



Computer Science Principles - Level 12

Computer Science Principles covers many topics including the Internet, Big Data and Privacy, and Programming and Algorithms. The curriculum is flexible to be taught as an AP or non-AP course.

- Audience: High school students, grades 9 - 12
- Curriculum length: 32 Hours
- Prior knowledge: None! Just bring your curiosity

CSP UNIT 7 - PARAMETERS, RETURN AND LIBRARIES

CSP UNIT 8 - CREATE PT PREP

CSP UNIT 9 - DATA

CSP UNIT 10 - CYBER SECURITY AND GLOBAL IMPACTS

UNIT 7- PARAMETERS, RETURN AND LIBRARIES

Lesson 1: Parameters and Return Explore
Lesson 2: Parameters and Return Investigate
Lesson 3: Parameters and Return Practice
Lesson 4: Parameters and Return Make
Lesson 5: Libraries Explore
Lesson 6: Libraries Investigate
Lesson 7: Libraries Practice

Project

Lesson 8: Make a Library Part 1
Lesson 9: Make a Library Part 2
Lesson 10: Make a Library Part 3

UNIT 8- CREATE PT PREP

Lesson 1: Create PT -Review the Task
Lesson 2: Create PT -Make a Plan
Lesson 3: Create PT – Complete the Task

UNIT 9 – DATA

Lesson 1: Learning From Data
Lesson 2: Exploring one column
Lesson 3: Filtering and Cleaning Data
Lesson 4: Exploring Two Columns
Lesson 5: Big Data, Crowdsourcing, and Machine Language
Lesson 6: Machine Learning and Bias

Project

Lesson 7: Tell a Data Story Part 1
Lesson 8: Tell a Data story part 2



UNIT 10- CYBER SECURITY AND GLOBAL IMPACTS

Lesson 1: Project - Innovation and simulation Part 1

Lesson 2: Project - Innovation and simulation Part 2

Lesson 3: Data Policies and Privacy

Lesson 4: The Value of Privacy

Lesson 5: Project Innovation simulation Part 3

Lesson 6: Security Risks Part 1

Lesson 7: Security Risks Part 2

Lesson 8: Project- Innovation Simulation Part 4

Lesson 9: Protecting Data Part 1

Lesson 10: Protecting Data Part 2

Lesson 11: Project- Innovation Simulation Part 5

Lesson 12: Project- Innovation Simulation Part 6

Lesson 13: Project- Innovation Simulation Part 7