

AN ALL-INCLUSIVE TEACHING AND LEARNING FRAMEWORK FOR INTEGRATION OF ROBOTIC PLAY

The program materials and activity ideas are built around the program's all-inclusive teaching and learning framework that encourages critical reflection, discussion, debate and action.

STEP

ACTIVITY/ACTION

Planning

- *Co-design activities and provocations based on reflective conversations with children's existing schemes (strengths and interests)*
- *Introduce the robots intentionally via play-based demonstrations and allow children to tinker with them freely, but safely.*

Emotional Scaffolding through posing problem-based scenarios

- *Through story-telling and empathy-based situations, scaffold children and engage in inquiry-based conversations.*
- *Encourage children to use verbal communication skills to share their ideas. Example, of inquiry starters can be about picking up a problem-based situation using the robot as the central character*

Building children's inquiry skills

- *Allow 'wait-think-share' time for children to brainstorm with their peers on how to solve the posed problem.*
- *Generate a social-emotional learning environment where the robot is the central theme in the children's stories.*
- *Support the children to program/code the stories and tasks for the robot to perform or act out/role play.*
- *Enable time for children's understanding of social cues such as turn taking while speaking, and regulating behaviour while communicating with their peers.*
- *Continue the free-flow of children's inquiry using open-ended questioning techniques*
- *Let the children think out loud while proposing solutions to save the robot.*

Adult-child, peer-peer and child-robot interactions

- *Within the reciprocal and multi-interactions between the adult, children, and the robot (remember the robot can also talk, move, act, smile, laugh etc..).*
- *Consider children's construction of artefacts and drawings as a measure for children developing social emotional skills.*

Sharing of children's ideas and representations emerging from robotics play

- *Allow time for whole-group discussions and children's presentations of their constructed artefacts and drawings.*