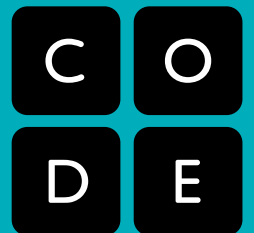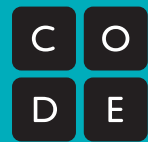# Welcome to our Family!

Code.org Professional Learning Program

2016-2017

Exploring Computer Science

CODE

Dear Educator,

Congratulations! You are now part of Code.org's family of teachers working across the United States to bring computer science courses to our public schools. As the founder of a young and relatively small organization, I've been humbled by the passion of educators such as yourself, taking the first step to bring computer science to your students and to open a world of opportunity for them.

Over the next 15 months, you'll participate in Code.org's Professional Learning Program, supporting version 5 of the Exploring Computer Science (ECS) curriculum. We have chosen to offer ECS to schools as our introductory college preparatory computer science course designed to broaden participation in computing. Through the ECS curriculum and your professional learning, you and your colleagues will engage in an inquiry-based approach to teaching and learning essential computer science concepts. ECS will open a door for your students to explore what computer science is and give them a positive first experience with computer science.

We look forward to working with you toward successful completion of our Professional Learning Program. It is important that you read and understand the Code.org welcome kit as it gives key details about our program that you can reference as you go through the year-long program.

If at any point throughout your Professional Learning Program you have a question, please let us know by emailing **teacher@code.org**.

Thank you for joining the movement,

Hadi Partovi
Co-founder, CEO
Code.org

Professional Learning Program Overview

The Code.org Professional Learning Program

The Code.org Professional Learning Program supports teachers with diverse teaching backgrounds. Whether you are new to teaching computer science or not, the program is designed to promote growth in your teaching practice and provide space for teachers to become comfortable with the curricular materials and associated teaching strategies.

Program features that open the door for growth:

- **Teaching and Learning in Context:** Our professional learning model enables participants to engage with the curriculum both as teachers and as learners. Through experiencing curriculum content as an active learner, participants gain important insight into the experiences their students will have during the academic year. By interacting with curriculum content as instructors, participants gain essential experience planning and delivering lessons.

- **A collaborative, participant-centric approach:** Workshops and activities encourage participants and facilitators to share their expertise from the field and collaborate on classroom strategies. Our program provides an opportunity to learn from everyone in the room. Facilitators model behavior and pedagogical approaches, and participants share their own approaches by planning and delivering lessons.

ECS curriculum

Exploring Computer Science is a year-long course consisting of 6 units, approximately 6 weeks each. The course was developed around a framework of both computer science content and computational practice. Assignments and instruction are contextualized to be socially relevant and meaningful for diverse students.

To see the **Exploring Computer Science Curriculum**, visit: **code.org/ecs**. (Note: You will receive a printed version during Phase 2.)

Program commitments

Phase 1: Online Introduction	Phase 2: Summer Study	Phase 3: Academic Year Development	Optional: Wrap up and transition to CS Discoveries
May 2016	Summer 2016	September 2016 - May 2017	Summer 2017
• 2 hours online, self-paced	• 5 days, in-person (30 hours)	• 4 one-day, in-person sessions (24 hours total) • 20 hours online, self-paced	• 3 days, in-person (18 hours total)

Overview of program phases

The Code.org ECS Professional Learning Program is broken into four phases. These phases are designed to support teachers throughout their first year of teaching ECS.

Phase 1: Online introduction

Overview: The first phase of professional learning is a two-hour online introduction that focuses on providing a foundational knowledge of the ECS course resources. It creates a space for participants to become familiar with the curriculum and the online platform.

Phase 2: Summer study

Overview: The second phase of professional learning is a 5-day in-person workshop, the primary capacity building experience for teachers before their first year of instruction. Participants will explore curriculum, tools, classroom management, and teaching strategies. Spending practical time working with the curriculum, you will develop an understanding of how to effectively use the materials and pedagogical strategies that are part of any strong computer science classroom.

Phase 3: Academic year development

Overview: The third phase of professional learning is composed of blended quarterly in-person meetings and self-paced online modules. These meetings and modules are ongoing throughout the academic year.

- **In-person workshops:** These quarterly meetings will continue to build pedagogical strategies and explore the essential elements of this course. You will participate in activities such as teaching new content and keeping the classroom environment equitable and engaging for all students.

