# Communicating: Exploring numeracy and early mathematical understandings 

## Learning possibilities for location and direction

The beginning step in the process of learning about data is to recognise and identify the attributes of objects. Young children may already have some knowledge of the attributes of objects related to home life such as choosing favourite foods, tidying toys, selecting their favoured colour cups, and choosing clothes to wear. Learning to sort and categorise objects according to an attribute requires lots of hands on experiences where children can test out ideas, and sustained conversations that help to build children's knowledge and use of descriptive language.

## Play ideas to try

- Gather a magnet and a range of metal items (e.g. paper clip, teaspoon, biscuit cutter, pencil sharpener, hair clip, key) and non-metal items (e.g. plastic brick, buttons, cork, matchstick rubber band, marble). Invite your child/children to investigate and share ideas about which materials are attracted to the magnet and which materials are not. Encourage your child/children to record their findings by drawing or photographing their sort. Extend the play by inviting them to make predictions and experiment with other items around the house.


## Resources

## 'Two things’ (rhyme)

Two things, two things they make a pair.
Look at me, l'll show you where
A pair of ears, a pair of pants,
A pair of feet to dance and dance
A pair of eyes so I can see,
And on my legs a pair of knees.
A pair of socks, a pair of shoes,
Lucky that they come in twos.
A pair of legs, a pair of arms,
And in my hands a pair of palms.
With those two hands I clap, clap, clap,
Then lay them neatly up in my lap.

## Video

A pair of socks
https://www.youtube.com/watch?v=-llhbA7esYw

## Songs

My favourite things
https://www.youtube.com/watch?v=0lagRZBvLtw
Sock song
https://www.youtube.com/watch?v=RvzxHBROk4Y

- Together with your child/children, listen to the song My favourite things (see the link in the resource box). Talk with them about their favourite things, for example their favourite toy, fruit, game, colour or animal. Invite your child/children to do a drawing or painting to represent their favourite things, and share this with you or other members of the family. Notice similarities, 'Hey, we both have horses as our favourite animals', differences, 'You love bananas the best, but rockmelon is my favourite', and model posing simple questions, 'I wonder what Hattie's favourite fruit is?'
- Make a pizza restaurant at your house. Simple and healthy pizza bases can be made from pita bread spread with tomato paste. Together with your child/children, make a list of different toppings, such as cheese capsicum, mushroom, olives, ham and pineapple. Model writing the words for these toppings and invite your child/children to draw a picture to represent each. Support them to ask family members which toppings they would like on their pizza, and to mark this on the list (use a different coloured pen for each family member). Support your child/children to use the data they have collected to make the pizzas, 'Lily has the red ticks, so I can she wants mushrooms, capsicum and pineapple.' Model making simple inferences, such as 'Look, we all chose pineapple - it must be everyone's favourite topping.'

Text: Murphy, S. 1996 A pair of socks, 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. (point to the main sock) What colour is the sock? (red and blue)
2. (show the page that says 'and not quite like me') How are these socks different? (one is dirty, it doesn't have stripes)
3. (point to the socks in the washing machine) What made these socks sudsy and slimy?
4. What problem was solved with a simple blue patch? (the hole in the sock)

## Play ideas to try

- Together with your child/children, look carefully at the socks on each page in the story. Talk about things that are the same, 'They are both red and blue', and things that are different 'This one has red stripes here and here, and this one does not.' Gather a basket of mixed up socks. Pick up two socks and ask your child/children what things are the same and different about them, and decide if they are a pair, 'What about these? What do they have the same? Yes, they're both white, but look when I put them together... are they the same size? Hmm, you're right, they're not a pair. Let's put the big one over here and the small one over there.' When you have finished, invite your child/children to group and count the pairs, 'Six pairs of daddy's socks, two pairs of Billy's socks and one sock on its own!'
- Invite your child/children to make sock puppets from old socks that have lost their partner. Gather materials such as buttons, beads, wool, fabric off-cuts, pens, scissors and glue. Model for your child/children how to put the sock on your hand and make a mouth by putting your fingers in the toe and thumb in the heel of the sock. Invite your child/children to draw or stick on eyes, hair and other decorations of their choice. Once finished, encourage your child/children to engage in imaginative play, puppet shows or retelling familiar stories with their sock puppets.
- Share the rhyme Two things with your child/children and invite them to think of actions for the rhyme.

Encourage your child/children to think of other things in pairs, including body parts (elbows, ankles, cheeks), clothes (gloves, earrings) and everyday objects (chopsticks, training wheels). These may include things that are unique to your home, such as a pair of blue cushions. Invite your child/children to record their ideas by drawing or painting.

