

Theme: Programming in Python
Developed by: Matt Coles and Cole Zmurchok
Date: January 28, 2017
Location: Innovation Lab at Science World or other destination
Objectives
<ol style="list-style-type: none"> 1. By the end of the session students should be comfortable writing simple programs involving some of: strings/numbers/conditional statement/loops 2. By the end of the session students should produce a program solving one of the activities/challenge problems
Preparation for students
<p>Students should complete Python Syntax and Tip Calculator here: https://www.codecademy.com/en/tracks/python</p> <p>Although the more codecademy the better! It is recommended that students bring a laptop. One laptop per 3 students would work but the more the better.</p>
Timeline
<ul style="list-style-type: none"> • 4:30-4:35 (5 mins): Short discussion about the usefulness/transferability of programming as related to science/data. • 4:35-5:30 (55 mins): Students who are not familiar with programming will work through the core activities. Students who know some programming can `test out` and proceed directly to the activities/challenge problems • 6:00-7:00 (60 mins): Students who completed the core activities (or at least if/then) can proceed to activities/challenge problems (less experienced students may want to stick to choose your own adventure game). Students who have solved 1 or more of activities can solve more activities. Students are encouraged to play each other's games and try out their friends' programs. <p>Detailed list of activities will be posted here: http://www.math.ubc.ca/~colesmp/FSL/ for all the students (world) to see.</p>
Homework
<p>Each partnership/group of three should make a blog post where they include some of the code they wrote and an explanation of what it does. Other students should then be able to copy/paste the code and play with the program in python. Share your games with each other and play them!</p>

Resources needed (separate into different activities)

- We will use the science world computers. Students are encouraged to bring their own. We'll want at least one computer per three students

Volunteer roles

Feel free to participate or circulate and help with the debugging!

Set up needed

Just the computers and students working in small groups.