- **Online modules:** Online modules will introduce forums focused on building a collaborative professional online learning community — an important teacher tool during the first year teaching this course.

Optional: Wrap-up and transition to CS Discoveries

Overview: You'll reflect on your first year teaching ECS, and plan for the second year. Starting in fall 2017, teachers will have the option to teach CS Discoveries, an introductory course for 7th-9th grade students created by Code.org that brings together the power of the Code.org teaching and learning tools with the educational philosophies of ECS. Teachers will have a chance to learn about this new course and how it can fit into their schools.

How do I promote the course to students?

Recruiting a diverse group of students is important to the success of the Exploring Computer Science course. Visit our online marketing kit (**code.org/marketingkit**) for ideas on how to promote your school's new computer science program!

Here are a few quick ideas

- Host an information session during lunch or after school and actively recruit students to attend.

- Show promotional videos during school-wide assemblies. Find Code.org videos online at **http://bit.ly/1Wq70Uz**.
  Here are some favorites:

  – Computer science can help in every field — whether it's medicine, law, or business. Inspire *all* students about how computer science is changing *everything:* **https://youtu.be/xJqSu1IbcHg**

  – The majority of schools don't teach computer science. Learn why yours should: **https://youtu.be/nKIu9yen5nc**

  – Inspire a girl, and let her know how she can change the world: **https://youtu.be/mFPg96gdPkc**

Frequently asked questions

What supplies do I need to teach the course?	Visit **code.org/ecs-supplies** for items needed to effectively teach **Exploring Computer Science**.
What are the minimum tech requirements?	White-list Code.org for access. Computers must have online connectivity at a minimum of 10MB/sec and modern browsers (IE11+, or Firefox, Chrome, Safari, Mobile Safari, Android tablets).
Where can I find general information about Code.org's Exploring Computer Science program?	Visit **code.org/educate/professional-learning/exploring-cs** for information about the Code.org **ECS Professional Learning Program**.
What ECS version 5 curriculum guides and resources are available to me?	Curriculum overview: **code.org/ecs-at-a-glance** Full curriculum (version 5): **code.org/ecs** *(Note: You will receive a printed copy at the Phase 2 in-person workshop.)*
How does ECS align to standards?	Visit **code.org/ecs-alignment** for resources on ECS mapping to curricular standards (including Common Core, ISTE, CSTA, and more).
What are other Code.org opportunities for teachers that I can tell my colleagues about?	Visit **code.org/educate** for Code.org K-12 curriculum and professional learning program information.

Gender & racial equity: A chance to level the playing field

Exposure to CS leads to some of the best-paying jobs in the world. But 75% of our population is underrepresented.

Moving the needle on diversity in tech

45%

Female students

48%

Underrepresented minorities
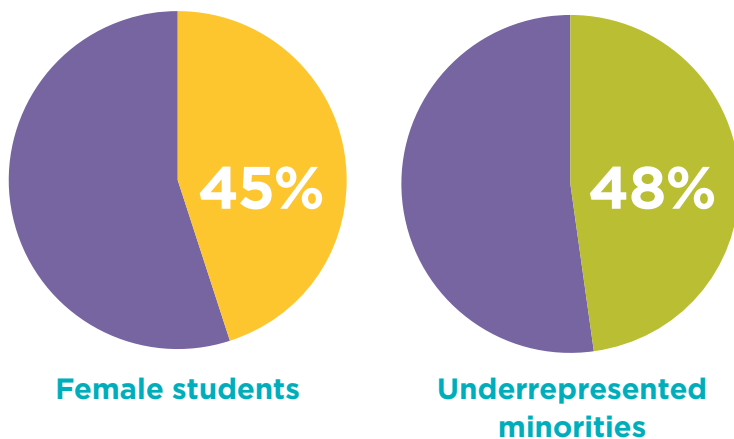
Over **1M girls** and over **1M African American + Hispanic** students enrolled in **Code Studio** courses

C O D E
STUDIO

Source: *Code.org*

1,000,000 more jobs than students by 2020

Computer science is a top-paying college degree and computer programming jobs are growing at 2X the national average. Computer science is changing *every* field.

$500 billion opportunity

1.4 million computing jobs

400,000 computer science students

Source: *Code.org*

| 1,400,000 |
| 1,200,000 |
| 1,000,000 |
| 800,000 |
| 600,000 |
| 400,000 |
| 200,000 |

2011 2012 2013 2014 2015 2016 2017 2018 2019 2020