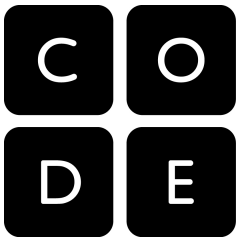


Welcome to our Family!

Code.org Professional Development
Computer Science in Algebra

Powered by Bootstrap

2015-2016

Code.org
1301 5th Ave, Suite 1225
Seattle, WA 98101
pd@code.org

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. We look forward to working with you toward successful completion of our Computer Science in Algebra program, offering professional development and curriculum powered by Bootstrap.

Code.org's Computer Science in Algebra (CS in Algebra) curriculum teaches algebraic and geometric concepts through computer programming. The twenty lessons focus on concepts such as order of operations, the Cartesian plane, function composition and definition, and solving word problems— all within the context of video game design. By shifting classwork from abstract pencil-and-paper problems to a series of relevant programming problems, CS in Algebra demonstrates how algebra applies in the real world, using an exciting, hands-on approach for students to create something cool.

It is important that you read and understand the Code.org Welcome Kit contents as it gives you some key details about our program and policies that you can reference as you go through the roughly 12 months of professional development.

Please browse our website code.org/educate and review details specific to your workshop location at code.org/pd. If at any point throughout your professional development experience you have a question, please let us know by emailing pd@code.org.

Sincerely,

Hadi Partovi
Co-founder, CEO
Code.org

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.

Professional Development Overview

Code.org professional development is a year-long, multi-phase program designed to provide educators with the opportunity to increase content knowledge, skills, and pedagogy related to inquiry, equity, and specific Code.org course instruction. The professional development model is structured to empower teachers by focusing on proper preparation, in-depth learning, feedback, reflection, and continuing education. Teachers are required to successfully complete course-specific Code.org professional development for each Code.org course they will instruct.

For a full rundown of the Code.org PD philosophy, visit code.org/educate/professional-development-philosophy.

Program Commitments

Phase 1: **Online Introduction**

- 2-hour online coursework

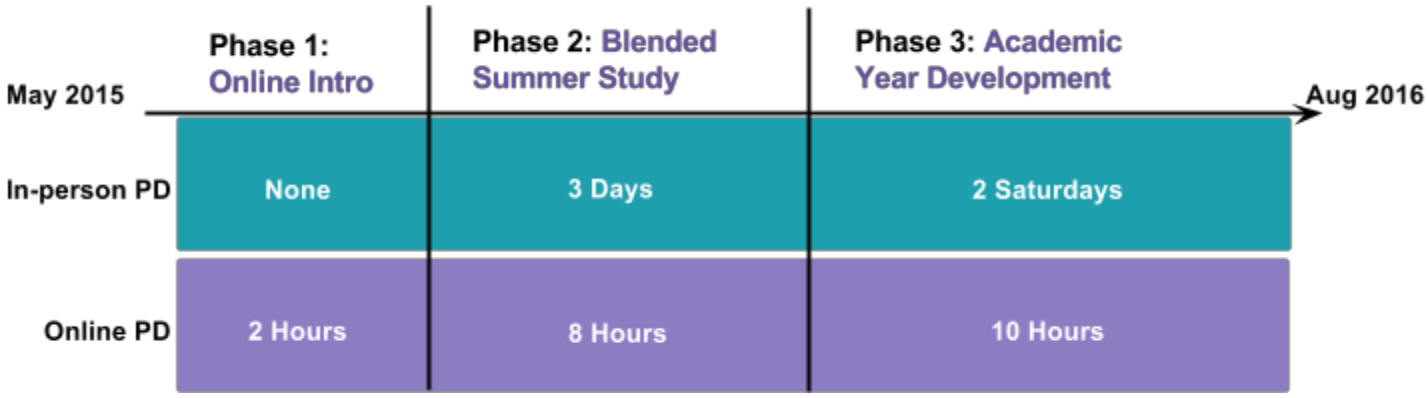
Phase 2: **Blended Summer Study**

- 3 days (21 hours) in-person
- 8 hours online coursework

Phase 3: **Academic Year Development**

- 2 days (14 hours) in-person
- 10 hours online coursework

Program Commitments Timeline:



Overview of PD Phases

The Code.org CS in Algebra professional development is broken into three phases. These phases are designed to support Algebra teachers throughout their first year of implementing the CS in Algebra curriculum.

Phase 1: Online Introduction

May 2015

Overview: The first phase of professional development is a two-hour online introduction that focuses on providing a foundational knowledge of the Code.org program and CS in Algebra course resources. It creates a space for participants to become familiar with the curriculum, the platform, and the tools that will be used in the course.

Takeaways:

- I have created my **teacher account**.
- I know what CS in Algebra is
- I am **familiar with the Code.org tools**.
- I am **excited** to go to Phase 2!

Phase 2: Blended Summer Study

June 2015 – August 2015

Overview: The second phase of professional development is a blended in-person and follow-up online experience.

