

LifeFull Schools Mathematics Curriculum

Curriculum Aims:

At LifeFull Schools, we want all our pupils to develop a **love of mathematics** and **experience successes** within the subject. We support all our pupils to become **fluent** mathematicians, who can use **quick recall of key number facts** to **solve problems** in a variety of contexts. Through a **Teaching for Mastery** approach, pupils develop **reasoning** skills and explore concepts **in depth**, enabling them to develop **confidence, competence** and **independence** with mathematics. Mistakes and misconceptions are an essential part of the learning process and **learning is built upon in manageable steps**, encouraging children to **make connections** and spot **patterns**. We aim to develop an ability in the children to express themselves fluently, to talk about the subject with assurance, using **correct mathematical language and vocabulary**. We encourage the effective use of mathematics as a tool in a wide range of **problem solving activities** within school and, subsequently, adult life.

Nursery

Autumn	Spring	Summer
<u>Number</u> Beginning to recognise and notice numbers in the environment Points or touches each item, saying one number for each item, using the stable number order Children enjoy joining in with number rhymes and songs <u>Numerical Patterns</u> Children enjoy counting as far as they go They are able to use some number names and number language within play	<u>Number</u> Children recognise that the last number said represents the total counted so far Children are developing an understanding of conservation of number They are becoming more able to link numerals with amounts up to 5 and beyond <u>Numerical Patterns</u> Children are able to show finger numbers up to 5	<u>Number</u> Children are able to subitise up to 3 Through play and exploration, children are beginning to learn that numbers are composed of smaller numbers (part whole model) They are able to match a numeral with a group of items to show how many there are Children are able to say the number names in order and can count reliably using 1:1 correspondence Children experiment with their own symbols and marks as well as numerals to represent their own maths problems <u>Numerical Patterns</u> Children can confidently count to 10 and back from 10

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	Children are developing understanding of ordinal counting and beginning to use it accurately in play (1st, 2nd, 3rd) Children are developing a sense of equal parts	Children are able to show finger numbers up to 10 Children understand the 'howmanyness' of each number Compares small groups of objects, saying when they have more or fewer
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Reception

Autumn	Spring	Summer
<u>Number</u> Children are able to subitise up to 3 Through play and exploration, children are beginning to learn that numbers are composed of smaller numbers (part whole model) They are able to match a numeral with a group of items to show how many there are Children are able to say the number names in order and can count reliably using 1:1 correspondence Children experiment with their own symbols and marks as well as numerals to represent their own maths problems <u>Numerical Patterns</u> Children can confidently count to 10 and back from 10 Children are able to show finger numbers up to 10	<u>Number</u> Children are becoming increasingly more able to subitise and are beginning to subitise numbers 1 to 5. Children continue to explore the composition of number up to 6 and beyond through the use of the part whole model They are able to recall number bonds to 5 and their knowledge of number bonds to 10 and doubling facts is increasing. <u>Numerical Patterns</u> As children's mathematical understanding develops they are becoming confident comparing numbers. They are using the language 'more than', 'less than', 'fewer' when making comparisons about amounts. They are also able to identify when two groups have the same amount.	<u>Number</u> Children have a deep understanding of numbers to 10, the composition of each number and can confidently subitise numbers to 5 They are able to automatically recall number bonds to 5 and some number bonds to 10, including doubling facts <u>Numerical Patterns</u> Children are able to verbally count beyond 20 and are beginning to recognise the patterns of the counting system They are able to make comparisons between numbers to 10, saying when they have the same, 'more than' or 'less than' Children are able to explore and represent patterns within numbers up to 10, including evens and odds, double facts and how quantities can be distributed equally.

