

Mathematics

Early learning goals

Highlighted vocabulary from LEAP

highlighted vocabulary from NC

Number

- ☼ Have a deep understanding of numbers to 10, including composition of each number
- ☼ Subitise (recognise quantities without counting) up to 5
- ☼ Automatically recall (without reference to rhymes, counting or other aids) number bonds up to 5 (including subtraction facts) and some number bonds to 10, including double facts

Numerical patterns

- ☼ Verbally count beyond 20, recognising the pattern of the counting system
- ☼ Compare quantities up to 10 different contexts, recognising when one quantity is greater than, less than or the same as the other quantity
- ☼ Explore and represent patterns within the numbers up to 10, including even and odds, double facts and how quantities can be distributed equally

Mathematics		
Deep understanding of numbers 0-10 Number focus one number until they master it	Subitise Speed flash quantities, Dice, Dominoes, Estimating	Vocabulary ☼ Zero, one... ☼ Once ☼ Twice ☼ Subitise ☼ Number bonds ☼ Addition ☼ Add ☼ Altogether ☼ Subtraction ☼ take away ☼ Double ☼ Half ☼ Count ☼ Equal ☼ Same ☼ Different ☼ More ☼ Less ☼ Fewer ☼ Least ☼ Lots of ☼ Tens ☼ Ones ☼ On ☼ Back ☼ In between ☼ Estimate ☼ Odd ☼ Even ☼ Divide
Number bonds, addition, subtraction, doubling, halving Taught using objects, Numicon and pictorially	Verbally count beyond 20 Claps, stamps, jumps, fist pumps, on and back along the number line	
Compare quantities and distribute equally Through games and sharing	Odd and even patterns Taught using Numicon, tower blocks sharing	
2d shapes Star, triangle, circle, square, rectangle Taught during the number lesson for example, triangle is taught when we teach number 3 (triangles have 3 sides and 3 corners)	3d shapes Cube, cuboid, sphere, square based pyramid, triangular based pyramid Taught during the number lesson for example, sphere when we teach one as it has one surface (not an edge or face as it isn't flat)	
Vocabulary Straight, curved, flat, 2 dimensional, sides, corners		Vocabulary Surface, face, edge, vertices, solid, 3 dimensional
Concepts Number names (remembering some number names) Number sequence (orally counting numbers in order) One to one correspondence (counting objects by touching each one and saying a number name) Cardinal value (know how many are in a set) Subitising (look at a small amount of objects randomly arranged and , and know how many are in the set) Visualisation (understanding that numbers can stand for different things) Forwards, backwards, fewer, more		

Topics	Books and songs
Numbers in order 0-10	1 2 3 4 5 once I caught a fish alive The ants go marching One two buckle my shoe Rabbits rabbits 1 2 3
Number bonds	Barry the fish with fingers non-fiction book
One more/less	5 little monkeys, 10 green bottles, 5 speckled frogs 5 little ducks, 5 buns, 10 in a bed
Retrieval maths	Days of the week Months of the year Counting stars Hey numbers in a line
Shape	Shapes all around us non-fiction We're going on a shape hunt song Shapes songs

Step on words
Position
Equal parts
Number facts
Digit

LEAP
Star big under
Triangle little
Square in
Circle on

Sound bites
Counting objects "touch each one and say the number"
Counting Numicon "down then up"
Addition "count how many altogether"
Subtraction "take away how many left"
Doubling "doubling means twice as much"
Number bonds "pairs of numbers added together to make another number"
Estimate "estimate means having a good guess"
Even "divided into 2 groups equally"
Odd "cannot divide into 2 groups equally"
2d shares are flat

Progression

F1 autumn

- ✿ Arranges and places small world objects
- ✿ Shows an interest in lining up objects
- ✿ Spots numbers in the environment
- ✿ Knows and names a circle
- ✿ Sits for whole class counting
- ✿ Shows an interest in some number rhymes

F2 autumn

- ✿ Arranges and places small world objects in meaningful ways to recreate
- ✿ Counts objects using number names in the right order 0-5
- ✿ Can recognise 2 dots/objects without counting them
- ✿ Can add 2 single digit numbers up to 5 together to find the total using objects
- ✿ Knows and names a circle, triangle and square
- ✿ Joins in with whole class maths
- ✿ Knows which number is hiding on the number line by counting on
- ✿ Shows an interest in comparing quantities
- ✿ Can represent double facts by singing a song and using objects

