Communicating: Exploring numeracy and early mathematical understandings



Learning possibilities for counting

Rote counting

This is when children memorise the name of numerals and can recite them, for example: as they walk up the stairs, count some toys, or count the number of grapes in their bowl. Young children may often leave out numbers or get the counting order confused.

Remember, like any other aspect of your child/children's development accurate counting skills take time and practice to develop.

One-to-one correspondence

This is when children count each object separately and use a number name for each object. Young children may often repeat a number name, miss an object or count the same object twice.

Play ideas to try

 Encourage your child/children to draw chalk circles on a concrete path or paved area. Help your child to write the numbers 1 to 5 in the circles. Invite your child/children to jump in the circles from 1 to 5 or from 5 to 1, saying the number out loud as they go.

This helps your child/children to learn about counting up and counting down.

Resources

'One grey elephant balancing' (action song)

(With all children sitting in a circle, choose one child to be the first elephant pretending to balance on a string going around and around the inside of the circle.)

One grey elephant balancing,

Step-by-step on a piece of string.

Thought it was such a wonderful stunt,

That he called for another elephant.

(first elephant chooses another child to join them)

Two grey elephants balancing,

Step-by-step on a piece of string.

Thought it was such a wonderful stunt,

That they called for another elephant.

Video

Eric Carle's 1, 2, 3 to the Zoo https://www.youtube.com/watch?v=IDY-2DsGILc

Song

One grey elephant balancing https://www.youtube.com/watch?v=nhBqS8Nbilk

- Play a game where your child/children dance to music and when the music stops, they jump into a chalk circle. Whatever the number in the circle, ask your child/children to do that number of moves, for example hops, star jumps, jump or hand claps.
- Use paint and collage items such as ice block sticks, milk bottle lids, cotton wool balls, buttons, fabric scraps and coloured paper pieces to make a counting picture, for example flowers in a garden, people, train carriages, cars or coloured spots. Count and talk with your child about what they have created, 'I can see flowers in your garden. Tell me how many have you made?', 'I can see you've draw some red cars, I wonder how many you have drawn?'
- Encourage your child/children to practise walking heel to toe along a line while singing 'One grey elephant balancing' (there is a link to this song in the resource box). You can use a chalk line, a skipping rope laid flat on the ground, a log, a garden edge or bricks in a line. Invite your child/children to guess how many steps it takes to reach the end of the line and write that number on a piece of paper. This helps your child/children to see a purpose for writing. Try walking along the line in different ways, for example, on tip toes, on heels or on hands and feet. Count the number of steps each time. What happens if mum or dad walk along the line? 'How many steps will they need?' 'I wonder why mummy didn't need as many steps?' This question encourages problem solving as your child/children may begin to recognise that a larger foot will need fewer steps than a child-sized footstep.
- Have your child/children put away cutlery from the dishwasher or after washing up. Encourage them to sort like items together, count and make simple comparisons of quantities, 'Let's put all the spoons away first. The small ones are teaspoons, they go here. Can you count them as you put them in.', 'Did you notice if there are the same number of knives and forks?', 'Are there more spoons or forks?'



Text: Carle, E. 1968, 1, 2, 3 to the Zoo, World Publishing, Cleveland

Engage

- Step 1. If you have this book at home, encourage your child/children to predict what the story is about from the cover. If not use the suggested video link in the resources box and watch the story together.
- Step 2. Read/watch the story.
- Step 3. Here are some questions to ask your child/children about the story.
 - 1. What was the first animal on the train? (elephant)
 - 2. How many giraffes were on the train? (three)
 - 3. How many carriages were there altogether? (ten)
 - 4. Why do you think the man at the end was holding 11 balloons?

Play ideas to try

- Invite your child/children to create a zoo using animal figures, stuffed toys, small people as visitors to the zoo, boxes or blocks for animal enclosures, and green fabric for grass. Encourage your child/children to sort and count the animals and people in different ways, for example 'Do we have enough enclosures for the hyenas, and cages for the lions? Let's count them', 'How many animals do we have all together?', 'Hmm we might need a ticket for each visitor to the zoo. Let's count how many people there are.'
- Build a zoo train out of shoe boxes or plastic ware. Place groups of animal figures, stuffed toys or like items, e.g. blocks into the train carriages. Encourage your child to count the animals in each carriage and invite them to make signs to show the number of items in that carriage. 'Great counting Zac, you put two dingos in that carriage. Let's draw a number 2 for it.'
- Talk about the order of the carriages, for example 'Are they in the right order? Let's count the numbers to be sure.', 'What if Zac switches these carriages around? Will they be in the right order?' Take the train for a ride around the room and talk about what happens if animals get off or on the train.
- Retell the story or parts of the story with your child/children using playdough. Create animals and the train
 from the dough or use the dough as the base and incorporate small plastic figures, blocks, sticks, shells, bottle
 tops, pebbles and leaves to recreate the story.
- Talk with your child/children about their favourite animal in the zoo and discuss its features, what it might eat and the noises it might make. Encourage your child/children to pretend to be their favourite zoo animal and take a photo, then invite them to photograph you being your favourite animal.

