Introductory "Shop" Lesson

Lesson Date: Whenever <3 Teacher(s): Gabriel, Austen

Duration: 30-60 minutes Age range: ~10-13, but could work for >8 most likely

Lesson Objectives:

1. Understanding basic if/else control flow

2. Creating a simple program given a goal and some inputs.

3. Falls under 6-8.PA.3 in Indiana's Academic standards

Lesson Materials:

- 1. Note cards
- 2. Desk space

Lesson Introduction:

- 1. If/else statements are used to choose things in programs. For example, "IF you have \$5, you can buy a drink. ELSE (or otherwise), you can't buy a drink."
- 2. A shopkeeper has 4 types of items to sell. A customer can buy 1 item at a time by telling the shopkeeper they want the first, second... so on item. Each item has a cost, and the customer's money should be appropriately subtracted when they buy an item. Using if/else statements, create a program to sell items.
- 3. If (10), else if (5), and else (3) have point values. Try to create a shop program with as low a point value as possible.

Lesson Activity:

- 1. Group students into pairs. Groups of three would also be okay.
- 2. Demonstrate constructing an if statement with the notecards. 5 minutes.
- 3. Distribute the notecards, as well as blank notecards. Students can write the name and cost of their items as they'd like.
- 4. Allow students to create the rest of their statements on their own, providing assistance as needed. 30 minutes.

Lesson Conclusion:

- 1. Let students look at other group's shops. Half of the class can "purchase" from others' stores, and then after 5 minutes, allow the other half to shop.
- 2. Tally the students' points.