F1 spring

- ✿ Arranges and places small world objects in meaningful ways
- ✿ Shows an interest in counting objects not necessarily using number names in order
- ✿ Joins in with some number rhymes
- ✿ Spots numbers in the environment
- ✿ Knows and names a circle and a triangle
- ✿ Sits and joins in with some of the class counting

F2 spring

- ✿ Arranges and places small world objects in meaningful ways
- ✿ Counts objects using 1-1 correspondence and number names in the right order up to 5
- ✿ Can recognise 3 randomly arranged dots/objects without counting them
- ✿ Can subtract 2 single digit numbers up to 5 together to find how many are left
- ✿ Spots numbers in the environment of personal significance e.g. house number, school bus
- ✿ Knows and names a circle, triangle and square and begins to show an interest in 3d shapes
- ✿ Joins in and answers questions in maths
- ✿ Knows the days of the week, months of the year, counting stars and hey numbers songs off by heart
- ✿ Knows which number is hiding on the number by counting on or back
- ✿ Knows what day it is by singing the song to help them
- ✿ Knows when one quantity has more
- ✿ Can represent double facts without a song up to 5
- ✿ Knows number names up to 10 and beyond

F1 summer

- Arranges and places small world objects in meaningful ways to recreate
- Can say numbers 0-5 in order
- Shows an interest in counting objects using number names in the right order
- Knows some number rhymes off by heart
- Spots numbers in the environment
- Knows and names a circle, triangle and square
- Sits and joins in with class counting

F2 summer

- ✿ Arranges and places small world objects to invent and recount narratives
- ✿ Counts object using 1-1 correspondence and number names in the right order up to 10
- ✿ Can recognise 5 randomly arranged dots/objects without counting them
- ✿ Can add and subtract up to 5 and beyond
- ✿ Spots numbers in the environment of personal significance e.g.' house number, school bus
- ✿ Knows and names a circle, triangle, square, star and rectangle and remembers 1 or more 3d shape names
- ✿ Joins in and answers questions using full sentences in maths
- ✿ Knows which number is hiding on the number line by counting on and back and can say what numbers it sits in between
- ✿ Knows what day it is by remembering what day it was yesterday
- ✿ Knows when one quantity has more, less or the same
- ✿ Knows when quantities are the same that the number is even
- ✿ Knows that when a quantity doesn't share equally that it is an odd number
- ✿ Knows double facts beyond 5 without support
- ✿ Knows number names in order up to 20 and beyond



EYFS maths long term plan

Retrieval structure	Vote for story: during stay and play, children place their block in front of the book they would like to focus on.
Early learning goals 11. Number ELG	Purpose: children are exposed to the language of tens and ones. Children say number names in order. Children watch object being counted (1-1 correspondence). Children have books and blocks in provision to practise during play.
Children at the expected level of development will:	Song: how many votes, how many votes, how many votes (Adam's family tune with clicks)
Have a deep understanding of number to 10, including the composition of each number; Subitise (recognise quantities without counting) up to 5; Automatically recall (without reference to rhymes, counting or other aids) number bonds up to 5 (including subtraction facts) and some number bonds to 10, including double facts.	Teach: Linked to literacy. Count the vote for each book. Model counting in tens and ones (build towers with the blocks)
	MTYT "MTYT "2 lots of 10" MTYT "7 ones" MTYT "2 tens and 7 ones make 27"
	Find the numbers on the number line "1 in the teens means 10"
	Show Numicon pictorial representation on the number line
	Which book has the most/least votes? How do you know? (because 27 is more than 3)
	MTYT full sentences: there are 17 votes for ... book. There are 13 votes for... book. 17 is more than 13.
	Enable: Teacher uses signs, visuals and gesture. Block counting is high enough for all children to see. TTYP is used to allow time for all children to think and talk through their calculations.
	Support: Support staff are deployed to support children who might need it for regulation or cognition. Some children might have their own resources. Some children might work with a TA at the back.
	Challenge: To speak in full sentences, to use talk to work out their calculations, to prove their answers using the number line and/or fingers, Numicon or objects.
	Vocabulary
	Zero, Count, Lots of, Tens, Ones, Most, Least, more, less
	Sound bites
	"zero means nothing" "1 in the teens means 10"
	Self-registration: during stay and play, children put their name in the tens frame.
	Purpose: children say number names in order every day. Children watch objects being counted every day (1-1 correspondence).
	Children visually see a tens frame being used every day. Children learn number formation rhymes and practise writing numbers.
	Children are able to revisit this during play as part of continuous provision.
	Song: twinkle twinkle little star, let's find out how many there are
	Teach: How do we find out how many there are? (touch each one and say the number)
	Count the names. How many children are here today? (MTYT full sentence there are 30 children here today) "3 tens and 0 ones" air
	write using number rhyme. Teacher writes it on the board. How many children are away today? (MTYT full sentence) Some children
	might work with a TA at the back with their own resources.
	Enable: Teacher uses signs, visuals and gesture. Tens frame display is at the right level for all children to see. TTYP is used to allow
	time for all children to think and talk through their calculations.

