Professional Learning Programs Overview CS Principles and CS Discoveries



Arizona Science Center

The Code.org Professional Learning Program

Whether you are new to teaching computer science (CS) or have experience teaching other CS courses, the Code.org Professional Learning Program is designed to promote growth by providing space for you to become comfortable with curricular materials, CS content, and pedagogy. The program supports teachers with diverse teaching backgrounds as they prepare to teach either of the following courses:

- Computer Science Discoveries is an introductory computer science course that empowers students to create authentic
 artifacts and engage with computer science as a medium for creativity, communication, problem solving, and fun. The
 curriculum is recommended for middle and high school students (grades 6-10), and can be taught either as a semester
 or full-year offering.
- Computer Science Principles (can be taught as an AP° course) is a higher level introductory course for 9th-12th grade students that introduces students to the foundational concepts of computer science while challenging them to explore how computing and technology can impact the world. No computer science background is necessary for students or teachers.

Our curriculum supports teachers new to the discipline with a complete set of lesson plans that include inquiry-based activities, videos, assessment support, and educational tools.





Professional Learning Program features:

- One cohesive set of resources: Our professional learning and curriculum flow seamlessly together, empowering
 teachers to deliver the course with confidence. In-person workshops combine with online tools to provide participants
 with a broad selection of resources to help them plan ahead for implementing the course in their classrooms, while also
 collaborating with other educators.
- Teaching and learning in context: Participants will engage with the curriculum both as instructors and as learners. By
 experiencing the course content as an active learner, participants will gain important, concrete insight into the
 perspective their students will have during the academic year. By interacting with curriculum content as instructors,
 participants will learn how to plan and deliver lessons.
- A collaborative, participant-centric approach: Teachers and facilitators will have the opportunity to share their
 expertise from the field and collaborate on strategies to bring to the CS Principles and CS Discoveries classrooms,
 giving participants a chance to learn from everyone in the room. Facilitators model pedagogical strategies and
 participants share their own approaches by planning and delivering lessons.

Program Commitments:

The Code.org Professional Learning Program has both in-person and online supports designed to prepare teachers before and during their first year teaching CS Principles or CS Discoveries.

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Timeline:

Summer Workshop	Ongoing Support
Summer	School Year (September - June)
 5-day, in-person session in your region (travel may be required) 	 4 in-person sessions in your region (usually on Saturdays) Continued professional development and resources

Summer Workshop:

The Professional Learning Program kicks off with a 5-day workshop hosted by Arizona Science Center. Participants explore the curriculum and learning tools, discuss classroom management and teaching strategies, and build a community with other CS educators. With a focus on a customized experience, participants will develop skills while working in small groups to deepen their understanding of the materials.

Ongoing Support:

Participants attend local, follow up workshops throughout the academic year. These meetings are hosted by Arizona Science Center and focus on the essential elements of the course, such as teaching new content, keeping the classroom environment equitable and engaging, and continue to build pedagogical strategies. Optional meet-up gatherings are scheduled twice a year to provide opportunities to continue building community and collaborating in a more relaxed setting.

In addition, all teachers have access to the Code.org forum, an online professional learning community that offers continued support with tools and content, introduces new and helpful resources for teaching the course, and lets teachers continue to explore the curriculum.



"I do not have a computer science background. I would change nothing about the training. It was an incredible experience, and I felt valued and respected."



"They make it so that you can understand the material and they make it so you want to come back!"

For additional information, including course overviews, FAQs, and more, visit:

- Arizona Science Center: https://www.azscience.org/educators/codeorg-regional-partner/
- Professional Learning Program: https://code.org/professional-learning
- **CS Discoveries:** https://code.org/csd
- CS Principles: https://code.org/csp

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