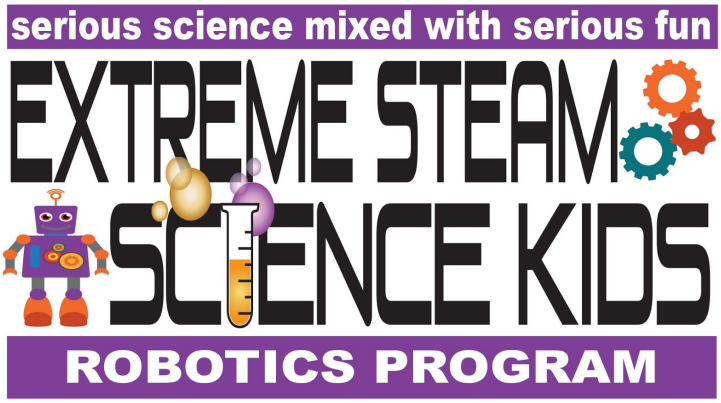

EXTREME STEAM SCIENCE KIDS
ROBOTICS PROGRAM
FOR CODE & GO

ACTIVITY – 7

This class will cover the following topics

Understand what a maze is
How to create a maze
Program Colby to go through a maze

Materials needed

Pictures of different mazes
Painter's tape
Colby robot
Green maze grids
Maze cards 2 - 6
Purple maze walls
Orange tunnels
Yellow cheese

This lesson is centered on using the different maze cards as practice with maze design which will help enhance the children's programming skill development, critical thinking, collaborative teamwork and following directions. Once the children have an idea how to assemble the maze grids from lesson 6 and how to use the program cards they can use maze cards 2 - 6 to challenge their skill. Have them start with the lower numbered, easier maze cards and move to the more difficult ones. The idea of this exercise is to have the children get experience in

assembling different objects, follow pictorial directions and finally to program their mouse robot to complete each maze design.

It is important to understand that the mouse robot will move one square for each forward or backward command that is pressed. It will not move forward or backward when a turn command is pressed, but just stay on the grid square as it turns. Your children will learn that after each turn command is pressed it must be followed by a forward or backward command if they want their robot to move after a turn command is given. In order to make this activity easier you can use the program cards alongside the purple maze walls to assist with the children's programming. They can place the appropriate program card next to each maze grid to assist in their programming. Place a blue arrow card next to each green maze grid for a forward command and an orange or purple arrow program card for a left or right turn when needed based on the maze design. You can also incorporate counting at this point. ASK, "How many blue forward commands are needed for this part of your maze?" "What turn card do you need to use to make your mouse robot follow your maze?" Encourage your children by asking questions rather than giving them the answer. The idea is to help them learn to critically think!!!!