



girls go cyberstart

Club Advisor Guide

www.ggcs.online/ca-guide

Introduction

Welcome to Girls Go CyberStart, a free, fun and interactive extracurricular learning program that helps young girls develop the skills they need to build a career in cybersecurity.

Your students will have access to hundreds of challenges, tools and games designed to nurture their interest in the cybersecurity profession. They will be introduced to a variety of related topics, including Linux, cryptography, and programming. These topics offer insight into the day-to-day responsibilities of a cybersecurity professional, and expose them to a wide range of specializations.

Stage one

cyberstart assess

The journey begins with CyberStart Assess. This phase consists of a series of questions, each harder than the last, that measure existing knowledge, problem-solving skills, and potential for a career in cybersecurity. No prior computer science experience is required, and students from all educational backgrounds are encouraged to take part.

Three phases make up the program: CyberStart Assess, CyberStart Game, and CyberStart Compete.

The phases are part of a pre-determined schedule, and participants must meet deadlines and other requirements to qualify for each stage. Access to each phase is not available year round, so it is important to note each time frame and determine how these timings will fit within your academic year. You can find this year's key dates at

www.ggcs.online/ca-guide

Register and sign your students up now!
www.ggcs.online/ca-guide

Stage two

cyberstart game

In CyberStart Game, students take on the role of a junior security agent. They are guided through a series of self-learning simulation exercises to gather information, crack codes, uncover security flaws, and dissect a cyber criminal's digital trail. Participants use our in-tool resources, team collaboration, and research techniques to advance to the next challenge.

Your Role As a Club Advisor

An advisor can be any adult associated with a (public or private) school or youth organization, including Girl Scouts, the YWCA, or a homeschool association.

As a club advisor, your first responsibility is to provide students with a comfortable workspace where they can dedicate time to playing and interacting with the online program.

You will also need to ensure that your students' accounts are associated with your club account by the end of stage one, so that your group is eligible for CyberStart Game.

Stage three

cyberstart compete

The top schools in each state will be invited to nominate a team of girls to participate in CyberStart Compete, a Capture the Flag competition. Teams will compete against other students from all over the country to win cash prizes for themselves and their schools!

Most importantly, you will help motivate and support your students as they progress through the program's challenges. You do not need any experience with cybersecurity to be a great advisor!

Who can play?

To be eligible to participate, students must:

- Identify as female
- Be at least 13 years old on February 18, 2019
- Be enrolled in 9th, 10th, 11th or 12th grade at a public or private school (or the homeschool equivalent) in a participating state. For a list of participating states, visit www.ggcs.online/ca-guide

Participants do not need an existing interest in gaming or experience with computer science to enjoy the program.

Check out our blog for more useful resources:

www.medium.com/girlsgocyberstart

If your club qualifies for CyberStart Game, your school will be awarded 50 additional CyberStart Game licenses that can be used by ANY students in the school.



What do I need to be a club leader? What does it entail?

All the material needed to run a successful Girls Go CyberStart club exists within the three phases of the program. The learning tools are effectively step-by-step guides that allow students to work on challenges by themselves and at their own pace. This means that your level of pre-existing knowledge will not affect students' success in the program.

If you have no background knowledge, why not try some of the challenges similar to those that students will work on when CyberStart Assess opens? You can trial some challenges at:

go.girlsgocyberstart.org

You should encourage students to do research independently and work together to solve challenges. There are plenty of online resources, including our social media channels and blog, that will help them succeed.

How do students learn?

Many of the attempts to educate young girls about cybersecurity have centred around adult learning techniques and trying to retrofit them to the way that young girls learn. Cybersecurity education within the Girls Go CyberStart program is different. Students learn by signing in to online tools and working through challenges by themselves, at their own pace.

As you and your students work through Girls Go CyberStart, you will see that the language and ideas used are those that young adults identify with. The second phase, CyberStart Game, includes challenging concepts that require common sense and analytical skills but promote them in an enjoyable and interesting way. The program has been designed for varying capabilities, with challenges that are accessible for all skill levels.

