



# CodeHS

## Intro Python (Rainforest) CSTA K-12 Computer Science Standards Alignment Overview

The CodeHS Introduction to Computer Science in Python curriculum teaches the foundations of computer science and basic programming, with an emphasis on helping students develop logical thinking and problem solving skills. This document is an overview of how the Introduction to Computer Science in Python course aligns with the CSTA K-12 Computer Science Standards.

### CSTA K-12 Computer Science Standards Concepts

#### Algorithms & Programming

Algorithms and programming are the central focus of this course. Students learn the core principles of developing their own algorithms and implementing them in the Python programming language. Algorithms, variables, control, modularity, and program development are all taught in this course.

- Standards: 2-AP-10, 2-AP-11, 2-AP-12, 2-AP-13, 2-AP-14, 2-AP-18, 3A-AP-12, 3A-AP-13, 3A-AP-14, 3A-AP-15, 3A-AP-16, 3A-AP-17, 3B-AP-08, 3B-AP-12, 3B-AP-14, 3B-AP-15

#### Computing Systems

Troubleshooting computing systems is a core concept of the Introductory to Computer Science in Python course. Computing systems might not work as expected because of problems in the software. Students are expected to identify problems in their programs and fix them. Errors are opportunities to learn from mistakes.

#### Data & Analysis

Storing, transforming, and visualizing data are all taught as part of the Introduction to Computer Science in Python course. Students learn to use various types of data structures to store data, as well as how to select the proper data structure to model a problem. Students have the option to write programs that manipulate data, find elements in data structures, remove elements from data structures, and even guess who wrote various texts in the Supplemental Units of the course.

#### Impacts of Computing

Computing has had significant impacts in several fields. In this course, students learn first hand the impacts computing has on digital drawings, gaming, and interpreting large text passages.

Students also learn the ethical considerations of sharing their code with others, and searching online for solutions to CodeHS exercises.