XTREM BOTS

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ROBBIE & SOPHIE

RECCOMENDED AGE:

More than 5 years.

LEARNING OBJECTIVES:

- To introduce the child to programming environments
- To develop motor skills
- To recognize and mimic facial expressions
- To view the robot movements made with the remote control.

MATERIALS:

- Robot
- Remote control

CONTENTS:

- The remote control and its commands
- Introduction to Programming

SKILLS:

- Development of creativity
- Development of logical thinking
- Learn to use age-appropriate programming code
- Learning to manage frustration

COMPETENCIES:

Linguistic communication: The child interacts with the robot, reacting to different facial expressions. S/he learns to verbalize each of the movements that the robot makes as s/he programs them on the remote.

Mathematical competence and basic competencies in science and technology: The child develops logical reasoning by understanding the movements made by the robot and executed with the remote control commands.

Digital competence: The child learns the basic fundamentals of robotics. S/he learns using technology and begins to understand the importance of technologies for the functioning of the world in general.

Learning to learn: The child learns to internalize the information and seeks to interact with the robot so that it executes the desired movements.

Social and civic competence: As the robot makes use of facial expressions, the child learns to interact with these, in such a way that s/he identifies them with the way of relating to the people around him/her.

Sense of initiative and entrepreneurial spirit: The child creates different routes and movements on each occasion, thus developing creativity and his/her own personality. With the execution of each command, s/he makes independent decisions that allow him/her to continually imagine new scenarios.

Awareness and cultural expressions: By incorporating music and dance, the child can express his/her feelings through dance, enhancing personal qualities such as creativity or imagination.

LESSON PLAN PROPOSAL:

Starter:
In order for the child to learn the remote control commands, a recognition exercise is carried out. To do this, the adult will ask the child to press each of the buttons in turn. As s/he presses the buttons, the child must explain what order the robot carries out. The child will be asked to press the button again in order to internalize the order executed.

Development:
An object will be placed on the ground and the child will be asked to move the robot to the object. Next, the child will be asked to follow the same route, but this time the robot will have to overcome various obstacles and carry out various interactions along the way (dance, sound, speak, walk, move...) The difficulty will increase as the child becomes familiar with the robot's orders, until the child is able to program the robot with the "program" button and manages to reach the destination avoiding obstacles and making the necessary interactions along the way.

Plenary:
The child says goodbye to the robot with a dance. S/he can imitate the robot's movements in dance mode or create his/her own choreography to the beat of the robot's music.

SEN (Special ecucational needs):

For children with ASD, the robot's facial expressions will be studied. First, the child should identify and mention the emotions observed in the robot and then s/he should imitate each of the emotions observed. Once this objective has been attained, the child will be asked to explain why s/he thinks the robot is expressing that emotion (angry, happy, sad...) Lastly, we will show the child how the robot moves and let him/her interact with it.