

Unit Plan: Introduction of Python

Topic of the Lesson: Names and Functions (Day 1)

Grade and Content: 10th, 11th, and 12th grade, CSP

Learning Objectives

Students will be able to write programs with names and functions.

NYS standards:

9-12.CT.1: Create a simple digital model that makes predictions of outcomes.

9-12.CT.4, 9-12.CT.5, 9-12.CT.6, 9-12.CT.7, 9-12.CT.8, 9-12.CT.9, 9-12.CT.10
Algorithms and Programming

Content-specific vocabulary: variable, variable names, comment

Materials/Resources:

<https://books.trinket.io/pfe/04-functions.html>

Assessments:

Journal/ programming log

Warm-up/ Mini lesson:

Students will read the slides with the definitions (#2 – 4)

Turn and Talk (#5): What is the “Syntax Error” for the name in each statement?

Conclusion(#6): words reserved by Python

Activity / Sequence of Lesson:

1. (#7 – 9) Students will read the slides and learn about the operators. Then they will attempt the “You try it”.
2. Group presentation for predicting the outcomes. Teacher may model the correct answer.
3. (#10 – 14) Students will read the slides and learn about how to get user input. Then, they will attempt the “You try it”.
4. Group presentation for the programs. Feedback and comment from the class and the teacher.

Summary / Next Steps / Exit Slip:

(#15) Challenge question

Write a program which prompts the user for a Celsius temperature, convert the temperature to Fahrenheit, and print out the converted temperature.