

# Computer Science Lesson Plan

- Target Audience:** 4<sup>th</sup> Grade
- Time Required:** 30-minute time slots—how many time slots needed varies depending on the class size, students' experience with Google Drive, Slides, and time it takes to complete Internet research.
- Activity:** **Cybersecurity Slideshow**  
\*\*This can be completed as a culminating lesson—after a cybersecurity unit has been taught to the students OR this can be completed as an introductory lesson, to introduce students to the different types of cybersecurity issues that may affect them.
- Before beginning the lesson, ensure the slideshow is shared with the students. (Post the shared Google Slides link in Canvas for students, share the link in Symbaloo, or share the link with each student directly by typing their e-mail addresses once you click SHARE it would then be found in their “Shared with Me” section in Google Drive.
  - Ask the question in the Engage section below.
  - Tell the students that they are going to be learning about cybersecurity issues by researching an assigned cybersecurity issue and completing a slide that provides information about their cybersecurity issue and the student's input on how a person can prevent that issue from happening to them. The student's slide will be a part of a whole-class slideshow.
  - Click this link: <https://tinyurl.com/2p9fe688> for the slideshow template. (Once it loads, click MAKE A COPY to have your own slideshow you can edit.)
  - Review the two standards that are at the beginning of the slideshow (slides 2 & 3). Reiterate to the students that these two standards go together with each other—just as we want students to be cyber aware and be mindful of what is shared [or clicked on] in the future, we also do not want our students to exhibit inappropriate or unlawful behavior online or be the cyber attacker.
  - Give an overview of the slideshow and explain to the students that each of them will have their own unique slide to work on.
  - Each student will be assigned a random cybersecurity issue from the list of issues located on slide 4.
  - Click on the “CHOICES” picture, a link will be provided that will allow you to randomly assign which student presents on which cybersecurity topic listed on slide 4. The link goes to a random choice generator website in which you can type in the seven cybersecurity issues (or students' names) and let the choice generator output one out at a time for each student (or topic). Begin with slide 7 (the first blank slide) with a student's name typed in to replace the words 'Student 1'. (I usually begin by typing in students' names in alphabetical order on each slide in the slideshow, but that choice is yours.)
  - Depending on the number of students in your class, two or three students may report on the **same** cybersecurity issue, since there are only seven cybersecurity issues. (You could choose which of the seven cybersecurity issues that you feel are the most important for your age group and have double or triple the number of students research and present on those particular topics.)
  - Review with the students the rubric located on slide 6. Provide a printed copy, if necessary. That can be found at this link: <https://tinyurl.com/23bkv3sc>  
(Click MAKE A COPY once it opens in your Drive. Now you can edit it.)
  - Once students have all been assigned one of the seven cybersecurity issues, please tell them to begin searching the Internet for information about what that issue is all about. For example, some students might not know what phishing is about. It is up to the student(s) who were assigned that topic to explain what it is about to the other students

using their slide in the slideshow.

- Also, not only is the student presenting on his or her slide information about the assigned topic, but they will also provide one or two sentences to explain what people can do to protect themselves from being a victim of that specific cybersecurity issue. ONE [small] relevant picture can be included on the slide, reiterate this to keep students from using only pictures.
- The teacher will be the facilitator in this lesson, helping students who need help with either content, research, or Google Slides.
- Once all students are finished (this will take several sessions), the slideshow will be presented to the entire class. It is up to the teacher whether students stand up and present orally or not.
- **5.NI.C.01:** Discuss real-world cybersecurity problems and identify and implement appropriate strategies for how personal information can be protected.
- **5.IC.SI.02:** Practice grade-level appropriate behavior and responsibilities while participating in an online community. Identify and report inappropriate behavior.

## Standards:

## Learning Outcomes:

Students will gain a better understanding of the different types of cybersecurity issues and ways they can keep their personal information safe. In addition, students will be encouraged to positively participate in an online community and not be afraid to report any behavior that is deemed inappropriate to appropriate trusted adults.

## Engage

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Ask a question.

- “Has anyone had their personal information stolen from them or shared on the internet? Or does anyone know someone who had their personal information stolen or shared on the internet when they did not want it to be?”

## Explore

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Tell the students what they are going to explore.

- “Today you are going to begin exploring different types of cybersecurity issues. You will be assigned a certain topic and it is your responsibility to learn about that topic and show what you have learned on an assigned slide in a class slideshow. You will also explain how a person can protect themselves from the cybersecurity issue you described. You can use one picture, but it MUST be small and be relevant to your topic.”

## Explain

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Explain the steps of the process.

- “First, you will type what your cybersecurity issue is on your slide. Then, you will research the internet to find as much information as possible about that cybersecurity issue. Next, you will paraphrase that information and put it on your slide. Last, you will write one or two sentences that describe how a person can protect themselves from that particular cybersecurity issue. Last, you can add a small, relevant picture.”

## Elaborate

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Ask how students can be cyber aware at home.

- “What can you do at home and at school while you are working or playing online in order to protect yourself from cybersecurity issues we just learned about?” Have a class discussion.