

TECHNOLOGY



Be my robot

SEQUENCE 1

Age group	6-9 y.o.
Prior knowledge	None
Material needed	Be my Robot box, colour pencils, scissors, glue.
Subjects	Computer Science
Skills involved	Use symbols to represent data (arrows for the direction). Setting algorithms. Understanding how robots operate. Knowing what the programmer does.
Time to carry out the sequence	1,5 h

Step 1: Introduction

Ask the students what they know about computers, programs, coding, etc., beforehand. Let them share their knowledge.

Watch the short video about robots from the movie Robots (2005):

<https://www.youtube.com/watch?v=zyLI71Z0RF4>

Make a short discussion about these robots, how they can move, etc.



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TECHNOLOGY

Step 2: Discover the box

Let pupils discover the content of the box.

Ask pupils about their thoughts and what their ideas are for the next steps.

Step 3: Storytelling

Read the story Be My Robot. Discuss the story: look at how the robot guides the girl out of the forest and what it looks like. Let the students draw their own ideal robots on the worksheet provided in the box.

Step 4: Working with the symbols

Keep the pupils focused on the theme of the story: how the robot used his hands to bring a girl home.

Let the students take the movement symbols from the box and describe their ideas about what the symbols mean and how they relate to the robot in the story.

The pupils practise using each symbol in pairs. They show the symbols to each other and move their hands as the symbol indicates.

Ask pupils to open the envelope and take a table.

Let pupils put the right symbol into the right cell of the table.

Step 5: Practice activity. First meeting with the code

Explain to the students that they have to code the robot so that it does hand gymnastics. Demonstrate how it works. Show the code to the class and explain why it is the way it is.

Use the code from “Creating the elements” and ask the students to be your robot and follow the instructions.



TECHNOLOGY

Display the code on the wall.

Ask the students to put their hands on the table, point to the first symbol and say START. The students follow the code and move their hands as the code indicates.

Step 6: Practice activity. Make their own symbols and coding the Robot

In pairs, students discuss and design their own symbols for hand gymnastics.

After writing their own code, the students test each other's code. One of them is the programmer who tests the code drawn on the "robot" by saying "Start" out loud.



TECHNOLOGY

SEQUENCE 2

Age group	10-12
Prior knowledge	None
Material needed	Be my Robot box. Computer with Internet connection.
Subjects	Computer Science, coding.
Skills involved	Use symbols to represent data (arrows for the direction). Plan and create the sequences of steps to reach a desired outcome. Understand that robots follow given instructions. Know what the programmer does.
Time to carry out the sequence	2 h

Step 1: Introduction

Ask the students what they know about computers, programs, coding, etc., beforehand. Let them share their knowledge.

Watch the short video about robots:

https://www.youtube.com/shorts/QvfK6f_8iGE

or

https://www.youtube.com/watch?v=UAG_FBZJVJ8

or search for something You like to show to pupils.

Discuss what these robots are made of, etc.

Step 2: Discover a box

Let students discover the content of the box.



TECHNOLOGY

Ask pupils about their thoughts and what their ideas are for the next steps.

Step 3: Discuss what a program is etc.

Write on the board the words: **program, programmer, code** and **robot**.

Word by word, ask pupils to give their definitions.

After checking pupils' answers and discussing each new word, the teacher gives the definitions of these words and puts them on the board for pupils to refer to during the class activity.

Step 4: Searching for information on the Internet, create posters

The students open the computers and look for information on the subjects previously discussed. Before the search, ask the students to discuss what they are going to look for. Display a few ideas on the wall and let the students choose.

The students make posters about what they have found. There should be posters about the most popular programming languages, famous programmers, computer company owners, etc.

Step 5: Storytelling

Ask pupils to read the story Be My Robot. Let them imagine what the robot looks like and how it leads the girl out of the forest. Then, let them draw.

Step 6: Working with the symbols.

Ask students how they understand the meaning of sequences. Give them examples of everyday life, like going out of class:

1. Stand up
2. Go to the door



TECHNOLOGY

3. Open the door
4. Go out
5. Close the door

You can ask pupils about your example: does everyone understand it the same way? Can You be more specific?

Tell the students that only the imperative sentences are in the sequence.

Let the students look at the contents of the envelope and consider the meaning of the symbols.

Using the story and their drawings of the story, ask them to write a sequence explaining how the robot guided the girl out of the forest.

Step 6: Presentation of the sequences based on the story

The pupils, in pairs, present their drawings and the sequences based on the drawings and show how the code works.