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Children understand the 'howmanyness' of each number They are able to count out a smaller number from a large group, knowing when to stop and showing understanding of the cardinal principle. Compares small groups of objects, saying when they have more or fewer	Children can verbally count confidently to 20, without making errors.	
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Y1

Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
- Previous reception experiences and counting within 100 (3 weeks) Comparison of quantities and part-whole relationships (2 weeks) - Numbers 0-5 (2 weeks)	- Recognise, compose, decompose and manipulate 2D and 3D shapes. (3 weeks) - Numbers 0-10 (3 weeks) -Consolidation (1 week)	-Additive Structures (4 weeks) -Addition and subtraction facts within 10 (2 weeks)	-Addition and subtraction facts within 10 (1 weeks) - Unitising and coin recognition (5 weeks)	- Numbers 0-20 (4 weeks) -Position and direction (1 week) - Time (1 week)	- Time (1 week) -Measures (1 week) -Consolidation if needed (1 week) -Numbers 10-100 (4 weeks)

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Y2

Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
- Numbers 10 to 100 (4 weeks) - Calculations within 20 (3 weeks)	- Fluently add and subtract within 10 (1 week) - Addition and subtraction of 2 digit numbers (1) (3 weeks) - Introduction to multiplication (3 weeks)	- Introduction to multiplication (continued) (3 weeks) - Shape (2 weeks) - Introduction to division structures (1 week)	- Introduction to division structures (2 weeks) - Addition and subtraction of 2 digit numbers (2) (3 weeks) - Money (1 week)	- Fractions (2 weeks) - Time (1 week) - Position and direction (1 week) - KS1 Assessments	- Sense of measure (capacity, volume and mass) (2 weeks) - Multiplication and division (doubling, halving, quotative and partitive division) (3 weeks) - Consolidation

Y3

Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
- Adding and subtracting across 10 (2 weeks) - Numbers to 1,000 (5 weeks)	- Numbers to 1,000 (5 weeks) - Consolidation (2 weeks)	- Right angles (2 weeks) - Manipulating the additive relationship and securing mental	- Column addition (2 weeks) - 2,4,8 times tables (3 weeks) - Column subtraction (1 week)	- Unit fractions (5 weeks) - Time (1 week)	- Non-unit fractions (4 weeks) - Parallel and perpendicular sides in polygons (2 weeks) - Consolidation

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		calculations (4 weeks)			
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Y4

Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
- Review of column addition and subtraction (3 weeks) - Numbers to 10,000 (4 weeks)	- Number to 10,000 (1 weeks) - Perimeter (2 weeks) - 3,6,9 times tables (4 weeks)	- Co-ordinates (2 weeks) - 7 times table and patterns in Multiplication Tables (2 weeks) - Understanding and manipulating multiplicative relationships (2 weeks)	- Understanding and manipulating multiplicative relationships (3 weeks) -11 and 12 times tables (1 week) -Consolidation	- Review of fractions (1 week) - Fractions greater than 1 (3 weeks) - Symmetry in 2D shapes (2 weeks)	- Fractions greater than 1 (2 weeks) - Time (1 week) - Division with remainders (2 weeks) - Consolidation

Y5

Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
- Decimal fractions (5 weeks) - Money (2 weeks)	- Negative numbers (2 weeks) - Short multiplication and short division (5 weeks)	- Short multiplication and short division (1 weeks) - Area and Scaling (5 weeks)	- Calculating with decimal fractions (3 weeks) - Factors, multiples and primes (3 weeks)	- Factors, multiples and primes (1 week) - Fractions (1) (4 weeks) - Angles (1 weeks)	- Angles (1 week) - Fractions (2)(4 weeks) - Converting units (2 weeks)

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Y6

Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
- Calculating using knowledge of structures (1) (6 weeks) - Multiples of 1,000 (1 week)	- Multiples of 1,000 (1 week) - Numbers up to 10,000,000 (4 weeks) - Draw, compose and decompose shapes (2 weeks)	- Multiplication and division (4 weeks) - Area, perimeter, position and direction (2 weeks)	- Fractions and percentages (6 weeks)	- Statistics (1 week) - KS2 Assessments	- Ratio and proportion (2 weeks) - Calculating using knowledge of structures (2) (1 week) - Solving problems with 2 unknowns (2 weeks) - Order of operations (1 week) - Mean average (1 week)