

Introduction to the GO Application

1st-2nd Grade

Lesson Plan 1

Introduction:

Why does robotics play an important part in education? With a great emphasis being placed on science, technology, engineering, and mathematics in our education system, robotics play an important part in motivating and exciting students about these subjects. As students design and program a robot they are exposed to STEM concepts as well as learning how the robot interacts with its environment. They learn about these concepts in a real-world application and are required to apply them over and over again. These hands-on, minds-on activities help students understand how science and technology are useful in their world and make connections to careers they may not have considered.

Engagement: Prior to starting the complete lesson the teacher can hold up Dash and ask the students what they think the robot is. Once they answer “a robot” ask, how do we make a robot work? This will get their minds thinking about what a robot does and how does a robot work.

Lesson Objective-

Today we will:

Learn what a robot is and what it can do.

So We Can:

Define robotics, list different uses for robots, drive dash using the GO application and explain how the tablet communicates with Dash.

Content Vocabulary

1. **Robot-** “a machine capable of carrying out a complex series of actions automatically, especially one programmable

Teacher Demonstration

Estimated Lesson Time: Approx. 20

1. Show students Dash and model how to turn the power on and off.
2. Explain that the tablet is communicating with Dash using Bluetooth. Mention that Dash will not move unless we tell it what to do.
3. Model how to connect Dash using the tablet and the “Go” application.
4. Model the different features of the “Go” application:
 - Joystick

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.

- Speed
- Head Movement
- “Eye” light control
- Sounds
- “Ear” and “Chest” light control have it go on and off.

Student Practice:

- Students will practice turning Dash on and connecting to their device.
- Students will use the joystick to drive dash in all directions.
- Students will navigate through the various tabs in the GO app to get familiar with what they do.

Extension Activity

Teacher can set up paths using blue painters tape on the floor. Create a 2 foot path so students can practice driving using the joystick. The larger the path the easier it will be for the students.

Teacher can also create various paths where they will need to turn left and or right. In addition the paths can be made more narrow if the students are ready for a challenge.

Depending on the level of understanding your students show you can also use one of the listed extension activities to extend their practice for this lesson day.