

# Number Language Vocabulary booklet



## The Number Journey

This booklet is designed to support number language development stages. It should be used alongside the number language process; top tips and effective practice outlined on pages 7 to 12 in the Number Journey.

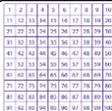
**Please note** that children understand far more words than they can actually say. Children need to hear new number vocabulary several times before they can actually say the word. The following chart encourages you to introduce new words for children to hear and understand at typical stages of development.

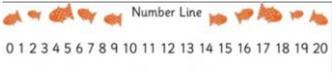
| Development Stage   | Number Language Continuum            | Number Language Milestone   | Identify new vocabulary for children to hear  | Definitions   | Example of when and how to introduce   | Visual Representations and practical exploration   | Making personal links  |
|---|--------------------------------------|---|---|---|--|--|--|
| <b>Birth to 11 months</b><br> |                                      | Makes sounds with their voice during social interaction   | Encouraging and praising the use of a range of different sounds   | Examples could include ba, ba, ba   | Look, note, and consider different sounds and voices.  | Playing interactive games<br>Introducing number rhyme songs  | Favourite songs, games, rhymes and stories.<br>   |
| <b>8 to 20 months</b><br>     |                                      | Develops an awareness of number names through their development of action rhymes and songs that relate to their experiences of number | Repeating numbers in songs linked to actions.<br>1 little woodpecker<br>2 little dickie birds<br>3 blind mice<br>4 firefighters<br>5 currant buns                                 | introduction of numbers vocabulary linked to tune and actions of number rhymes to 5                 | Establishing a specific bank of number rhymes to support the introduction of numbers names to 5.                                 | Introduce, rehearse and repeat props and actions   | Favourite songs, games, rhymes and stories.<br>Explorations of props linked to familiar number rhymes<br> |
| <b>16 to 26 months</b>  |                                      | Says some counting words randomly   | Number  | a count or measure  | Whilst playing comment "wow you said the number 3, that's right 1, 2, and 3!"  | Tune into the way children engage with resources:<br><br>Find ways to link the number with an action.  | Favourite songs, games, rhymes and stories.<br>Explorations of props linked to familiar number rhymes  |
|   | zero,                                |   | none, nil, nothing  |   |  |  |  |
|   | One, two, three, four five....twenty |   | Prioritise the introduction, repetition and rehearsal of the cardinal numbers: one, two, three, four, five to 20 NB: children love to hear you use name of large numbers as well. | Model the correct use of the phrase zero "All gone, zero"<br>After a child has eaten "None for me". | When appropriate comment about the number pattern "1 that's the number after 0" etc.<br><br>Use numbers to label sets of objects | Use numbers in meaningful situations. 1 more button to fasten. 1, 2, 3, steps to the top of the changing mat.<br> |  |
|   |                                      |   |   | Model the term how many by asking and answering your own question "how many ducks...3 ducks".       |  |  |  |

| Development Stage  |                           | Number Language Milestone  | Identify new vocabulary for children to hear   | Definition  | Example of when and how to introduce  | Visual Representations and practical exploration  | Making personal links  |  |
|--|---------------------------|--|--|---|---|---|--|--|
| <b>22-36 months</b><br> | Number Language continuum | <b>Uses some language of quantities such as more and a lot</b><br><br><b>Recites number names in sequence</b><br><br><b>Can predict missing word in number rhymes, number songs etc.</b> | <b>more</b>  | A greater or additional quantity  | Look for opportunities for children to make choices adding and using word more. E.g. "More cars?"   | Range of resources for children to explore quantity.  | Children to use term more to meet their needs throughout the day   |  |
|  |                           |  | <b>one more, no more</b>   | Increasing or decreasing a quantity by 1  | As above with the addition or subtraction of 1  | Range of resources, snacks for children to explore quantity.                                      | Children could hear terms many, a lot, when you meet their needs throughout the day e.g. during snack time.<br><br>( See pages 13 to 20 Number Journey) |  |
|  |                           |  | <b>Many</b>  | Used to compare quantities that not easy to count e.g. 'uncountable' quantities my bottle has less milk than your bottle. | Teach less once the term more has been introduced and understood. Model how to use less as the opposite of more                               |   |  |  |
|  |                           |  | <b>A lot</b><br><b>A bit</b><br><b>All</b><br><b>Some</b>                                      |   |   |   |  |  |
|  |                           |  | <b>Same, pair</b>  | A group is two or more things that go together. Pair is a group name for a group of two things.                           | Looking for the other sock, laying the table with paired items  | Range of paired resources e.g. socks, 2 cups and 2 saucers across the continuous provision areas. | Encourage children to talk about paired everyday items e.g. socks, shoes<br>( See pages 25 to 27)  |  |
|  |                           |  | <b>pattern</b>   | Things that are arranged following a rule or rules e.g. 1,2,3,5. ( the pattern is increasing by 1)                        | Number rhymes e.g. one elephant went out to play  | Number rhymes and props e.g. Puppet gloves.   | Make number rhymes using pictures of children as characters e.g. socks, shoes.<br>(See page 13- 20 number journey)   |  |
|  |                           |  | <b>after, What comes next?</b>   | A position e.g. 1 comes after 0<br>20 is after 19   | Once children understand the concept of after in relation to time they can then be introduced to the concept that after relates to a position |   |   |  |
|  |                           |  | <b>carry on, another</b>   | to extend from one point to another e.g. to carry on singing numbers 1 to 5   | Emphasis on carry linked to more/again/ another   |   |  |  |
| <b>30-50mths</b><br>  |                           | <b>Less,</b>   | Used to compare two or more sets of uncountable quantities<br>For example less milk. Less rain | Teach less once the term more has been understood. Model how less is opposite to more                                     | Whilst exploring quantities that can't be counted e.g. whilst playing in the water, sand, playdough   | Modelling how to accurately use the term  |  |  |
|  |                           | <b>Few, Fewer, fewest</b>  | Used to compare two or more sets of countable (discrete)                                       | NB: The meaning of fewer is an everyday word that is often confused with the term less.                                   | Model how to use the term fewer when gathering or playing with sets of resources  | Encourage children to refer to countable amounts Throughout the day.                              |  |  |