<p>12. Numerical Patterns ELG</p> <p>Children at the expected level of development will:</p>	<p>Support: Support staff are deployed to support children who might need it for regulation or cognition. Some children might have their own resources. Some children might work with a TA at the back.</p> <p>Challenge: To speak in full sentences, to use talk to work out their calculations, to prove their answers using the number line and/or fingers, Numicon or objects.</p> <p>Vocabulary Zero, How many, count, tens, ones</p> <p>Sound bites “Touch each one and say the number” “zero means nothing” Number rhymes for writing numbers</p>
<p>Verbally count beyond 20, recognising the pattern of the counting system; Compare quantities up to 10 in different contexts, recognising when one quantity is greater than, less than or the same as the other quantity; Explore and represent patterns within numbers up to 10, including evens and odds, double facts and how quantities can be distributed equally.</p>	<p>Calendar: day, date, month</p> <p>Purpose: children learn the days of the week and the months of the year in order. Children hear and say ordinal numbers every day. Children use the mathematical language related to time every day. The children are able to use the calendar during continuous provision.</p> <p>Songs: Days of the week and months of the year using Makaton</p> <p>Teach Yesterday was... MTYT “yesterday was Monday” Today is.... MTYT “today is Tuesday” Yesterday’s date was... MTYT “yesterday’s date was the 6th Today’s date is... MTYT “today’s date is the 7th Months of the year song Last month was... MTYT “last month was January” This month is... MTYT “this month is February”</p> <p>Enable: Teacher uses signs, visuals and gesture. Visuals for the days and months of the year. TYP is used to allow time for all children to think and talk through their calculations.</p> <p>Support: Support staff are deployed to support children who might need it for regulation or cognition. Some children might have their own resources. Some children might work with a TA at the back.</p> <p>Challenge: To speak in full sentences, to use talk to work out their calculations, to prove their answers using the number line and/or fingers, Numicon or objects.</p> <p>Vocabulary Months of the year, days of the week, yesterday, today, tomorrow, this month, last month, next month, before, after, ordinal number</p>
	<p>Number line: place value, 1-1 correspondence, number recognition</p> <p>Purpose: children watch the class number line being used every day. Children are exposed to a number line every day to support the understanding of place value. Children speak in full sentences to describe the position of a number. The children are able to use the number line during play to solve number problems.</p> <p>Song: hey number in a line, hey numbers you’re so fine!</p> <p>Teach: Hide a planned number on the number line (linked to new learning planning). Choose a lolly stick (that child works out which number is hiding on the number line while the class work it out with their partner. They have to discuss what number is hiding and how they know in full sentences. They can use their fingers to represent the number. “I know it is number 5 because 5 is in-between 4 and</p>

6." I know it is number 5 because 1 more than 4 is 5." "I know it is number 5 because 5 is 1 less than 6." Find 1 more. Check using their fingers (get 5 add 1 more) MTYT "1 more than 5 is 6" Find 1 less Check using fingers (get 5 take 1 away)

Enable: Teacher uses signs, visuals and gesture. TTYP is used to allow time for all children to think and talk through their calculations.

Support: Support staff are deployed to support children who might need it for regulation or cognition. Some children might have their own resources. Some children might work with a TA at the back.

