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.

Resources

'Hey diddle diddle' (song)

Hey diddle diddle,

The cat and the fiddle,

The cow jumped over the moon.

The little dog laughed,

To see such fun,

And the dish ran away with the spoon.

Video

Goodnight Moon

https://www.youtube.com/watch?v=vbKoviP0fTQ

Sona

Build it up

https://www.youtube.com/watch?v=GjRllV1tK4E

- **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

- Invite your child/children to build with blocks or construction bricks. Enhance play possibilities with small cars, flat cardboard for ramps and dolls/figures, animals, plastic plants, fabric and natural items. Building offers opportunities to talk about position (put another block on top), direction (that's the tunnel for the cars to drive through), comparison (mine is the tallest building!) and movement (watch this car roll down the ramp).
 Encourage your child/children to join in the song 'Build it up' (see the link in the resource box) as they build.
- Play 'Stuck in the mud' with the whole family. Choose an open area in the yard with space to run around. One player is 'it' and they have to chase and tag another player. Once tagged, they become 'stuck in the mud' and must stand with their legs apart until someone crawls through their legs to free them. When they are free, it is their turn to be 'it'. During the game, use words to describe each other's movement (crawling, sliding, slithering, running, through, around, in, under). Have fun observing happens when an adult has to crawl through a child's legs. How will they fit? Encourage your child/children to be problem solvers.
- Make a bubble mixture of 1 tablespoon of sugar dissolved in 1 cup of hot water. Gently stir in 2 tablespoons of dishwashing liquid and allow to cool. Make a loop a pipe cleaner to use as a bubble blower. Invite your child/children to blow bubbles. You may need to demonstrate how to gently blow through the loop until a bubble forms. Watch where the bubbles go and encourage your child/children to talk about their size (wide, tiny, enormous, biggest), movement (floating, drifting, gliding) and direction (up, down, across, through, under, over). Try making a big bubble blower from a wire coat hanger. Dip it in a shallow tray of bubble mixture, then



move it quickly through the air to make a bubble. Notice how the big bubbles move – do they float as high? How do they look when they move?

Text: Brown, M. 1975 Goodnight moon, Harper Collins, New York

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. Can you point to the slippers? (under the bed)
 - 2. What was on the table? (a comb, a brush and a bowl full of mush, and a light)
 - 3. Where do you think the old lady went at the end of the story?
 - 4. (Look at the position of the moon in the window in each picture) Why do you think the moon is getting higher?

Play ideas to try

- Together with your child/children, look closely at one of the pages in the story book that shows the whole
 room. Give your child/children clues about the location of a character or object in the picture, for example 'I'm
 looking at something that is above the fire but below the picture of the cow jumping over the moon. Do you
 know what it is? Yes, that's right, it is the clock.' When your child/children is confident, encourage them to give
 clues to locate something of their choice in the picture.
- Encourage your child/children to notice the picture of the cow jumping over the moon. Are they familiar with the song Hey Diddle Piddle? Sing the song together with your child/children (see the lyrics and song link in the resource box). Talk about the rare words in the song and their common meaning a fiddle is an old fashioned word for a violin and a dish is another word for a bowl. Invite your child/children to gather items to dramatise the song, such as soft toys for the cat, cow and dog, a ball for the moon, and a small bowl and spoon. Encourage your child/children to sing the song while acting it out with their props.
- Invite your child/children to reflect on the story and create their own bedroom or another place (even an imaginary place) using drawing, painting, collage or playdough. Encourage your child/children to talk about their art by asking open ended questions, for example 'Tell me about your painting Maisy...', 'Tell me what is happening here...', 'What might happen next?', 'I like how you made that, tell me how you did it.'