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|  |   | objects. For example 'There are two fewer apples in this bag.' "I have the fewest....."   | Encourage children to use the terms fewest, fewer and few when comparing an amount that a child can count. E.g. "I have a few puppets 1, 2, 3".<br><br>'There are fewer biscuits on Zainab's plate than on Trinity's plate,'<br><br>"I have the fewest number of peas" |  |   |
|  | <b>before</b>   | A position<br>e.g. 2 comes after 3<br>9 is before 10  | Once children understand the concept of after in relation to time they can then be introduced to the concept of before and how the term before then relates to a position  | Personalised Number tracks.  | <br>Birthday display boards   |
|  | <b>Order</b>  | Putting things into their correct place following a rule  | Encourage children to place items in the correctly number labelled containers. E.g. 5 rolling pins   | Labelled containers<br>Labelled bikes/prams  | As a group make number labels for resources, containers and areas around the provision   |
|  | <b>first, second, third, fourth, fifth last</b>           | Introduce the concept of ordinal number. Ordinal number language at this stage includes: 1 <sup>st</sup> , 2 <sup>nd</sup> , 3 <sup>rd</sup> , 4 <sup>th</sup> , 5 <sup>th</sup> last | It is important for children to use and say order of items in line positions. E.g. when lining up toys. But it is also important to support children to know the sequence. E.g. 1 <sup>st</sup> page, 2 <sup>nd</sup> page last page.                                  | Use ordinal number references during the routine e.g. 1 <sup>st</sup> we put on our sock, 2 <sup>nd</sup> we put on our coat.<br>Look for appropriate opportunities to label the order of children's natural instinct to line toys up. | Make visual timetables to encourage children to see the sequence of a set routine e.g. preparing for lunch ( see page 25- 27 number journey)   |
|  | <b>How many?</b>  | A large number of things<br>Few a small number of things<br>Lots a large amount   | Talk about amounts. How many things you can see around you.  | Model how to use each different term for amounts when gathering or playing with sets of resources  | Actively look for opportunities for children to talk about how many items they have e.g. collecting, gathering items   |
|  | <b>Guess How many</b><br><b>Nearly</b><br><b>Close to</b> | Introduce the concept of estimate by using the terms guess how many<br>Other terms to us eat this stage include: nearly, close to,  | Introduce estimate terms in a guided session. Model how and when you would guess how many items.   | Have fun playing estimating games. When children are secure with the term- use the term daily. I.e. guess how many trains are in that basket?<br>I think there are nearly 20 flowers on that grass.                                    | Encourage children to take the lead playing number guessing games<br><br>( see page 17 and 19 number Journey) |
|  | Match, different  | Introduce the concept Compare by using the vocabulary different and match   | During continuous provision look for ways to compare numbers E.g. that number is matches that one.....<br><br>many spots as that one<br><br>That's a different number....  | Range of resources in a range of fascinating containers  | Encourage children to take photos of different amounts of<br>Their favourite toys.<br>                        |

