Communicating: Exploring numeracy and early mathematical understandings



Learning possibilities for data

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

 Make a feely bag by placing an everyday item, such as a hairbrush, whisk, toy car, shell, golf ball, teddy bear or keyring in a pillowcase. Invite your child to

bear or keyring in a pillowcase. Invite your child to reach into the bag without looking and describe how the item feels, for example hard, round, spikey, smooth, cold, fluffly. Ask your child what they think it might be before taking a look. Was their guess correct? Notice the

Investigate different musical instruments and the sounds they make. Together with your child/children, explore the website *Instruments of the orchestra* (see the resource box). Click on an instrument family (strings, woodwind, brass, percussion) then click on each instrument to hear its sound, 'I can hear a tap, tap, tap sound when I listen to the snare drum. I wonder what sound the bass drum makes? You're right, it's a boom, boom, boom sound. It's a much deeper and lower sound than the snare drum, isn't it?' Talk about the similarities between different families of instruments for example, strings, skins, metal, wood, keys. Also talk about the ways that they are played for example, stringed instruments are played with a bow, percussion instruments are struck to make sound. Invite your child/children to make some instruments using items from around the house (see the link in the resource box) and experiment with the sounds they make.

attributes your child described, 'You're right – it is a brush! You said it was spikey and hard. I can see the spikey bristles that go through your hair, and the hard handle.' Repeat the game, sorting the items into group

as they are revealed, such as kitchen things, round things, soft things, metal things.

Invite your child/children to choose something for dinner, but it has to be something the whole family will like. Talk about the meals your family usually eats, and together come up with a short list of three. Invite your child/children to draw pictures of these three meals on a large piece of paper. Next, encourage them to ask each family member to put a tick next to the meal they want. When everyone has made their choice, support your child to count the ticks and make simple inferences, for example, 'How many ticks are there for spaghetti bolognese? Yes, there's two. And what about sausages and salad? Hmm, only one. Are there any ticks for fried rice? No, nobody chose that. So which meal shall we cook? Yes, spaghetti bolognese it is! It got the most ticks.'

Resources

Story

Handa's surprise

https://www.youtube.com/watch?v=7bcdzh31As4

Websites

Instruments of the orchestra

http://www.sfskids.org/classic/templates/instorchframe.asp? pageid=3

DIY Instruments that really work

https://redtri.com/homemade-instruments/slide/1

Song

Animal boogie

https://www.youtube.com/watch?v=25_u1GzruQM

Rhvme

African animals

https://www.earlylearninghq.org.uk/latest-resources/african-animals-poem/



Text: Browne, E. 1995, Handa's surprise, Walker, London.

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 in Handa's basket? (fruit banana, guava, orange, mango, pineapple, avocado, passionfruit, tangerines)
 - 2. What happened to the fruit on the way to Akeyo's house? (animals took it)
 - 3. How do you think Handa felt when she saw the tangerines in the basket?
 - 4. Why do you think the goat ran into the tangerine tree?

Play ideas to try

- Together with your child/children, look carefully at the pictures in the story Handa's surprise. Notice the trees, cows and clay pots; the type of houses and clothing; the animals; the way Handa carries the fruit; and the way mothers carry their babies. Ask your child/children open ended questions, such as 'Do you think Handa lives in a city like we do? How can you tell?', 'What animals live in Australia? I wonder where all these animals live?', 'Handa carries the fruit on her head. How do we carry the fruit home from the shop?' Encourage your child/children to notice similarities, 'Handa is visiting her friend Akeyo, just like you visit Nikki to play at her house.'
- Make a fruit salad. Use a mix of familiar fruits, and if possible, some unusual fruits your child/children might not have tried, such as starfruit, dragon fruit, persimmon, longan, rambutan or guava. Encourage your child/children to use their senses to observe the fruit when it is whole its colour, size, shape, skin texture, hardness/softness and smell. Invite your child/children to help cut or peel each fruit. Is the skin thick or thin? Can you eat the skin? What does it look and smell like inside? Are there seeds? What pattern are they in? Encourage your child to try each fruit and describe the taste and texture is it sweet, sour, tangy, soft, crunchy, juicy? Talk with your child/children about sorting the fruits by their characteristics (red fruits, round fruits, juicy fruits, fruits with skin you peel or skin you eat) and which fruits they like best. Together with your child/children, cut the fruit into bite-sized pieces and combine it into a fruit salad for a healthy dessert.
- Gather two dolls to be Handa and Akeyo, a basket, some small items for fruit (e.g. marbles, rubbers, buttons) and some toy animals. If you don't have toy animals, invite your child/children to make some using plastic bricks, collage or socks. Lay the items on a table or floor rug, along with the book and invite your child/children to retell the story, or think of a new adventure for Handa and Akeyo.

