



A project-based learning

Cyberethics

Cybersafety

Cybersecurity

For students and adults alike, technology is a powerful tool that opens up endless possibilities for communications, creativity, work and fun. However, the power of technology can also be misused in some decidedly dangerous ways. In this project, you and a team will develop a presentation that teaches other teens how to use technology responsibly. Who better to showcase the pros and cons of technology than the generation who uses it the most?

Overview: The National Cyber Security Alliance knows that giving teens a thorough knowledge of cyber ethics, safety and security is critical, since young people are highly engaged with technology and will become part of a tech-savvy workforce entrusted with the information that businesses and the nation need to survive. Because Internet technology is so new and always changing, there isn't a standard way to teach students about these issues. Traditionally, technology training has been aimed at developing and applying computer skills rather than teaching about how to make a computer safe or how to conduct oneself online. In the (C3)ⁱ project, you will become part of a new generation of technology trainers by making a presentation that teaches your peers about a particular aspect of online safety.

STEP 1

Investigate your topic: In this step, your teacher will divide your class into groups of three and assign each group one of three topics: cyberethics, cybersafety or cybersecurity. Next, your group will divide up the subtopics listed below and research them using the Internet (there are suggested websites given on Page 3). As you investigate each of your assigned topics, take notes on the information that you believe it is critical for teens to understand.

Cyberethics

- ▶ plagiarism
- ▶ copyright information
- ▶ hacking
- ▶ cyberbullying
- ▶ harassment
- ▶ fair use
- ▶ file sharing
- ▶ online etiquette
- ▶ posting incorrect/inaccurate information
- ▶ stealing or pirating software, music and videos
- ▶ online gambling
- ▶ gaming
- ▶ Internet addiction
- ▶ reporting criminal intent

Cybersafety

- ▶ online predators
- ▶ objectionable content
- ▶ cyberstalking
- ▶ downloading
- ▶ cyberbullying
- ▶ hate groups
- ▶ unwanted communication
- ▶ online threats
- ▶ social networking tips
- ▶ reporting criminal intent

Cybersecurity

- ▶ hoaxes
- ▶ viruses
- ▶ junk e-mail
- ▶ chain letters
- ▶ get-rich-quick schemes
- ▶ scams
- ▶ hacking
- ▶ spyware
- ▶ adware
- ▶ malware
- ▶ trojans
- ▶ phishing
- ▶ pharming
- ▶ identity theft
- ▶ privacy
- ▶ strong passwords
- ▶ firewalls and other protections
- ▶ data backups
- ▶ reporting criminal intent



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STEP 2

Share your findings: Now that you have each thoroughly researched the subtopics you were assigned, you can share your notes with your teammates. As you share your information, discuss and make note of any personal experiences that you have had related to the subtopic at hand. For example, if you are talking about computer viruses, discuss any problems viruses have caused you and describe the steps you had to take to solve them. Finally, review all of your research and personal notes. Choose the three most interesting or important subtopics. These will be the focus of your presentation. Assign one subtopic to each member of your group.

STEP 3

Poll your peers: Write six poll questions – two about each subtopic – that you can ask other teens. The questions can be true/false, multiple-choice or open-ended. Some examples include: “Is it illegal to post misinformation on the Internet?” Or, “How important is it to have a firewall installed on your computer?” Divide up the questions so that each teammate is responsible for two. Then, you should each ask 20 other teens your two questions and record their responses. In the next step, you will analyze your data.

STEP 4

Analyze your data: As individuals, analyze the data you gathered by creating a graph (where possible) for each of your two questions. Then, study your graphs and note any interesting findings. Do the answers you received show a lack of knowledge or evidence of misinformation? Share your graphs and findings with the other two members of your group. Then, decide what conclusions you can draw from them. Now, considering your research, personal experiences and polls, list the information about your three subtopics that you want to include in your presentation.

STEP 5

Determine your theme: You are going to create a presentation that teaches teens about your topic (i.e., cyber ethics, safety or security). Your presentation can be in any format you choose – a video, a podcast, a webpage, a scrapbook or something entirely original. Like all effective presentations, yours should have a theme. A good theme will hold your presentation together and make it creative and interesting. If you make your theme your title, it will also pique people’s curiosity about your topic. A really good theme will be symbolic. It won’t have the word “cybersecurity” in it at all, but will instead use a metaphor like “chain link fence.” Brainstorm some symbols that could become themes for your presentation. You can also try looking at the issue from a different perspective (e.g., from the perspective of a computer). In short, find a theme or a way of looking at the topic that will make it highly engaging while still being educational. Talk over your possible theme ideas and think about how you could mold your research and data into a cohesive presentation based on one of those possibilities. Finally, in writing, reflect on your theme. How will it get your message across? Why did you choose it? Why do you think it will resonate with your audience?