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|  |  | <b>between</b>   | Number either side or above or below it a specified number e.g. 4 is between 3 and 5   | Number tracks are excellent resources for children to see and compare numbers  | Place number track games   | Children make their own number track games to jump on a given number." I'm thinking of a number between 8 and 10" when they guess the number they jump on the number square. |
|  |  | <b>add, and</b>  | To bring two or more numbers (or things) together to make a new total.   | Children need to recognise that the term add/and are everyday phrases but has a specific role in maths. Demonstrate that to add something is to change the amount. When you use the term and in a sentence it also changes the amount. | Model how to use the terms add/and. E.g. "one more....."<br><br>"Another one...?"  | Whilst baking  |
|  |  | <b>Makes, altogether</b><br><br><b>how many more to, make...? altogether</b> | Putting two amounts together and finding out how many there are/ putting together words include how many more to, make...? altogether              | Model how and when to combine sets of objects using the term that makes (3) altogether   | Hunting for objects<br>Tidying up e.g. we emptied 2 buckets that's 3 altogether  | Encourage children to repeat the phrases makes and That's makes ...altogether as you play alongside them.  |
|  |  | <b>score</b>   | the number of points, goals, runs etc.   | Offer to keep the score for children- use different was to represent the ongoing score e.g. tallies, circles, numerals.  | Children record their scores   | Talk to others about the final score   |
|  |  | <b>take (away), leave</b><br><br><b>how many have gone?</b>                  | Subtracting is taking one number or amount away from another one finding out how many are left.<br>Take away phrases includes: how many have gone? | Children need to be clear that the term takeaway is a maths. Ensure children do not confuse this term with fast food.  | Demonstrate and model language that to takeaway is to reduce the amount.   | Talk about how many items have gone during play, Snack time etc. goodbye Sumba... 1 child has gone.  |
|  |  | <b>count,</b>  | To calculate the number of items in a group.   | ( see counting principles pg. 21 Number Journey)   |  |  |
|  |  | <b>sort,</b>   | To arrange or group in a special way e.g. by amounts   | Introduce the term sort during continuous play. Use specific term whilst children arrange and rearrange toys.  | Reinforce terms by modelling how you arrange groups of items.  | Number label containers .Use the term sort during the day. Let's sort these paintbrushes in to the right pots.   |
|  |  | <b>group, set</b>  | A group is two or more things that go together. Set is another name for group.   | During continuous provision talk about a set of resources on the shelves, Talk about the group of items that the child has. Clarify that children understand both terms. But avoid using both terms in the same sentence.              | Reinforce term 'group' by saving a group of items that a child was playing with. I like Joshua's set of toys             | Children place their items in set rings.    |
|  |  | <b>Sharing, half about, both, most, as much as</b>                           | :<br>Separate an amount into another amount<br>Splitting into equal groups/<br>Sharing language includes:  | Introduce how and when to share items into equal groups. When appropriate use the phrase. I like how you separated those toys.   | During play ask children how they would like to separate the resources.<br><br>Half the playdough<br>Half a cup of water | Give children time to demonstrate how toys are shared.   |

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|  |  |   | Half, about, both, most, as much as  | Actively use terms split and separate as well as sharing. Teddy has half...  |  |    |  |
|  |  | <b>number track</b>   | A number track shows numbers in order. Each space has a number in it. the numbers start at 1   | Number tracks should be introduced in guided sessions. Number tracks should be introduced before introducing number lines.   | Number track games   | Making personalised number tracks   |  |
|  | <b>Number Language Milestone</b>   | <b>Identify new vocabulary for children to hear</b>   | <b>Definition</b>  | <b>Example of when and how to introduce</b>  | <b>Visual Representations and practical exploration</b>  | <b>Making personal links</b>  |  |
| <b>40-60mths</b><br> | <b>Begins to use vocab involved in addition and Subtraction Uses language of more or fewer Says the number that is one more than a given number. Can explain their graphical marks. Counts forwards and backwards within the number sequence 1 to 10 Can count reliably from 0-20 say which number is one more or one less than a given number. May be able to explain the strategies used to solve problems. Use or ordinal language e.g. first, second, third.</b> | <b>odd,</b>   | A number that can't be split into two groups. Odd numbers always end in 1, 3, 5, 7 or 9.   | Guided children to see how and when groups of items can be sorted and split into two groups.   | Pairing children up<br>Sharing items between children<br>Counting out every other carton of milk | Read children books with odd and even number themes.  |  |
|  |  | <b>even</b>   | A number that can be split into two groups. Even numbers always end in 2,4,6,8,0   | To avoid confusion clarify children understanding of the everyday term odd.  |  |   |  |
|  |  | <b>every other</b>  | You can work out odd and even number by counting every other number  |  | ( See page 17 and 19 number Journey)   |   |  |
|  |  | <b>estimate-about the same as, just over, just under, too many, too, few, enough, not enough,</b> | Estimating words at this stage include<br>E.g. about the same as, just over, just under, too many, too, few, enough, not enough,   |  |  |   |  |
|  |  | <b>ten more ten less</b>  | Increasing or decreasing a quantity by 1 and or 10   | Support children to increase and decrease resources in sets of 10 more, 10 less, 1 more 1 less. This can be linked to using other visual images so children can recognise the number pattern e.g. number squares                             | Children complete number challenges to increasing sets of resources.                             |  Using number square to work out number patterns<br>Number square-A sequence of numbers in a grid. |  |
|  |  | <b>Sixth, seventh, eighth, ninth tenth. last but one</b>  | Reinforce the concept of ordinal number-(Ordinal numbers tells you about order). Ordinal number language at this stage includes: 6 <sup>th</sup> , 7 <sup>th</sup> , 8 <sup>th</sup> ,9 <sup>th</sup> ,10 <sup>th</sup>   last but one | It is important for children to use and say order of items in line positions. E.g. when lining up toys. But it is also important to support children to discuss number sequence. E.g. 1 <sup>st</sup> place 2 <sup>nd</sup> place last page. | Children investigate how and when objects pass a finishing line.                                 | Record, write and award ordinal number badges<br>Children begin to discuss choices  |  |

