serious science mixed with serious fun

EXTREME STEAM SCIENCE KIDS

ROBOTICS PROGRAM

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FOR CODE & GO

ACTIVITY - 15

This class will cover the following topics

Creating original mazes
Teamwork
Creating programs to make Colby travel through a maze

Materials needed

Different lengths of wood ie: 2x3's, 2x4's
Building blocks
Large legos
Different lengths of 1" PVC pipe
1" PVC, 1" elbows, 1" connectors and 1" t's
Rubber mallet or channel lock pliers
Mural paper
crayons
Colby robot

This class is dedicated to pure creativity and design. The object of this lesson is to have the children create a maze using whatever materials are available and be as creative as they want. The building concept gives them a perspective about using different materials and how to plan, design and construct a maze. They will design their maze on mural paper which they can color and create whatever they want to enhance their design. Once the teacher has approved their completed design they can begin building their maze out of the materials given to them.

Children will work in pairs and work together to achieve a finished project. Once their maze is completed they must program their mouse robot to go through their maze. Have the different teams program their mouse robot on other team's mazes. This generates fun and excitement while building upon their Critical Thinking, Collaborative Teamwork, Creativity, and Adaptability 21st Century skills.

It is suggested that your 2x3's, 2x4's and PVC pipes are cut in 6", 1 foot and 2 foot pieces. MAKE SURE THE EDGES ON ALL OF YOUR MATERIALS ARE WELL SANDED!!! This will help prevent children from getting splinters when working with the different materials.

Make sure to have enough materials for at least 5 teams of 2 children. Plan on having enough 2x3's or 2x4's and 1' PVC pipe, elbows, connectors and tees. An itemized list of PVC materials has been included along with maze blueprints for your convenience in lesson 14. Feel free to create your own materials list for your unique program. Children really enjoy this activity because they get a chance to use their hands and construct their own masterpiece!

During this process the children should be encouraged to test and retest their designs to make sure their maze works with the programming of their mouse robot.