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.

Resources

'Open shut them' (finger rhyme)

Open, shut them

Open, shut them

Give a little clap

Open, shut them

Open, shut them

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Lay them in your lap.

Creep them, creep them

Creep them, creep them

Right up to your chin

Open wide your little mouth

But do not let them in!

Shake them, shake them

Shake them, shake them

Shake them just like this

Roll them, roll them

Roll them, roll them

Blow a little kiss.

Video

Berenstain Bears: Inside, outside, upside down https://www.youtube.com/watch?v=fAVdDwP2aP0

Song

Open, shut them

https://www.youtube.com/watch?v=ziSR3ZLeDR4

Play ideas to try

- Play a game of Simon Says. If your child/children are unfamiliar with the game, explain the rules (only do the
 action if 'Simon says') and have several practices to help them become familiar with the game. Demonstrate
 being Simon using location, direction and movement words, for example 'Simon says crouch down low. Simon
 says turn around. Simon says jump forward. Jump back!' Invite your child/children to join in several rounds to
 gain their confidence, then encourage them to have a turn at being Simon.
- Take a look at different types of maps pictorial maps (e.g. of a gallery or zoo), road maps, online and interactive GPS maps, satellite images (weather maps) and globes. Talk with your child/children about maps What do they already know about maps? What do different maps show? Why do we need them? How are they different/same? Use the language of location, direction and comparison when talking about places on maps, for example 'Look, here is Toowoomba. Yes, we live there, don't we?' 'Way over here is Cairns. Who lives there? That's right grandma and grandad. It's a long way away.' 'Aunty Susie is here in Brisbane. She is much closer to us.'
- Invite your child/children to help with cooking and preparing food. Healthy foods such as sandwiches, sushi,
 omelettes or homemade pies provide the perfect opportunity to talk about position (my sandwich has bread on
 the outside and cheese on the inside), direction (lay the cucumber across the rice and roll it into sushi),
 comparison (fill it half way with mince then we can put mashed potato on top) and movement (roll the sushi,
 fold the omelette over).



Text: Berenstain, S and J. 1968, The Berenstain Bears: Inside, outside, upside down, Random House, 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. What is the Berenstain Bear inside of? (box)
 - 2. How did the bear get to be upside down? (the box was put on the trolley upside down)
 - 3. What might Mama bear say to the bear when he gets home?
 - 4. What do you think will happen when the father bear gets to town?

Play ideas to try

- Build a house for teddies or dolls using empty cardboard boxes of different sizes (cereal boxes, shoe boxes, fruit boxes, packing boxes). Invite your child/children to arrange the boxes in different ways to create rooms and levels in the house, and add smaller boxes or blocks for furniture. Use the language of location and direction during play, 'Big teddy is tired so he is going upstairs to the bedroom. Lie down on the bed, big teddy, and I will get a blanket from inside the cupboard. I will put the blanket over you so you can go to sleep.'
- Just like the Berenstain Bears, encourage your child/children to describe their location throughout the day, for
 example, when hanging out washing: 'I am outside, under the clothesline. I'm pegging the washing along the
 line and above the ground'. Have fun thinking of different ways to describe location, 'I am under the clouds
 and the moon and above the soil and worms', 'My toes are in my socks, my socks are inside my shoes and
 my shoes are walking along the path.'
- Play a game of 'What am I?' Choose an object in your home that can be seen but do not tell what it is, for
 example a lamp. Give three clues to describe where the object is located, for example 'I am on top of the
 desk. I am beside the computer. I am near the books. What am I?' Invite your child/children to use the clues to
 identify the object. When confident with the game, encourage your child/children to have a turn at giving
 location clues for an object of their choice.

