

## AT A GLANCE

Teens learn basic and intermediate coding skills through self-directed courses and projects, with help from adult volunteers who have experience in computer programming.

## LEARNING OUTCOMES

Participants will:

- Apply basic coding concepts like algorithms, loops, and functions.
- Demonstrate computational thinking skills such as decomposing, pattern matching, and abstraction.
- Complete a variety of self-directed courses and projects in their area(s) of interest.
- Demonstrate leadership through peer mentoring.

## LOGISTICS

Format:	Location:	Audience & Max Group Size:	Run Time:	Set-up Time:	Clean-up Time:
Volunteer-run with staff host.  Participants work solo or in small groups.	TDC, program room or open area (if using Chromebooks)	Teens (age 13-17)  Max size depends on computer & space availability	90 minute weekly sessions  6 weeks	10 min	10 min

## MATERIALS NEEDED

Required	Alternative Materials
<ul style="list-style-type: none"> <li>• Chromebooks (preferred) or PCs – 1 per teen</li> <li>• Volunteer nametags</li> <li>• Paper and markers to make name tents for participants</li> <li>• Volunteer Log In Sheet (<b>provided</b>)</li> <li>• Whiteboard (1 or 2) and dry erase markers</li> <li>• TV or large screen and a laptop for the volunteers</li> <li>• Blue coding bin (for games and HDMI cable)</li> </ul>	<ul style="list-style-type: none"> <li>• Internet cards (if using PCs)</li> </ul>

## PREP & SET-UP CHECKLIST

### Before Arriving/In Advance of the Program

- Read through the program resources (see “Additional Resources for Staff” below)
- Give volunteers an orientation to your library (1/2 hour early before the first program session)
- Ensure that staff responsible for program setup have a seating plan and schedule. Participants will need extra chairs (in a TDC) or tables and chairs (if using Chromebooks). The configuration is up to you.

### Session Setup

- If possible, the computers should have the volume turned on (there are videos in the modules).
- The TV should be set up with an HDMI cable provided, so that volunteers and participants can demonstrate what they’re working on.
- You can bring in books about coding for display, but please be sure that they’re at an appropriate level for beginning coders (we have many computer books, intended for professionals, that could be very intimidating.) Generally, choose books that are visual rather than text-heavy. Topics like HTML, CSS, Javascript, and “how to code” are useful. Books from the J collections may be the right level but avoid anything that looks too childish.

## OVERALL TIMING

**5 min** – Welcome & sign in

**10-20 min** – Group activity or game

**60-70 min** – Working on projects/tutorials (with volunteers helping)

**5 min** - Wrap-up

## SAMPLE SCHEDULE

Time:	Staff Activity:	Participant Activity:	Volunteer Activity:
5 min	<ul style="list-style-type: none"><li>• Welcome teens and volunteers</li><li>• Help everyone get set up</li><li>• Record attendance</li></ul>	<ul style="list-style-type: none"><li>• Enter the room and find a computer</li></ul>	<ul style="list-style-type: none"><li>• Greet teens as they arrive</li></ul>
15 min		<ul style="list-style-type: none"><li>• Participate in group activity or game</li></ul>	<ul style="list-style-type: none"><li>• Lead group activity or game</li></ul>
65 min	<ul style="list-style-type: none"><li>• Check in with teens to see what they’re working on</li><li>• Check in with volunteers to make sure they have everything they need</li></ul>	<ul style="list-style-type: none"><li>• Work on tutorials or projects</li></ul>	<ul style="list-style-type: none"><li>• Get teens working on an online tutorial or project</li><li>• Circulate to monitor activity and answer questions. Check in with each teen to see how they’re doing</li><li>• Work on a related project using the TV (ie, class website)</li></ul>
5 min	<ul style="list-style-type: none"><li>• Thank everyone for</li></ul>	<ul style="list-style-type: none"><li>• Finish the section they’re</li></ul>	<ul style="list-style-type: none"><li>• Stay for a few minutes to answer</li></ul>

	coming <ul style="list-style-type: none"> <li>Record any feedback and pass it on to Carrie Kitchen</li> <li>Ask volunteers if they need anything for the next session</li> </ul>	working on	any last questions <ul style="list-style-type: none"> <li>Talk to staff host about how it went and any requests for the next session</li> </ul>
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## POST-PROGRAM CHECKLIST

### After Each Session:

- Enter participant attendance stats into PRMT.
- Check that volunteer attendance is correctly reported on the Volunteer Log In Sheet.

### After the Last Session:

- Return all Volunteer Log In Sheets to Maja Milavic in Volunteer Resources.
- Send any feedback about the program to [Carrie.Kitchen@calgarylibrary.ca](mailto:Carrie.Kitchen@calgarylibrary.ca)
- Your Post-Program reflection/notes for other library staff facilitating this program (*note: Service Design Leads will be collecting this feedback to iterate/inform program design*):
  - o What questions did participants (or volunteers) ask?
  - o Where did they get stuck?
  - o What little tweak do you want to try next time?

## ADDITIONAL RESOURCES FOR STAFF

All codeTEEN documents are available on Insight:

- Program Overview
- Staff Host Program Plan
- Volunteer Program Plan