# **Lesson Overview**

This lesson plan provides a general outline and tips to facilitate the [Hour of Code](http://code.org/learn) in an after-school setting.

# **Lesson Summary**

**Duration: 45-60 mins.**

Getting started: (2-5 mins.)

* [Introduce the activity](#h.tq350l4u91fs)
* [Direct participants to the activity](#h.blu9h94geswi)

Activity: (20-40 mins.)

* [Facilitate and support participants to complete the tutorial](#h.o0mqteea1jy)

Wrap-up: (5-10 mins.)

* [Reflection and celebration](#h.bdwb3xjfdmf7)

Extended learning options: (2-5 mins)

* [Optional](#h.d0d3mi7ibx51)

# **Audience**

This lesson plan is intended for use with youth of any age who are interested in computer science.

## Learning Objectives

By participating in this lesson, participants will:

* [Insert learning objectives based on chosen tutorial.]

# **Facilitation Guide**

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## Materials, Resources and Preparation

* Review the Hour of Code [After-School Educator Guide](https://hourofcode.com/us/how-to/afterschool) and [Best Practices from Successful Educators](https://docs.google.com/a/code.org/presentation/d/1Amy-wxqNa9JsiDCN-1i1X5tmNfBTWi9ypz-3b00v8TA/edit?usp=sharing) to plan your Hour of Code event.
* [Register your Hour of Code](http://hourofcode.com) event and [find a local software engineer to volunteer at your event](https://code.org/volunteer/).
* Review the [unplugged lessons and online tutorials](https://hourofcode.com/us/learn) and choose one to run.
* If you’re running an online tutorial, be sure to test it with the technology you plan to use and troubleshoot anything in advance.
* [Print certificates](http://code.org/certificates) to hand out at the end.
* Youth engagement: 15-25 youth per facilitator, elementary or middle school, no prior skill necessary.

## Getting Started (2-5 mins)

### Introduce the activity (2-5 minutes)

Kick off your Hour of Code by inspiring participants and discussing how computer science impacts every part of our lives.

Show one of [our inspirational videos](https://hourofcode.com/promote/resources#videos) to frame the discussion:

* For younger participants, we recommend *“*[*The Hour of Code is Here*](https://youtu.be/FC5FbmsH4fw)*.”*
* For older participants, we recommend *“*[*Anybody Can Learn*](https://youtu.be/qYZF6oIZtfc)*.”*

It’s okay if both you and your participants are brand new to computer science. Here are some ideas to introduce your Hour of Code activity:

* Explain ways that technology impacts our lives, using examples both boys and girls will care about (e.g. talk about saving lives, helping people, connecting people, etc.).
	+ 3D printing is being used to create limbs for amputees; microchips to find lost pets; Skyping relatives who are far away to keep in touch.
* Explain that learning computer science is more than learning to code in a computer language, it's about learning how computers and software are changing everything in our world.
	+ Digital animation in movies like Inside Out, Shaun the Sheep, Star Wars or Hunger Games; recording music with GarageBand on your computer, mobile banking.
* Express how it's important to learn more about how technology works regardless of what career they want to go into.
	+ Farming (using data for watering and fertilizing), fashion (programmable LED dresses at New York Fashion Week 2015), medicine (using robots for surgery)
* List things that use code in everyday life, or a list of careers the require knowledge of coding or computers.
* See tips for getting girls interested in computer science [here](https://code.org/girls).

### Direct participants to the activity (1 minute)

* Write the tutorial link(s) you’ve chosen on a whiteboard. Find the link listed on the [information for your selected tutorial](http://code.org/learn) under the number of participants.
* Tell participants to visit the URL and start the tutorial.
* **Tip:** For younger participants, load the tutorial page ahead of time or save it as a bookmark.

## Activity (20-40 mins)

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### Facilitate and support participants to complete the tutorial, alone or in groups

**When someone comes across difficulties**

It’s okay to respond:

* “I don’t know. Let’s figure this out together.”
* “Technology doesn’t always work out the way we want.”
* “Learning to program is like learning a new language; you won’t be fluent right away.”

**What to do if someone finishes early?**

* Participants can see all tutorials and try another Hour of Code activity at [code.org/learn](http://code.org/learn).
* Or, ask those who finish early to help a friend who is having trouble with the activity.

## Wrap-up (5-10 mins)

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### Reflection & Celebration

* Conduct a closing reflection activity. See ideas below.
* Celebrate and [pass out certificates](http://code.org/certificates) and stickers.
* Share photos and videos of your Hour of Code event on social media. Use #HourOfCode and @codeorg so we can highlight your success, too!

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### Other ideas for reflection & celebration

* Do a gallery walk so participants can see each other’s work.
* Do a “[Think-Pair-Share](https://www.brown.edu/about/administration/sheridan-center/teaching-learning/effective-classroom-practices/think-pair-share)” to allow participants to reflect individually, discuss with a partner and share out as a group.
* Let participants know they can continue to learn at <http://code.org/learn/beyond>.

## Extended learning options (2-5 mins)

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### Optional

Time permitting, challenge participants to reflect on the day’s activities and continue their learning. Consider:

* **Exit Ticket.** Have participants complete an [Exit Ticket](https://docs.google.com/a/code.org/document/d/1ylIlO7Pppk6W3Jt58VHS5mjvnshg9URvj3iCU0Ok6qY/edit?usp=sharing) before leaving to assess learning.
* **Flip your classroom**. Challenge participants to pick one of the tutorials they didn’t complete today, but that one of their friends did, and try to do it on their own at home.
* **Writing prompt.** Have students journal about what they learned and how it made them feel.

## Beyond one hour

### There are many ways to go beyond an Hour of Code:

* Explore other curricula [from our partners](https://code.org/learn/beyond).
* Check out the Afterschool Alliance’s [computer science webpage](http://www.afterschoolalliance.org/STEM_computing.cfm), for resources and curriculum specific to the out-of-school time environment.
* If you’re working with youth in grades K to 5, try the [Code Studio Computer Science Fundamentals](http://code.org/educate/k5) courses. Code.org offers [free professional development](https://code.org/educate/k5) for these courses, [online](http://code.org/educate/professional-development-online) or [in-person](http://code.org/educate/k5).
* Invite a computer science expert to your class.[Sign up for a virtual speaker](https://education.skype.com/computerscience) through Microsoft’s “Skype in the Classroom” initiative.