ACADEMY RESOURCE

C01

LESSON PLAN

Drawing with Programmable Toys

Early Learning goals

- Use digital technologies and media to investigate and problem solve (EYLF Learning outcome 4.5)
- Use materials to create art works to express ideas and make meaning (EYLF 5.3); And use digital technologies and media for creative expression (EYLF Learning outcome 5.5)

Activity

With a white or black piece of cardboard attach a texter on the back of a programmable toy and encourage the children to draw their own creations and to problem-solve with it.

Extension

For the more experienced children, they can do this themselves with a desktop publishing program allowing them greater opportunities for being creative with their photographs.

ICT Resources

- Programmable toys such as bee bot
- White or another piece of coloured cardboard
- Different coloured markers.
- Drawing and painting program.

ICT Levels of Differentiation

- To be able to switch on/off
- To be able too move bee bot randomly
- To program forwards and backwards
- To be able to program forwards/turn/return

Ideas for adapting to my context

Lesson Procedure: How will it develop?

Introduction:

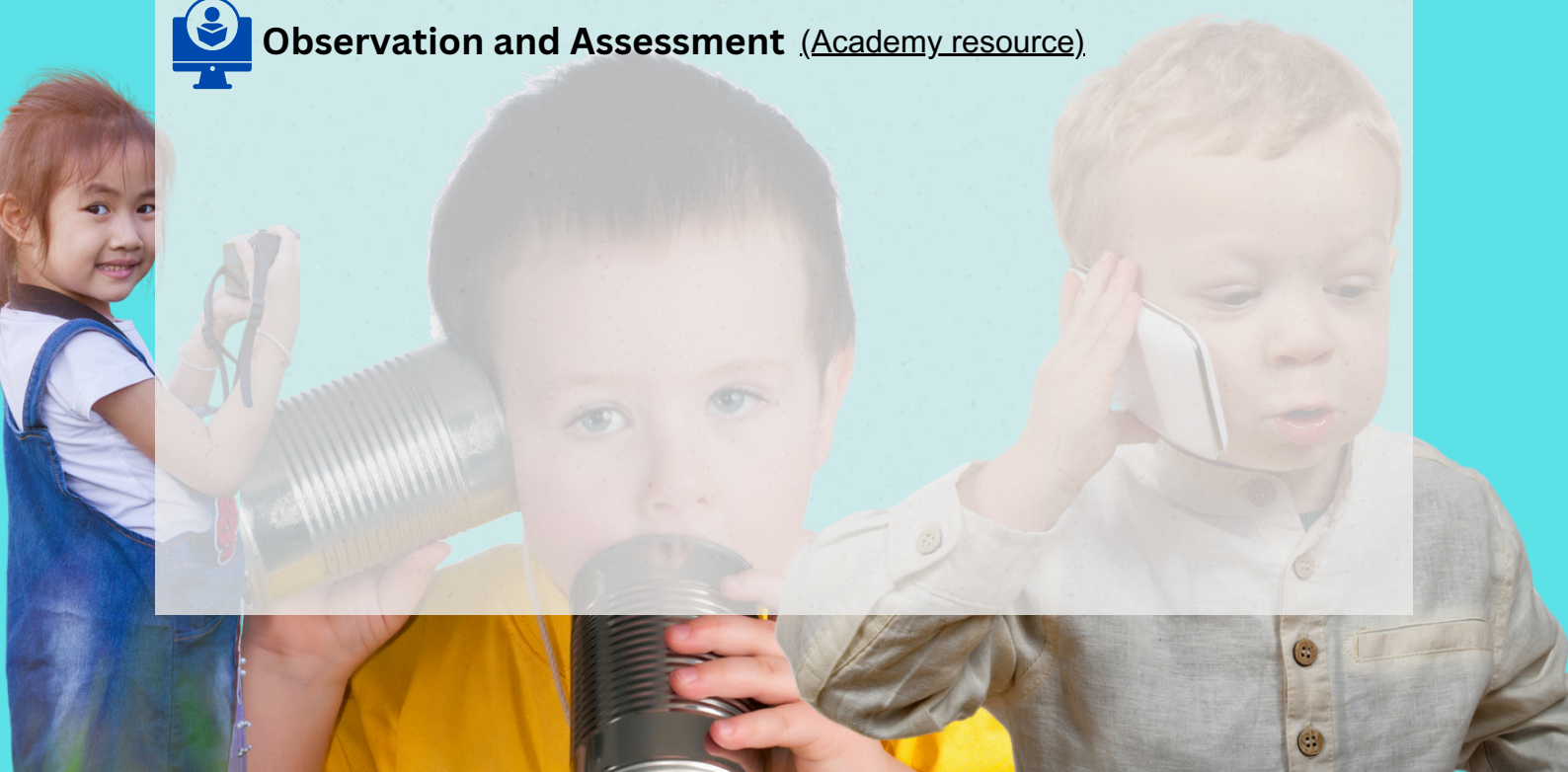
Main Activity:

Group work:

Independent practice:

Critical Reflection (Academy resource)

Observation and Assessment (Academy resource)



Instructions

1. Introduce control technology to the children. They will benefit from this introduction for two reasons. First, they need to develop a familiarity and confidence with all kinds of technological devices which have a control element. If you have a torch or microwave, for example, these are good to start of with.
2. Ensure that the structured tasks have a clear purpose from the children's point of view, but which require the children to practice using various control functions.
3. Introduce the children to the idea of a program or a set of instructions. Try using cooking recipes or sequencing games or puzzles as an example.
4. Have an adult be blindfolded and instructed by the children to walk across the room to reach a particular target location. Children can try this themselves but use a large bag over their heads.
5. Plan a black and white theme.
6. Attach a black and white texter to a programmable toy.
7. Demonstrate to the children to operate the digital technology and how to problem-solve with it.
8. Encourage the children to plan the directions that they need to give the programmable toy.
9. Assist the children in drawing with the programmable toy.

Higher Order Thinking Skills	Computer Skills	Key Learning Areas
Problem-solving: Children decide how to move the Bee Bot to create desired shapes or drawings.	Basic device operation: Switching the Bee Bot on and off.	Creative Arts
Creative thinking: They use the toy as a drawing tool, experimenting with movement and patterns.	Directional control: Moving the Bee Bot randomly and purposefully.	Mathematics (Early Numeracy)
Planning and sequencing: Children must mentally visualize and sequence steps to achieve their design.	Programming basics: Inputting commands to move forward, backward, turn, and return.	Language and communication
Reflection: They may compare their creation to others, think of improvements, or explain their process.		

Why This Robot Lesson Plan for Preschool Is Different

This free sample is more than just a fun classroom activity. It's a classroom-ready robot lesson plan for preschool that saves you planning time, helps children explore creativity and problem-solving, and connects directly to your professional growth.

Inside the ICT in Education Teacher Academy, every plan is designed to make robotics in early childhood education practical, meaningful, and rewarding.

Every Section of This Lesson Plan Matters

- Learning Goals
  - For teachers: No need to spend hours aligning to EYLF — it's already done. Save time and gain confidence that your lesson is purposeful.
  - For children: Activities target creativity, problem-solving, teamwork, and digital literacy — the skills they need most today.
- Activities & Extensions
  - For teachers: Step-by-step guidance makes it easy to pick up and teach right away. Extensions give you built-in ways to differentiate.
  - For children: Advanced learners stay challenged, beginners get supported, and everyone stays engaged.
- ICT Resources
  - For teachers: Plans are designed for the tools you already have — Bee-Bots and Dash Dots. No new purchases required.
  - For children: They gain more value from familiar robots, using them in fresh and educational ways.
- Observation & Assessment Table
  - For teachers: Record children's sequencing, collaboration, and creativity in real time. Saves time with reporting and planning next steps.
  - For children: Learning becomes more personalised because you can track progress and extend their skills effectively.
- Reflection Prompts
  - For teachers: Simple, practical questions help you improve your next lesson without extra effort.
  - For children: Lessons keep getting better every time you teach them, because they are refined and adapted.
- Higher-Order Thinking & Key Learning Areas
  - For teachers: See clearly how robotics builds problem-solving, literacy, science, and creative arts skills.
  - For children: They don't just play — they learn to think critically, create, and explore across subjects.
- Professional Growth Connection
  - For teachers: Every plan is linked to a workshop that counts towards CPD hours. This is professional learning that happens in your classroom, not in a lecture hall.
  - For children: Because you grow in your teaching practice, they benefit from richer, more engaging robotics experiences.

Membership Benefits You Can't Get From Free Activities
When you join the ICT in Education Teacher Academy, you move beyond free ideas to a complete professional toolkit:

- A growing library of robotics lesson plans for preschoolers.
- Workshops that connect every lesson to CPD hours.
- The Wisdom Tool for 24/7 solutions and adaptations.
- A professional community where educators share and collaborate.

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Try the membership for just $20 AUD per month — cancel anytime, risk free.
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Turn the Bee-Bots, Dash Dots, and other programmable robots you already have into powerful learning experiences that save you time, strengthen your teaching, and inspire your students.