Challenge: To speak in full sentences, to use talk to work out their calculations, to prove their answers using the number line and/or fingers, Numicon or objects.

Vocabulary

Zero, More, Less, in-between, count

Sound bites

"always check" "zero means nothing"

Marbles: the teacher uses marbles to reward whole class behaviour

Purpose (for maths): to count the marbles every time the children earn them, so that they are practising estimating, saying number names in order and watching the teacher count objects 1 at a time. The jars are displayed in the classroom so that they can talk about the amount of marbles in each jar.

Song: how many marbles, how many marbles, and how many marbles can you hear? Listen to the marbles, listen to the marbles, how many marbles can you hear?

Teach: Show the children some marbles- how many do you think there are? Count them into the jar. Represent that number on the number line.

As the marbles build up, estimate how many marbles are left to get. Which jar has the most/least?

Enable: Teacher uses signs, visuals and gesture. Block counting is high enough for all children to see. TTYP is used to allow time for all children to think and talk through their calculations.

Support: Support staff are deployed to support children who might need it for regulation or cognition. Some children might have their own resources. Some children might work with a TA at the back.

Challenge: To speak in full sentences, to use talk to work out their calculations, to prove their answers using the number line and/or fingers, Numicon or objects.

Vocabulary

More least less estimate how many

Sound bites

"estimate means having a good guess"

Termly overview



Aut 1 Focus: teaching each step of the retrieval part of the lesson and introducing a number per week.

Week	Retrieval section	Number of the week	New learning
1 transition	Self-registration, marbles		
2	Self-registration, marbles, number line		
3	All	Hide any number between 0 and 5 to introduce the activity. No focus number yet.	
4	All	Hide any number between 0 and 5 to introduce the activity. No focus number yet.	
5	All	Zero	
6	All	One	
7	All	two	

Displays

Key vocabulary prepped.
 Display book on a shelf with the display board ready to add vocabulary and key concepts taught. Tens frame and children's registration stars prepped.
 Maths displays around the room: self-registration, marbles, calendar
 Maths board: wipe board ready for creating a tally (small one if possible!) tens frame prepped on the board. New learning title and ready to display (adding, subtracting, doubling e.c.t)

Aut 2 Focus: teach addition, subtraction, number bonds, odd and even

Week	Retrieval	Number of the week	New learning
1	All	Three	
2	All	Four	
3	All	Five	
4	All	0-5	Addition
5	All	0-5	Subtraction
6	All	0-5	Number bonds

	7	All	0-5	Odd and even
<u>Displays</u>				
Ensure boards around the room are still in good condition (self- registration)				
Ensure that the board isn't cluttered- add to the book				
Spr 1	Focus:			
	Week	Retrieval	Number of the week	New learning
	1	All	0-5	Shape
	2	All	0-5	Pattern
	3	All	0-5	Patterns using tens frames
	4	All	Six	
	5	All	Seven	
Spr 2	Focus: teach numbers beyond 5			
	Week	Retrieval	Number of the week	New learning
	1	All	Eight	
	2	All	Nine	
	3	All	Ten	
	4	All	0-10	Addition
	5	All	0-10	Subtraction
	6	All	0-10	Number bonds
	7	All	0-10	Odd and even
Add key vocabulary to display book				
Sum 1	Focus: deep understanding of numbers 0-10			
	Week	Retrieval	Number of the week	New learning
	1	All	0-10	Shape
	2	All	0-10	Pattern
	3	All	0-10	Patterns in tens frames
	4	All	0-10	Doubling
Sum 2	Focus:			
	Week	Retrieval	Number of the week	New learning
	1	All	0-10	Halving

	2	All	0-10	Doubling and halving	
	3	All	Numbers beyond 10	Early learning goal part: Verbally count beyond 20, recognising the pattern of the counting system;	
	4	All	Numbers beyond 10	Verbally count beyond 20, recognising the pattern of the counting system;	
	5	All	Numbers beyond 10	Verbally count beyond 20, recognising the pattern of the counting system;	
	6	All	Numbers beyond 10	Verbally count beyond 20, recognising the pattern of the counting system;	
	7	All		Verbally count beyond 20, recognising the pattern of the counting system;	