

Learning Trajectory Cardinality

Range	Unique Child: What a child might be doing	Positive Relationships: what adults might do	Enabling Environments: what adults might provide
1	Reacts to changes of amount when those amounts are significant (more than double).	<ul style="list-style-type: none"> - Notice and mirror children's reactions to changes in amount. - Use feeding, changing and bathing times for finger-play with young babies 	<ul style="list-style-type: none"> - Provide small groups of the same objects in treasure baskets, as well as single items.
2	<p>May be aware of number names through their enjoyment of action rhymes and songs that relate to numbers.</p> <p>Looks for things which have moved out of sight.</p>	<ul style="list-style-type: none"> - Take opportunities during play to sing number rhymes. - During personal care routines make a point of using numbers. - Play peek-a-boo hiding games with toys and people. 	<ul style="list-style-type: none"> - Plan to sing number rhymes with actions. - Involve families in sharing number rhymes from home cultures.
3	Uses number words, like <i>one</i> or <i>two</i> and sometimes responds accurately when asked to give one or two things.	<ul style="list-style-type: none"> - Use number words in meaningful contexts, e.g. <i>Here is your other mitten. Now we have two.</i> 	<ul style="list-style-type: none"> - Play hiding games so children notice that something has gone. - Provide varied sets of objects for playful opportunities for children to independently explore <i>lots, more, not many</i> and <i>not enough</i>. - Count while engaging in everyday tasks and while moving around.
4	<p>In everyday situations, takes or gives two or three objects from a group.</p> <p>Beginning to notice numerals (number symbols).</p> <p>Beginning to count on their fingers.</p>	<ul style="list-style-type: none"> - Encourage children to explore the collections they make, comparing amounts and counting some of the items, emphasising the last number, e.g. <i>1,2,3. There are 3 leaves.</i> - When singing number rhymes with props, draw attention to contrasting differences and changes in numbers, checking together <i>How many now?</i> Point out the number of things whenever possible, e.g. rather than just <i>chairs, say four chairs.</i> - Encourage children to use marks to represent their mathematical ideas in role play. - Help children to give or get two or three items, e.g. during snack time help children to take two pieces of fruit. 	<ul style="list-style-type: none"> - Provide buckets and bags for children to create collections of objects which they can count. - Provide mark-making materials indoors and outdoors for children to represent their own ideas in play. - Provide opportunities for children to explore cardinality in the environment using self-correcting resources, e.g. jigsaw with two ducks and the number two, or displays showing the numeral and the number of items. - Sing counting songs and rhymes which help to develop children's understanding of number.
5	<p>Counts up to five items, recognising that the last number said represents the total counted so far (cardinal principle).</p> <p>Links numerals with amounts up to 5 and maybe beyond.</p> <p>Explores using a range of their own marks and signs to which they ascribe mathematical meanings.</p>	<ul style="list-style-type: none"> - Encourage children to share items between two people or toys. - Use opportunities within daily routines to support children's developing sense of number. - Model and encourage counting and representing numbers within role play. - Model writing numerals, e.g. on badges, birthday cards and banners. - When counting objects with children emphasise the cardinal principle: 1, 2, 3, there are three cups. - Invite children to count out a number of things from a larger group e.g. <i>Can you get five crackers?</i> - Encourage children to use their fingers to show an amount e.g. when asking another child to share resources, to show on their fingers how 	<ul style="list-style-type: none"> - Provide numerals that children can pick up and use within all aspects of their play. - Model using objects to illustrate counting songs, rhymes and number stories, sometimes using pictures and numerals, to enable children to use those resources independently. - Play with either dot or numeral dice. Discuss that six on the dice is worth more than four. - Provide a variety of mathematical picture books and share them as part of 'warm and cuddly' maths times. - Support children to choose how to arrange collections of two, three and four objects in different ways. - Provide spaces to display children's ongoing mathematical thinking,

		many they need.	e.g. their own ways of representing their thinking, and scribing children's words.
6	Counts out up to 10 objects from a larger group. Matches the numeral with a group of items to show how many there are (up to 10).	<ul style="list-style-type: none"> - Model comparing numbers in problems about fair shares. - Encourage cardinal counting by saying how many there are after counting (...6, 7, 8. <i>There are 8 balls</i>). - In everyday activities, ask children to count out a number of things from a group (e.g. <i>Could you get seven cups for snacktime?</i>) - Encourage children to make predictions and visualise the outcome in stories, rhymes and songs if one (or two) is added or taken away. - Talk to children about the marks and signs they use to represent and communicate their thinking. As appropriate, model and discuss informal and standard ways. 	<ul style="list-style-type: none"> - Involve children in voting, e.g. for books to read at story time, using linking cubes with children's names on. - Discuss examples and display large numbers including hundreds, thousands and a million. - Pose everyday estimation problems and establish mental estimation benchmarks, e.g. more or less than 10. -Set up an estimation station where everyone records guesses; later count and order the guesses. - Drop marbles into a tin and ask the children to listen (without looking) to count how many there are. - Provide opportunities for children to match a number of objects to the numeral, including zero and display number lines to 100 at child height. - Provide dice, board and card games, sometimes involving older children, families and members of the local community. - Provide resources to make "staircase" patterns which show that the next counting number includes the previous number plus one. - Display children's mathematical representations, including explanations of the children's meaning making. - Provide resources to make "staircase" patterns which show that the next counting number includes the previous number plus one.

A Unique Child

When referring to the guidance for the Areas of Learning and Development, it is important to start with what is observed and understood about the individual child.

A typical progression in development and learning has been grouped into broad ranges in the column for A Unique Child. This is intended to support knowledge of a general pattern of child development.

Practitioners can identify a range that most closely describes the child's development and learning, and then consider the suggestions for adults within that range (or earlier ranges) to plan to support continued progress.

The guidance can also help to identify when children may need additional support, by referring to the key provided here which links the ranges to typical age spans.

In summative assessments, comparing best-fit judgements of ranges with typical age spans can help identify whether children are roughly on track, or are progressing more slowly or quickly. This information can be useful for leaders and managers in planning for the continual improvement of practice and provision in the setting.

Key to understanding the age ranges:



Reference: Birth to 5 Matters – Non-statutory guidance for the Early Years Foundation Stage
www.birhtto5matters.org.uk