INCCA Primary Mathematics Toolkit – Support material

Number: Numeration and counting – Suggestions for children's learning

The child has opportunities to...

- engage in playful counting activities with peers, e.g., encourage children to count how many times they can pass a ball or clap their hands within a given time.
 - connect counting into daily routines and everyday experiences, e.g., ensuring everyone has a seat by counting chairs, counting puzzle or jigsaw pieces by grouping them in fives or tens.
 - practice counting strategies such as counting down, counting up, counting in tens or hundreds, counting in halves, or skip counting, e.g., *through games such as Fizz Buzz*.
 - engage in activities and problems related to counting and estimation within real-world scenarios, e.g., *practice skip counting, counting across tens and hundreds, etc. with cash and coins.*
 - generate their own real-life or imaginative scenarios involving counting, e.g., *count money or items for sale while playing shop.*



- connect counting to practical experiences and discuss how counting helps organise and manage resources, e.g., when distributing materials such as pencils or paintbrushes.
 - analyse and evaluate answers to problems by comparing them with reasonable estimates.
 - explain and justify estimates and counting strategies, with peers, e.g., when counting cubes, one child may explain why they chose to count in fives while another chose to count in ones, based on the task requirements or the ease of counting.
 - identify patterns and relationships between numbers through activities such as skip counting, e.g., during a game of hopscotch, children can practice skip counting in twos or threes as they jump through the squares and can discuss the patterns they noticed in the numbers they landed on.
 - select and use appropriate counting strategies in calculations with larger numbers, e.g., using benchmarks, bridging through ten, compensating.

- sing counting songs or recite rhymes during transitions or breaks.
- discuss and compare how they subitise, estimate or count when taking part in games or challenges.
- compare how they and others represent and model numbers using different materials, e.g., *beads*, *blocks*, *numerals or drawings*.

Communicate

Apply and problem-solve

- use resources and strategies such as empty number lines, patterns in number and benchmark numbers to count forward and backward.
- identify and discuss the importance of counting in everyday activities, e.g., counting children in twos in a line before going on a walk.



- use concrete and virtual manipulatives to support counting when problem-solving, e.g., *use bowls, bun cases, etc. to organise the sweets for the party.*
- select and use a variety of counting strategies to support problem-solving, e.g., use of number lines, skip-counting, use of benchmarks numbers, rewording the problem, compensating.
- through discussion with peers, share and evaluate the effectiveness of different counting strategies used in problem-solving.
- apply counting strategies in problem-solving that is meaningful and relevant to their lives, e.g., organising and taking stock of books, PE equipment, art materials.
- explore how counting is used at a national level to provide information and for planning purposes, e.g., *through the census*, and carry out a 'class census'.



Understand and connect