2020 EDITION

Idaho Computer Science Education Guide

Prepared by CodeHS
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Why Computer Science?

In the 21st century, coding is a foundational skill, just like reading and writing. Everyone should get the chance to learn how to code—it's a skill that provides limitless creative opportunities to students and future generations.

With a great curriculum, resources, and support, school districts across the country can implement high-quality computer science programs. At CodeHS, our goal is to make computer science education fun and accessible to all!

Idaho CS Education Overview

In February 2017, Idaho adopted K-12 computer science standards. Based on the Idaho State Legislature House Bill 648 signed in 2018, Idaho school districts are required to make one or more computer science courses available to all high school students in 2020, and all middle and elementary schools offering one by 2022.

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Standards Alignment

[Idaho's Computer Science Standards](#) build upon the K-12 Computer Science Framework, which CodeHS courses align to. View the mapped frameworks below to see the associated CodeHS lessons per grade level!

[ID 6-8 Framework](#) **[ID 9-10 Framework](#)** **[ID 11-12 Framework](#)**

Idaho 6-12 CS Curriculum Pathway

Our recommended 6-12 curriculum pathway provides a robust computer science pathway that teaches students 5 programming languages over the course of middle school and high school.

6th	7th	8th	9th	10th	11th	12th
Karel the Dog (JavaScript)						
Tracy the Turtle (Python)						
Introduction to the Internet						
World of Computing						
Cybersecurity (MS - 1 semester)						
	Web Design (MS)					
	Computing Ideas					
	Creative Computing (MS/HS Flavors - 1 semester)					
			Intro to VR (Mini Course Component)			
			Introduction to Computer Science in JavaScript			
			Web Design (HS)			
			Introduction to Computer Science in Python			
				Cybersecurity		
				AP® Computer Science Principles		
					Mobile Apps	
					AP® Computer Science A	

Course Overview

Intro to JavaScript with Karel
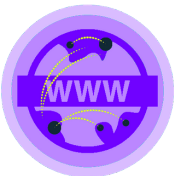
Grade Levels: 6-7

Students learn the basics of programming by giving commands to a computer just like you give commands to a dog. Students will learn JavaScript commands, functions, and control structures by solving puzzles and writing creative programs for Karel to follow.

Intro to Python with Tracy

Grade Levels: 6-7

The CodeHS Intro to Python with Tracy the Turtle course teaches students the basics of programming in the Python language. Students will learn Python commands, functions, and control structures by solving puzzles and writing creative programs for Tracy to follow.

Introduction to the Internet

Grade Levels: 6-7

Introduction to the Internet is a first computer science course introducing the basics of designing a web page and how information and images are represented with computers. Students will create a portfolio on the web of projects they build throughout the course.

World of Computing

Grade Levels: 6-7

The World of Computing course allows students to explore what a computer is and how technology has affected their lives. Students will learn to code using blocks to drag and drop, but they can switch between blocks and text as desired.

Cybersecurity (MS)

Grade Levels: 6-8

As our world becomes increasingly dependent on technology, cybersecurity is a topic of growing importance. This course prepares students with crucial skills to be responsible citizens in a digital future.

Web Design (MS)

Grade Levels: 7-8

This is a project-based course that teaches students how to build their own web pages. Students will learn the languages HTML and CSS, and will create their own live homepages to serve as portfolios of their creations.

Creative Computing
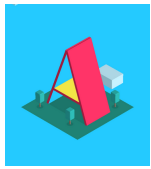
Grade Levels: 7-10

In this course, students will learn to code using blocks to drag and drop, but they can switch between blocks and text as desired. Students will create a portfolio on the web of projects they build throughout the course.

Computing Ideas

Grade Levels: 7-9

Creative Computing gives students the opportunity to explore and create in several languages and develop an interest in computer science that will foster further endeavors in the field.

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Introduction to Virtual Reality

Grade Levels: 9-12

Introduce students to the basics of building virtual reality worlds using HTML and the A-Frame JavaScript Library. Through this course, students will build their own virtual reality worlds that are compatible with VR devices, including smartphone VR headsets!

Intro to Computer Science in JavaScript

Grade Levels: 9-12

Students learn the foundations of computer science and basic programming in JavaScript, with an emphasis on helping students develop logical thinking and problem solving skills.

Web Design (HS)

Grade Levels: 9-12

A project-based course that teaches students how to build their own web pages, students will learn the languages HTML and CSS, and will create their own live homepages to serve as portfolios of their creations.

Intro to Computer Science in Python

Grade Levels: 9-12

Students will learn the fundamentals of computer programming as well as some advanced features of the Python language to build simple console-based games. This course is equivalent to a semester-long introductory Python course at the college level.

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Cybersecurity (HS)

Grade Levels: 10-12

Students will learn foundational cybersecurity topics including networking fundamentals, software security, and basics of cryptography.

AP Computer Science Principles in JavaScript or Python

Grade Levels: 10-12

AP Computer Science Principles introduces students to the foundational concepts of computer science and challenges them to explore how computing and technology can impact the world. Both the JavaScript and Python versions are endorsed by the College Board and have been updated for the 2020-2021 school year.

Mobile Apps

Grade Levels: 11-12

As an online blended high school course, students will design and build applications to run on their own smartphones and will use the latest tools and technologies available for mobile app development. Students will learn about the fundamentals of building mobile apps with React Native, mobile app structure, using the various components for user interaction, and the basics of custom functionality.

AP Computer Science A

Grade Levels: 11-12

The CodeHS AP® CSA course is a year-long course designed to help students master the basics of Java and equip them to successfully pass the AP® Computer Science A Exam at the end of the school year. This course is endorsed by the College Board.

Explore all free CS courses in the CodeHS Course Catalog at
codehs.com/course/catalog

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Professional Development

CodeHS' online and in-person professional development helps train teachers to teach excellent computer science courses -- no programming experience required.

Learn more at codehs.com/info/pd

Online PD Courses

The online PD courses are made up of a series of learning modules that cover both the basics of programming and the pedagogy of teaching programming in a blended classroom. Teachers can complete it on own time, during summer, school professional development days, or school holidays.

- Teaching Intro to Computer Science
- Teaching AP Computer Science Principles
- Teaching AP Computer Science A
- Teaching Computing Ideas
- Teaching Intro to Python
- Teaching Web Design
- Teaching Intro to Cybersecurity
- Level 2 Professional Development for CS Teachers

In-Person PD Workshops

The in-person professional development workshops are for districts looking to train multiple computer science teachers. Workshops can be 1 or 2 days, and cover a variety of topics including leveraging blended tools in computer science classes, subject specific topics, how to customize your class using the CodeHS platform, and more.

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CodeHS Teacher Love

> ❝ I just wanted to tell you THANK YOU! I'm not sure how I would have survived the online world of teaching my computer science class without your Pro tools. We did our class today with Zoom, and when students were stuck, it was super easy for me to just look at their code
>
> - Judy Amster, Teacher at Bishop Kelly High School in Boise, Idaho

Idaho CS Facts

Only 446 exams were taken in AP Computer Science by high school students in Idaho in 2019 (139 took AP CSA and 307 took AP CSP)

The average salary for a computing occupation in ID is $71,947, which is significantly higher than the average salary in the state of $43,480

Only 16 schools in ID offered an AP Computer Science course in 2018-2019

Sources: College Board, Bureau of Labor Statistics, Code.org

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Bring a Full Computer Science Program to Your District

Contact us at hello@codehs.com.

✉ **Contact Us**

We'd be happy to chat more!

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