

Bee-Bot Basics: Forward and Backward Fun!

30 minutes

Journey into Robotic Movements

WHAT THIS LESSON DOES

This lesson guides teachers through introducing Bee-Bots to their students. It includes activities such as a numbers strip game and a colours strip game, a demonstration of Bee-Bot's functions, and a class activity where students can practice giving commands to the Bee-Bot. The lesson concludes with a celebration of the students' achievements.

WHAT STUDENTS SHOULD BE ABLE TO DO

- Understand the basic functions of a Bee-Bot, including its forward and backward movements.
- Develop skills to give instructions to a Bee-Bot, using number and colour strip activities.
- Apply knowledge of Bee-Bot functions to guide it along a number line.
- Work collaboratively in small groups to practice Bee-Bot instructions and movements.
- Reflect on the process of giving instructions to a Bee-Bot, promoting critical thinking and understanding.

BEFORE THE LESSON

- Have the number strip and colour strip direction games open and tested on your IWB or projector before pupils arrive.
- Check Bee-Bots are charged and working. Aim for one per small group.
- Lay out a number line floor mat per group, or print the card variations included in the Class Activity step if you are short of mats.
- Clear a space on the floor where the class can gather in a circle for the demonstration.

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HOW THE LESSON RUNS

Meet the Bee-Bot

Numbers Strip Activity

Colours Strip Activity

Demonstration

Development

Clear the Code

Class Activity

Wrap Up and Celebrate

TEACHING MOVES

1. Meet the Bee-Bot. Hold up a real Bee-Bot as you introduce it so pupils connect the on-screen ladybird to the robot they will drive later.
2. Numbers Strip Activity. Model one turn yourself first, thinking aloud as you choose arrows, then invite pupils up to give the ladybird instructions to reach the target.
3. Colours Strip Activity. Run the same game on colours so pupils see the instructions work the same way whatever is on the squares.
4. Demonstration. Press forward and backward slowly, one at a time, and count the step aloud so pupils see one press equals one square.
5. Development. As pupils try commands, ask them to say what they think will happen before they press go. This is where the thinking happens.
6. Clear the Code. Have the whole class say 'clear the code' aloud and make an X with their arms as you press the X button. Repeat it until it is automatic.
7. Class Activity. Circulate and set each group a target number to reach. Let pupils explore the rotate buttons if they find them; those come up properly in later lessons.
8. Wrap Up and Celebrate. Ask one or two groups to talk through how they moved their Bee-Bot to a number, then flag that Bee-Bots make a good Aistear free-play choice.

WHAT TO WATCH FOR

- Pupils forget the Bee-Bot remembers earlier commands, so it drives off doing the previous instructions plus the new ones. Insist on the clear-the-code routine before every attempt. If a Bee-Bot behaves oddly, ask 'did we clear the code?' rather than fixing it yourself.
- Pupils press a button repeatedly expecting continuous movement, not realising each press adds one step to a sequence that runs when they hit go. Show that one press equals one square and that the Bee-Bot waits until the go button before moving. Count presses aloud together.

DIFFERENTIATION

- Emerging: Pair the pupil with a partner and let them do the physical button-pressing while the partner counts the squares.
- Developing: Give a short target of two or three squares and ask them to predict where the Bee-Bot will stop before pressing go.
- Proficient: Set a longer target further along the number line, or ask them to reach a number using both forward and backward moves. Have them explain their sequence back to you before they run it.