Computer Science Discoveries

Getting Started

Basic Course Information

Computer Science Discoveries is an introductory, classroom-based course appropriate for 6 - 10th grade students. It's designed with the new-to-CS student and teacher in mind and can be taught as a semester or year long course (3-5 hours per week of instruction for 9+ weeks).

The course takes a wide lens on computer science by covering topics such as programming, physical computing, web development, design, and data. The course inspires students as they build their own websites, apps, games, and physical computing devices. Our curriculum is available at no cost for anyone, anywhere in the world.

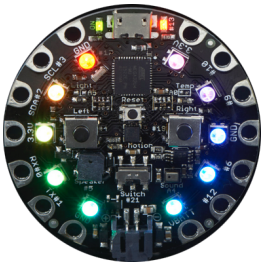
Options for Implementation

CS Discoveries consists of two semesters that build on each other. Schools can choose to teach a single semester, two sequential semesters, or a single, year-long course. For schools with less than a semester, we always suggest starting with the Problem Solving unit. Afterwards, the class can move on to Web Development or Interactive Animations and Games. The second chapter of each unit can be skipped if pressed for time. Read more about our implementation options.

What You'll Need

The course requires that students have access to computers with a modern web browser. At this time, our courses are not optimized for tablets or mobile devices. For more details, check out Code.org's technology requirements.

In addition to computer access, you'll need typical classroom supplies, such as pencils, paper, scissors and glue, as well as an ability to print lesson handouts for students. A few activities may require some specific supplies such as a deck of cards or aluminum foil. You can see a full list of resources needed for each lesson at https://curriculum.code.org/csd/resources/.



Adafruit's Circuit Playground Boards and Micro USB cables are required for our physical computing unit. The curriculum is designed for a ratio of 2 students to 1 board & 1 usb cable. For more details, check out this page about the Circuit Playground.

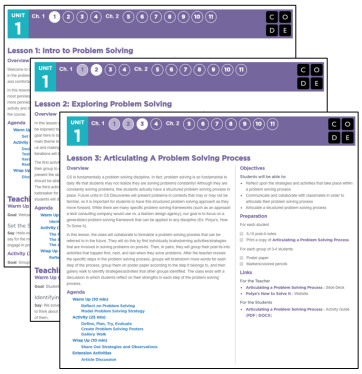
Learning More

For more in-depth information about the CS Discoveries curriculum, go to http://curriculum.code.org/csd/. This site includes unit overviews, detailed lesson plans, student handouts, standards alignment, and links to resources such as online code documentation. It also includes the CS Discoveries Curriculum Guide, which guides teachers though everything they need to know about the course, from our course content and pedagogical approach to specific instructions for using Code.org tools.

Getting Started

To get started with the curriculum, you'll need to create and verify a teacher account. Go to https://studio.code.org/users/sign_up to set up your Code.org teacher account. This will give you access to lesson plans, activity guides, and all online activities that your students will see. To access answer keys and other restricted materials, go to https://code.org/verified. The verification process may take up to seven business days.

Running a Code.org Lesson



CS Discoveries is written for the new-to-CS teacher in mind, meaning that you do not need to be an expert in computer science to run the lesson. Teachers do, however, play an active role as the lead learner in the course, establishing a collaborative and safe learning culture, facilitating sensemaking discussions, and helping students to overcome challenges in the activities through modelling effective learning strategies.

Each lesson plan includes teaching tips, discussion goals, and extra information on content to help you fulfill your role in the classroom. The most valuable preparation for the new-to-CS teacher, though, may be going through the course activities yourself to better understand and empathize with the challenges your students face when engaging with the new material.

To avoid technical problems, make sure that you can play the course videos and access published Web Lab, Game Lab, and App Lab projects on student devices. You may need to check with your IT department to allow these sites though you school's firewall. For a full list of websites to unblock, visit the Code.org IT Requirements.

Where to go for help

The Code.org forum is an active online community where teachers can ask questions, find resources, and collaborate. Verified teachers have access to teacher-only boards where they can discuss answers and share restricted resources. The forum is a great place to find supplementary materials that teachers have created to suit their particular classrooms. https://forum.code.org

To read help articles or get support directly from Code.org staff, go to support.code.org. You can search for answers to frequently asked questions, report bugs, and give other feedback on the curriculum and tools.

Every 21st century student should have the opportunity to learn computer science. The basics of computer science help nurture creativity and problem-solving skills, preparing students for a future in any field or career.

Code.org is a 501(c)3 non-profit dedicated to expanding participation in computer science education by making it available in more schools and increasing participation by women and underrepresented students of color. The Code.org vision is that every student in every school should have the opportunity to learn computer programming.