# Early Years Mathematics – Adult-led Sessions

**Greater depth:**

Conceptual subitising small quantities when counting from a group

Uses common arrangements for organising to count up to 5 objects

Continues count from a known or subitised accurately

Challenge with unusual arrangements when recounting.

Encourage more than 2 representations and greater variety of representations of 5 (Wed)

**Ages and Stages:**

22-36mon - Selects a small number of objects from a group when asked

30-50mon - Knows that numbers identify how many objects are in a set

40-60 mon - Counts up to three or four objects by saying one number name for each item

**Mathematical focus:**

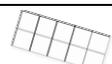Counting up to 5 objects – cardinality = counting to find how many

**Characteristics of Effective Learning:**

Critical thinking – same number, different arrangements

Active learning - perseverance – stick cards, sort until complete

| Session | Learning Intention | Practise for Fluency | Model  ⇄  Explore and Develop | | Generalise | Intervention | Possibilities for extending and applying in child-initiated play |
|---------|-------------------|---------------------|-------------------------------|--|------------|--------------|---------------------------------------------------------------|
| Mon | To give one number name to each object when counting up to 5 objects | Jump counting in 1s from 1-10 – emphasise breaking counting chain into discrete number names | Count 5 beads on bead string.  Teacher then children (check all red/white split), reverse and repeat (children do by themselves and check).  Puppet counts 4 1ps as 3p on video (misses one out).  Wants to buy something for 4pm.  Prove to her that there is 4p.  What has she done wrong? Counting pennies from bags (all have 4 pennies).   Counting ●●●● onto 5 frame. Count your friend's. If unsure get puppet to miss one again.  Puppet thanks and recounts but counts 5 (one counted twice).  What has he done wrong? (targeted q Ryder). | | We say one number name for each object when counting (each object only once).  Count children with hands on head (hands down when counted). Non-linear order. | *Charlie Ryder Kallum Mia Counted dough balls (splat as counted) to remember which ones have been touched.  Placed sticks in dough to match 1:1.* | Say one more number name when adding a brick to a tower Counting children in the line (tapping) Tuff spot water/grass – animals across bridge |
| Tues | To use the last number counted as the quantity of a group when counting up to 5 objects | Counting dance and freeze (number names to 10) | Model counting 3 animals on house paper and stem sentence "There are ___ animals in the house".  Model on ten frame and beads. Model counting 5 animals and children count from set of 12 beads onto ten frame (pairs).  Repeat 5 animals but different final animal.  Misconception - Say different number than final one for total. Children discuss what I did wrong. Last number.  Stem sentence to establish. | | The last number name we say is the quantity currently in the group Count groups of 5 to leave carpet (5 spots to stand on) Stop mid-count (in twos to send to | *Chloe Joseph Cheriece Revisited counting by moving onto frame from pile, stopping and recounting then stem sentence* | Animals, beads and ten frames on low table. Jumping on stepping stones Count as move on abacus - pause |

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| | | | Children individually have bag of beans (3,4 or 5). Count, check, tell friend, tell me. | stand in line to leave carpet). Stand on spots (reinforce 1:1) | | |
| **Wed** | To use number names as labels for groups of 5 objects | Finger counting target numbers (10, 5, 6, 3, 0, 2, 4, 5) Count up to on fingers and show | Describe the picture (Percy with 5 animals) – all think and talk. Model choosing pebbles and organising in 10 frame to count then draw 5 lines in a circle on the board. Count both to check they are 5. Children choose how to represent the animals using objects in box and on mini white boards. Count to check 5. Share representations – all show 5! | Gallery of representations of 5, all view. All organise and draw a dice arrangement of 5. | *Clara Asif Joe Sort spot cards to find 5s (what 5 is and isn't as a set). Spot cards matching pairs game (match 5s only). Encourage to name other quantities.* | Represent 5 as many ways as possible, keep photos of representations for working wall. 5 frames on dough table with biscuit case 5s and egg box 5s. Hungarian 10 frame on pattern table. |
| **Thurs** | To use number names as labels for groups of objects (up to 5) regardless of arrangement of objects | Count children (unison, teacher touch head), move places, re-count children, move places recount children. Did I touch each person once? | Oh no! I dropped the box of stick cards this morning and they are all mixed up. Help! Children all take card and count if it has 0,1,2,3,4, or 5 sticks. Put in piles and check they are the same. Some have gaps – are they the same? Model counting 1/3 2/2 4/0 cards to check they are all 4. Establish they are same quantities. | Count 5 sticks, spread and recount, throw in air and recount, put on knees and recount, put in square and recount, cross and recount. The group is the same number how ever they are placed. The last number name is the quantity. | *Robbie Ryan Maya Diya Game with 12 sticks. Roll 1/2/3 dice to lose 1, 2 or 3 (count from pile). Winner loses all first. Repeat with 5 dice.* | Spot cards (non-standard arrangements) with sorting collections on low table for matching. Challenge to balance 5 bean bags/quoits and re-count on floor when they fall (still same quantity) |
| **Fri** | To count up to 5 objects from a group | Counting dance freeze, continue with count, freeze (number names to 12). Repeat. | All place 10 counters onto 10 frame.. Model count altogether then check and reinforce with fingers, 10. "There are 10 altogether" I say, you say, we all say. Model taking 2 and putting in bowl. "There are 10 altogether but I have __". Model taking 1 more. Repeat. Model talking 0 more. Children choose how many to take for their bowl (0, 1 or 2). Stem sentence, each child in turn ("I have _"). Now take 1 more. Count number in bowl. Stem sentence. | Count children from one side of line on carpet to the other in 0, 1s, 2s, and 3s.. "I have __children" Count last number as label for group across the line. | *Maya Joe Revisited counting by moving onto frame from pile, stopping and recounting then stem sentence (preteach next week before session)* | Ask children to get 5 milks, fruit, plates, cups etc at snack time. Collections on dough table to count from (straws, pennies, sticks). |

**Small steps progression** →