LESSON 7

Path Application

Introduction:

This lesson will show the campers how to use a new application called "Path". Path will introduce the students to sequence, events, and sensors through its simple program. They will draw, drag, and drop interface. The campers will plan, program, and execute Dash's adventures while they learn the basic concepts of computational thinking. While the campers are learning how to use this application they will be taught:

- Algorithm design
- Command sequences
- Control flow
- Sensors and Events
- Problem solving

Lesson Objective-

Today we will:
Control Dash using the "Path" application.
So We Can:
Complete basic drag and drop programming challenges, small puzzles using coding, and will control Dash by drawing" a route for Dash to follow.

Content Vocabulary

1. ***Robot***- "a machine capable of carrying out a complex series of

Teacher Demonstration

Estimated Lesson Time: Approx. 20

1. Remind campers how we communicate with robots, by programming and coding. *(Teacher listening for any clarification that is needed.)*

2. Define what drag and drop means. (review content vocabulary)

3. * Model for campers how the drag and drop program works. *Open Path application and

actions automatically, especially one programmable by a computer." (Google)

2. ***Coding***-A system of signals used to represent letters or numbers in transmitting messages. The instructions in a computer **program**. A way to communicate with the robot. (Google)

3. ***Programming***- the action or process of writing computer programs.

4. ***Drag and Drop***- move (an icon or other image) to another part of the screen using a mouse or similar device, typically in order to perform some operation on a file or document.

connect Dash to the device.
*Open the first puzzle:

- Show the campers how to drag their finger to create a path that Dash will drive on.
- The icons on the top of the screen must be dragged and dropped on the dotted line.
- Once all of the icons are dragged and dropped, tap Dash's head on the screen of the device and the program will start.
- Watch Dash drive the route that was chosen and make the sounds and gestures the camper's programmed him to make with the blocks code.

4. The puzzles get more challenging as the campers complete each adventure.

Extension Activity

Camper Grouping: Pairs
(Recommended to group high/low campers together.)

1. Each student can start and create a path for Dash. Campers can take turns taking Dash on different adventures.

	2. Once both camperss in the group have had practice taking Dash on their created adventure they can write about their favorite one explaining where Dash went and how they programmed Dash to take that specific adventure. 3. Have campers share their stories and compare and contrast their programming to their partners and the class. **Lesson Closure** Ask the campers what they did in robotics today? ***Possible responses:*** "We drove Dash and took it on an adventure." "We dragged and dropped and programmed where Dash would travel." ***Higher Order Thinking (H.O.T)*** Ask students what was different/same about what they did yesterday compared to what they did today with Dash.

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