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|  |  | <p><b>sum, total</b></p> <p>A result of adding or subtracting.<br/>Sum/ total language includes: how many more is... than...? How many are left/left over?</p>   | <p>Supporting children to use the term sum and total by modelling how and when to use terms during play. Play alongside children demonstrates how you worked out the sum of 5 T-rex and 5 Brontosaurus.</p> | <p>Children to play games as number calculators</p>   | <p>Guiding children to talk through how to find totals and sum</p>   |  |  |
|  |  | <p><b>double,</b></p> <p>To make twice as much</p>   | <p>Guided sessions where children are supported to: Recognise double number patterns. Children actively explore how to double sets of items to 20</p>   | <p>Doubling games e.g. Bunny ears games</p>   | <p>Children make up doubles</p>   |  |  |
|  |  | <p><b>halving</b> Part, unequal, whole,</p> <p>Reinforce concept of sharing by using term the halving separate into two equal sets/groups/amounts)<br/>Halving language may include:</p>   | <p>Guided sessions where children are supported to: Recognise number patterns Children actively explore how to share sets of items to 20</p>  | <p>sharing games e.g. interactive online sharing games</p>  | <p>Children make double and sharing number pattern books e.g.<br/>When I double 1 I make 2.<br/>When I share 2 I make 1<br/>Etc. illustrate with a range of objects.</p> |  |  |
|  |  | <p><b>Number lines</b></p> <p>A number line is a line with marks that are spaced evenly and each one stands for a number. The numbers go up in size order e.g.</p> <p>1,2,3,4,5<br/>Or 10,20, 30</p>   | <p>Number lines should be introduced in guided sessions. Number tracks should be introduced before introducing number lines.</p>  | <p>Explore a range of number lines e.g.</p>  <p>0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20</p>                     | <p>Children make their own vertical and horizontal number lines</p>                   |  |  |
|  |  | <p><b>difference between,</b></p> <p>Comparing numbers to see: the difference between them. E.g. the difference between 20 and 10 is 10.</p> <p><b>Same as</b></p> <p>1 and 4 is the same as 5</p>   | <p>Guide children to compare number by counting and use and apply their knowledge of number patterns</p>  | <p>Play a range of games to support children to use visual images to see the difference</p>  <p>between number 10 &gt; 5</p> | <p>Children make number fact books</p>   |  |  |
|  |  | <p><b>Problem solving phrases</b><br/><b>Problem solving phrases include:</b><br/>What could we try next?<br/>How did you work it out?<br/>different<br/>list<br/>change- count out, share out<br/>left, left over<br/>describe, tell me, find<br/>think, imagine, remember<br/>tick, cross<br/>work out<br/>answer<br/>check<br/>same number/s<br/>different number/s<br/>missing number/s<br/>each</p> |   |   |  | <p>See sustaining children's number problem solving tips page 32</p> |  |

**References:**

Early Years Outcomes DfE 2013

Mathematical Vocabulary The National **Numeracy** Strategy 2000

*Elklan Speech and Language support for 0-3s 5.8.1 describing Words/Linguistic Concept Checklist Level 1-4*

<http://www.mathsisfun.com/>

First Illustrated Maths Dictionary by Kirsten Rogers 9781409556633