What equipment do I need?

CyberStart Assess and the first five levels of CyberStart Game can be run on a modern browser, including the latest versions of Chrome or Firefox. The majority of the challenges can be completed with standard browser functionality. For some you will require access to the browser developer tools, which are typically easily enabled. In some instances, you may also require scripting capabilities in order to access the higher level challenges.

A heavily restricted computer will allow you to complete many challenges, but to truly explore cybersecurity you will need some advanced access and tools. If browser developer tools and scripting tools are blocked or restricted, you may not be able to complete some challenges.

Students that make it to more advanced content will require a virtual machine, which is installed with all the tools required to complete the program. Instructions on how to set up the software and the virtual machine will be made available at the required stage. Student computers will need to be able to run VMWare Player or VirtualBox on a Windows or Mac device, respectively.

Win Great Prizes

Get your students involved for a chance to win a range of great prizes including:

1. Entry in a prize draw where 3 lucky schools will win \$1,000
2. Clubs with the highest numbers of girls registered will win:
 - 1st prize: \$1,000
 - 2nd prize: \$750
 - 3rd prize: \$500
3. The top-scoring Capture the Flag teams nationally and in each state will win cash prizes for students and their schools
4. At least ten high-scoring high school juniors and/or seniors per state will win \$500 college scholarships.



Tracking Progress

Once signed in to the CyberStart portal, there are two ways to track your students' progress. The first is via the 'your students' page. This page is a high level overview that, at a glance, will quickly tell you what students are currently working on and how they compare to other club members. There is also a note under each player giving you a more detailed description of their current position in the program. For example, it will let you know if they have been invited to play one of the tools but have not yet signed in, whether they are signed in and playing, or if they have completed a phase and their score.

The second is via the 'program stages' page. In this section of the portal, each of the four phases has its own tab. Within each tab, you will see a 'students at this stage' section. This area gives a summary of where students are within that tool. Updates will include when someone has been invited but has not yet signed in, signed in but not yet scored, or played, and their score.

Once registered and signed in to the Girls Go CyberStart portal, students will also be able to track their progress in their own personal timeline. Their timeline will update them when another phase opens, give them reminders to register, and show their latest score for each tool. This is also where students can see if they have made it through to the next stage of the program.

Student Resources

Girls Go CyberStart follows an inverted learning model, so any additional support you choose to give to a student is entirely up to you. All the material that students need to teach themselves and succeed exists within the program's tools. However, you will have access to all the content if you would like to create small teaching modules or demonstrations, and structure your sessions by topic.

If students become stuck and are unable to progress, there are plenty of helpful resources within the tools. CyberStart Assess is an aptitude assessment so the resources are limited. Students will need to carry out research using the internet and resources, such as our blogs, for clues and tips. However, within CyberStart Game there is a field manual, which will help them progress.

One point to note: it is not considered cheating for students to use team mates and search engines to try and find more information about a tool or technique. That is simply being a great security practitioner!

Club Advisor Resources

We have a range of resources available to download, including student flyers, advisor flyers, example lesson plans and much more:

www.ggcs.online/teacher-resources

cyberstart go

Why not head over to CyberStart Go, where you can try a quick sample of CyberStart Assess and CyberStart Game? It's free to use and features over a dozen challenges.

www.go.girlsgocyberstart.org

Welcome to Girls Go CyberStart

Designed to be accessible to those without any pre-existing cybersecurity knowledge, Girls Go CyberStart will teach young women the skills and techniques that will give them a significant advantage if they choose to pursue a career in cybersecurity. The program also aims to raise the profile of the cybersecurity profession amongst high school students, encouraging them to follow a career path that is fun, challenging, interesting and rewarding, as well as being of vital national importance.

Could the next cybersecurity experts be sitting in your class?

Register today at:

www.ggcs.online/ca-guide

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