- ***In-person workshop***: This 3-day workshop is the primary capacity building experience for teachers prior to their first year of instruction. Focusing on quality math and computer science pedagogy, teachers will gain practical experience teaching content through inquiry and equity. Participants will address common misconceptions about the intersection of math and computer science, interact hands-on with the core concepts of CS is Algebra, and role-play lessons using the Teacher/Learner/Observer Model. The Code.org PD workshop cultivates a professional learning community that will extend throughout the Code.org partnership.
- ***Online follow-up***: This 8-hour online experience provides space for teachers to dive deeper into the curriculum and experience tools that students will use in the class.

Takeaways:

- I know where to find **resources and supports** I need to teach this class.
- I am part of a **professional learning community** of teachers.
- I know how to use the **tools** in order to figure out what I don't already know how to do.
- I am **learning** how to teach CS in a way that **integrates with Algebra**.
- I have thought about and discussed the **things to look out for** in the CS classroom (equity issues, etc).
- I have thought about and discussed **how the Code.org materials will work in the classroom** and am ready for the first week.

Phase 3: Academic Year Development

September 2015 – June 2016

Overview: The third phase of professional development is composed of blended in-person meetings and online activities.

- ***In-person workshops***: These one-day workshops will continue to build pedagogical strategies and help teachers prepare for the implementation of the modules. Teachers will review best practices for integrating modeling and simulation into Algebra classes.
- ***Job-embedded online activities***: These online activities allow you to practice with the concepts that your students will be learning while picking up pedagogical tips and best practices along the way.

Takeaways:

- My **professional learning community** is a good place for me to turn for support, both in and out of PD.
- I have a better idea of the curriculum, because I've had a chance to **explore it more deeply** with my professional learning community.
- I have even more ideas about leading an **engaging and equitable** classroom.

Computer Science in Algebra Curriculum

The CS in Algebra curriculum consists of interdisciplinary modules that combine computer science concepts with Algebra, with a focus on designing Algebraic functions to solve word problems. These lesson sets are meant to be interwoven into pre-existing algebra courses and will not add substantial instructional time. Each lesson is designed to be implemented in a standard 45-50 minute class period. These lessons are topical and should be used within the natural context of the class. All lessons are aligned with common state standards in math and the CSTA computer science standards.

Download the CS in Algebra curriculum and other resources here: code.org/curriculum/algebra

Code.org Attendance Policy

Districts are required to select teachers who will be teaching the course in the Fall, that are able to attend all days of professional development (12 months), and teachers must commit to attending all days of professional development (PD) when joining a Code.org cohort.

1. Teachers will only receive stipends for the hours that they attend the professional development.
2. Arriving/leaving over 30 minutes late/early will count as a full day absence if not approved by Code.org prior to the workshop.
3. Teacher must complete phase 1 PD prior to the start of phase 2 PD to continue to be part of the program and will not receive his/her phase 2 PD stipend until phase 1 PD is completed.
4. Teacher must attend the full 5 days of phase 2 PD to continue to be part of the program.
5. Teacher must be teaching computer science to a minimum of 1 section of students when the school year begins to continue to receive their stipend.
6. Teacher must attend all 4 days of Saturday in-person workshops (these happen during the school year).

If you have a schedule conflict email pd@code.org and notify your district contact as soon as possible.

Exceptions to this policy include districts where Saturday workshop participation is voluntary per union regulations.

Communications

Who will PD e-mails come from?

You can expect emails from pd@code.org providing workshop and online activity information, surveys to help us improve PD as well as monthly newsletters.

Who do I contact with questions?

For any questions please contact pd@code.org. You can expect a response within 48 hours during our business hours (Monday- Friday 9am - 5pm PST).

Frequently Asked Questions

Will Code.org reimburse me for parking fees?	No, Code.org does not cover parking expenses and encourages participants to use public transit options in their city.
I'm not an Algebra teacher. Can I teach this course?	No. The concepts in this course align with Algebra concepts. It will be difficult for a teacher who has not taught Algebra to get through this PD.
What if I am no longer implementing the course in the Fall, can I still attend PD?	Our general rule is you will not go through PD with a stipend unless you are teaching, but please contact your district to discuss further.
What supplies do I need to teach the course?	General Ed classroom with 1:1 media carts OR Computer lab with 1:1 computers (2:1 can be used for pair programming) We work hard to build an environment that is supported by all modern web browsers on desktops and mobile devices, but you'll have the most success with an up-to-date browser (IE9+, Firefox, Chrome, Safari). Student workbooks, ~20 pages printed by teacher
What are the tech requirements for this course?	Visit these links to make sure your device and browser can support the program requirements: http://code.org/educate/it https://support.code.org/hc/en-us/articles/202591743

Helpful Links

CS in Algebra Curriculum Overview: http://code.org/curriculum/docs/algebra/overview
CS in Algebra Curriculum: http://code.org/curriculum/docs/algebra
CS in Algebra Standards Alignment: http://code.org/curriculum/docs/algebra/standards
CS in Algebra Curriculum Framework: http://code.org/curriculum/docs/algebra/framework

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Do you know a K-5 teacher?

Invite them to attend Code.org's free Professional Development for elementary school teachers!

High-quality workshops, free of charge

Code.org is hosting no-cost, one-day workshops for K-5 educators interested in teaching computer science. Workshops will cover courses one, two, and three, and offer supplies needed to teach the courses.

For details, visit Code.org/K5 or send them this one-pager.