Assessment

Lesson 2.2 Summative Assessment Questions

1. Which of these is classified as an output?

   A. Switch
   B. LED
   C. Button
   D. All of these are outputs

2. Which of these is an input?

   A. Switch
   B. Mouse
   C. Button
   D. All of these are inputs

3. What is the relationship between switches and buttons?

   A. A switch completes a circuit but a button does not.
   B. A button completes a circuit but a switch does not.
   C. A button is a type of switch that can be pressed to complete a circuit.
   D. A button can be pressed in a game but switches can't.

4. Which of these best describes what occurs with the electrical current flow when switches are turned on and off?
   A. Current flows to the right when the switch is On and flows to the left when the switch is Off.
   B. Current can be controlled to behave like binary and either be 1 = ON or 0 = OFF
   C. Current flow cannot be controlled by turning a switch on or off.
   D. Current runs through a circuit even when a switch it turned off.

5. Which of these statements is FALSE about the control of electricity for buttons and switches?

   A. The button in our circuit needs to be held down to allow electricity to flow.
   B. Switches hold a binary number (1 or 0) depending on the position of the switch (On or Off).
   C. Buttons and switches cannot control the flow of electricity.
   D. Buttons and switches control the flow of electricity when turned on and off.

6. Why do we need two wires per component connected on the breadboard?

   A. To complete the circuit, electricity flows from the GPIO to the component on one wire, and from the component back to the GPIO on the other wire.
   B. Because one wire would be lonely without the other.
   C. In case one breaks we have a spare.
   D. To complete the circuit, electricity flows from the GPIO through both wires to the component.

7. Which of these _best_ describes how the game knows a switch or button is pressed?

   A. The game doesn't know, it is programmed to randomly do stuff every second
   B. The game is programmed to detect the state of the electricity going into the pin connected to the switch or button
   C. The game reads minds and knows what we intended to do
   D. The game is programmed to turn the output devices of switch and button on and off