Communicating: Exploring numeracy and early mathematical understandings



Learning possibilities for location and direction

Children learn about location and direction from everyday experiences, first by experimenting with ways to move their bodies, to navigate furniture and avoid falls. As they develop physical knowledge of being in a space children begin to see relationships between people and other objects or events. For example, a child may begin to make judgments, such as whether a toy car will fit into a small box or whether they need a larger box.

As your child/children learn about location and direction it's important to introduce spatial language including:

- Position: over, under, above, below, top, bottom, side, on, in, between, outside, inside, around, in front, behind, front, back, before, after, beside, next to, opposite, apart, middle, edge, corner.
- **Direction:** left, right, up, down, forwards, backwards, sideways, across, along, through, close, far, near, to, from, towards, away from.
- Comparison: wide, wider, widest, loud, louder, loudest, quiet, quieter, quietest, empty, full, half full, same, overflowing.
- Movement: slide, roll, stretch, bend.

Play ideas to try

Together with your child/children make a batch of playdough (see resource box). Invite your child/children to help gather, measure and mix the ingredients, and as they do, make comparisons (full, half) and talk about movement and direction (stir, around) and the irreversible change that occurs as the ingredients turn into playdough. Provide a range of items to encourage imaginative play, such as kitchen utensils (rolling pin, muffin tin, blunt knife, fork, biscuit cutter), small plastic animals/people, vehicles, pebbles, plastic plants and natural materials. Play together with your child/children, sharing ideas and observations about position (I'm going to put a cherry on top of my cake), movement and comparison (I'm rolling it into a long snake) and direction (I'm rolling it forwards and backwards, forwards and backwards).

- Gather a range of toy cars and items to use for roads, ramps and tunnels, for example sturdy cardboard, timber off cuts, hard cover books, flat baking trays, plumbing pipe off cuts and cardboard tubes. Invite your child/children to experiment with designing different courses for the cars. Talk with them about the position, direction and movement of the cars, 'That's so cool how the car zooms down the ramp and into the tunnel'. Ask open ended questions that encourage your child/children to make predictions, such as how fast a car will move on different slopes and surfaces, and whether it will fit in different sized tunnels and gaps, 'I wonder what might happen if we make the ramp a bit steeper?'.
- Play a board game together with your child/children. Most board games provide opportunities to talk about position, direction and movement. For example, snakes and ladders (forwards, backwards, up, down, slide,

Resources

'This is the Way We Wash Our Clothes' (song) (to the tune of "Here We Go 'Round the Mulberry Bush")

This is the way we wash our clothes, Wash our clothes, wash our clothes, See them getting clean and white, Rub-a-dub-dub, rub-a-dub-dub.

This is the way we hang them out, Hang them out, hang them out, See them blowing in the wind, Flippity-flap, flippity-flap.

This is the way we iron them flat, Iron them flat, iron them flat, Soon our wash day will be done, And nice clean clothes for you and me.

Video

Mrs Mopple's washing line https://www.youtube.com/watch?v=0GaqOkYWUHU

Song

Wet washing hanging on the line https://www.youtube.com/watch?v=gcuH0nSDhkM

Recipe

Playdough

https://earlychildhood.qld.gov.au/earlyYears/learningathome/cooked-playdough.pdf



roll), checkers/Chinese checkers (over, across, jump), jenga (up, out, on top, below, beside, slide, fall), and connect four (above, below, beside, between, fall, drop). Board games also support children's emerging numeracy, including numeral recognition, counting (spaces on a board, checkers pieces) and subitising (dots on a dice, small groups of tokens).

Text: Hewett, A. 1994, Mrs Mopple's washing line, Red Fox Picture Books, UK.

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 does Mrs Mopple say? Blow wind.... (blow)
 - 2. What animals did you see in the story? (any of the following pig, turkey, chicken, Jersey cow, rabbit)
 - 3. What do you think the animals wearing Mrs Mopple's clothes did after the story ended?
 - 4. Why do you think Mr Mopple didn't believe that the animals were wearing her clothes?

Play ideas to try

- Invite your child/children to wash their dolls clothes. Put a shallow tub of soapy water and some pegs near to a washing line that your child/children can reach (string or drying rack will do). Encourage your child/children to gather their dolls clothes or other small items for washing (socks, face washers, singlets). Support your child to wash each item, and squeeze/ring out the water, while singing *This is the way we wash our clothes* (see the resource box). Encourage your child/children to peg each item on the washing line, by showing them how to manipulate the pegs and how to place the clothes over the line before using the peg. Use position and direction words such as, 'Fold the sock over the line, that's right... Now pinch the peg together and pop it on top. Perfect! I wonder if you can put the other sock next to that one.'
- Read or view the story a couple of times, then together with your child/children, gather some clothes similar to those in the story and some soft toys to be the animals. Put these items near a clothes line or a drying rack and invite your child/children to act out the story. If you have the book, keep it nearby. As they play, encourage your child/children to remember repeated phrases from the story, such as 'Blow wind, blow!' You can support their recall by saying part of the sentence and pausing for your child to finish it, for example, 'It blew so strongly that... [snap] went the peg' or 'Tossed in the air, twice around the.... [haystack] and over the... [farmyard].'
- Spend time with your child/children doing deep listening. Invite them to lie still with you in a shady place outside, with their eyes closed and listen. Notice the different sounds that are all around the wind in the trees, insects buzzing, birds calling, dogs barking, cars driving, people talking, doors closing, the sound of their own breathing. Encourage your child/children to identify familiar sounds, guess what unknown sounds may be, and consider where they are coming from. Talk about how sounds from far away are different to sounds that are close.