STEP 6

Create your presentation: You now have facts, data, personal experiences and opinions about the topic you were assigned. You have also determined what the theme of your presentation will be. The goal now is to make an engaging, educational and persuasive presentation that informs teens about the three subtopics you chose. Follow the do and don’t lists below.

Do	Don’t
<ol style="list-style-type: none"> 1. Create a presentation that stands out from the crowd. Be very creative! 2. Include at least 10 facts or statistics and the results of at least two of your polls. 3. Clearly indicate what the topic of your presentation is (i.e., cyber ethics, safety or security). 4. Make sure everyone in your group is equally involved in making the presentation. 5. Persuade your audience: teens. 6. End with a strong message. Tell your audience what action to take. 7. Add a little humor; it’s always a nice touch. 8. State the benefits of staying safe online. 	<ol style="list-style-type: none"> 1. Use art or music that is protected by copyright laws. 2. Plagiarize from the websites you researched. 3. Make a presentation that is more than two minutes in length. 4. Receive professional help.

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Research links

- ▶ National Cyber Security Alliance – StaySafeOnline
www.staysafeonline.org
- ▶ National Cyber Security Alliance – StaySafeOnline Related Links page
www.staysafeonline.org/content/related-links
- ▶ The Department of Homeland Security’s Critical Infrastructure/Key Resources Protection Resources
www.dhs.gov/xprevprot/programs/editorial_0211.shtm
- ▶ Federal Trade Commission – OnGuardOnline
onguardonline.gov
- ▶ i-SAFE
www.i-safe.org
- ▶ Wired Safety Organization
www.wiredsafety.org
- ▶ Multi-State Information Sharing and Analysis Center
www.msisac.org/awareness
- ▶ Kidshealth.org – Safe Surfing Tips for Teens
kidshealth.org/teen/safety/safebasics/internet_safety.html#




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TEACHER'S GUIDE

Project-based learning objectives:

In this project, student groups will:

- ▶ Use the Internet to research cyberethics, cybersafety or cybersecurity.
- ▶ Take detailed notes on a set of given subtopics.
- ▶ Share experiences that they have had with cyberethics, cybersafety or cybersecurity.
- ▶ Poll other teens about their topic and graph their responses.
- ▶ Choose a theme for a presentation about their topic.
- ▶ Create an engaging presentation that teaches critical information about their topic to other teens.

Time requirements:

Step 1: Investigate your topic (1-2 weeks)

Step 2: Share your findings (2 days)

Step 3: Poll your peers (1 week)

Step 4: Analyze your data (2 days)

Step 5: Determine your theme (1-2 days)

Step 6: Create your presentation (1-2 weeks)

Total: Approximately 4-6 weeks

Recommendations:

Step 1:

- ▶ Allow students to read through the entire project and ask questions of you as needed.
- ▶ Point out that, as with books and other printed work, plagiarism of online material is illegal.
- ▶ Assure groups that their presentations do not have to include all of the subtopics listed under the topic you have assigned them.
- ▶ Tell students that it is critical that teachers be trained to teach cyberethics, safety and security, so you look forward to learning much from their presentations.
- ▶ Once students have been given the project instructions, they are free to work at their own pace and may need minimal help from you.

Step 2:

- ▶ Check to ensure that all members of the group have done their share of the research.
- ▶ Encourage students to share personal experiences with technology. This will connect them to the topic.

Step 3:

- ▶ Help students write clear poll questions that will yield valuable information.

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Step 4:

- ▶ Using a student's answers to one poll question, demonstrate how to graph the information and draw conclusions about it.
- ▶ Review groups' lists of the information they plan to include in their presentation.

Step 5:

- ▶ Guide groups as they choose a theme for their presentation.

Step 6:

- ▶ Use the "Do" checklist as a way to evaluate each group's presentation.
- ▶ Allow the class to give verbal feedback after each group's presentation.
- ▶ Ask groups to review their reflection papers from Step 5. As a group, have them discuss and write down how successful they think their presentation was. Did it resonate with their audience?