			
Next			Leap year			
Today			digital			
Yesterday						
Tomorrow						
Morning						
Afternoon						
Day						
Week						
Hour						
minutes						

Measurement (Money)						
EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Money	Coins	Value				
	Notes	change				
	Pence(p)					
	Pounds(£)					

Geometry – Properties of Shape						
EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
2-d shapes	Sides	Pentagon	Right angle	Isosceles	Regular polygon	Radius
Rectangle	Corners	Hexagon	Heptagon	Equilateral	Irregular polygon	Diameter
Square	Properties	Line of symmetry	Octagon	Scalene	Reflex angles	Circumference
Circle	Pyramids	Properties	Polygon	Trapezium	Degrees	dimensions
Triangle	faces	Cylinder	Properties	Rhombus	One whole turn	
Characteristics		Edges	Prism	Parallelogram	Angles on a straight line	
3-d shapes		Vertices	Orientations	Kite	Angles around a point	
Cuboids		vertex	Angles	Geometric shapes	Vertically opposite	
Cubes			Acute angle	quadrilaterals	Missing angles	
Cone			Obtuse angle			
Spheres			Right angle triangle			
Curved			Turn			
Straight			Half turn			

Flat			Three quarter turn			
			Greater than/lesser than right angle			
			Horizontal lines			
			Vertical lines			
			Perpendicular lines			
			Parallel lines			

Geometry – Position and Direction						
EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Over	Position	Clockwise/anti-clockwise		Co-ordinates	reflection	Four quadrants
Under	Direction	Straight line		First quadrant		Co-ordinate plane
Between	Movement	Rotation		Grid		
Around	Whole turn	Arrange		Translation		
Through	Quarter turn	sequences		Plot		
On	Half turn			Polygon		
Into	Three-quarter turn			axis		
Next to						
Behind						
Beneath						
Order						
Repeat						
patterns						
On top of						

Statistics						
EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
		Pictograms	Table	Time graph	Timetable	Pie chart
		Tally chart	Bar chart	Discrete data	Two-way tables	mean
		Block diagram	One-step problem	Continuous data		
		Category	Two-step problem	Line graph		
		Sorting		Comparison problem		
		Totalling		Sum problem		

		Comparing		Difference problem		
		Horizontal		Calculate		
		vertical		interpret		

**By the end of their time at Lyncrest a year 6 child will be able to:**

- Demonstrate a deep understanding of maths, including the recollection of times table and other number facts.
- Display a positive and resilient attitude towards mathematics and an awareness of the fascination of mathematics.
- Show confidence in believing that they will achieve.
- Achieve the objectives (expected standard) for the year group.
- Have the flexibility and fluidity to move between different contexts and representations of maths.
- Recognise relationships and make connections in maths lessons.

**In order to support all children to achieve this, including those with Special Educational Needs, we will:**

- Provide oral instructions for pupils and present tests/reading materials in an oral format (pre-recorded or providing a reader) so that assessments are not unduly influenced by the lack of reading ability.
- Provide frequent progress checks so individuals know how well they are progressing toward a goal.
- Give immediate feedback to ensure that the pupils can see the relationship between what was taught and what was learned.
- Wherever possible, make activities concise and short.
- Provide concrete objects/pictorial representations to support learning.
- Use the learning wall to display models, examples and key vocabulary for children to refer back to.
- Pre-teach new vocabulary and new concepts.
- Provide opportunities for pupils to re-visit prior learning.
- Provide access arrangements, such as a scribe or additional time, where appropriate.
- Ensure praise given is specific and link the activity directly with the recognition, e.g. I was particularly pleased with your use of ...
- Encourage cooperative learning activities when possible and have pupils of varying abilities work together to create an atmosphere in which a true 'community of learners' is facilitated and enhanced.
- Be consistent when applying rules; and remind and rehearse them regularly.