

Numeracy and Computational Thinking Learning

Coding is the new mathematical language of the 21st century and develops computational thinking skills.

Children learn coding through estimating, predicting and describing the everyday phenomena they observe. Here are some ideas for play at home, which includes use of robotic toys as well as unplugged coding.

Activity

Join into children's play and encourage them to draw their own story maps using the robot as the centre of their story.

- What is the story about and how will they space out their story events or sequence.
- How many grids will the map have and what will be the distance between the grids.
- How many steps will the robot need to move from one place to another on the story map.

Teacher Scaffolding and Questioning

When children start coding their robot from step A to step B, encourage them to calculate the distance moved.

- How much distance did the robot travel to go from one point to another that is longer distance/shorter distance /centimetres/ metres/inches?
- How can we try coding to some other place on the story map and see if it travels the same distance?

Further Ideas for Coding of Story Maps

Look for a sequence of code and how things that are structured and follow a design or pattern when you are:

- Preparing a cake/pancake.
- Dressing for the day or dressing for bed.
- Doing the shopping and travel through super market aisles.
- Reading a story.
- Walking down to the post office/park.
- Catching a train to a destination.
- Playing in the playground. Footy/Sport games rules

Links to Everyday Environment

Find the...

- Physical space for your child's story plan.
- Favourite physical artefacts/puzzles in your house.
- Coordinate grids in your house.
- Code the robotic toy to do a set task in your house.
- Draw/Write the sequence of code given to the robot in your house.
- Measure the distance travelled.

