Standard: NI.C.01 Grade Band: 3-5

Grade	Standard
3	Discuss basic issues that relate to responsible use of **computing devices** and describe consequences of inappropriate use in a variety of locations.
4	Identify problems that relate to unsecure **networks** and inappropriate use of computing devices and potential subsequent consequences.
5	Define **personal identifiable information** (e.g., digital footprint) and why it should be protected as related to real-world **cyber security** problems.

Grade	Essential Skills
3	Provide examples of how to use **computing devices** responsibly in public places. Outline some of the problems that may result from using public internet access and/or public devices.
4	Describe the consequences of using unsecure **networks** and inappropriate use of computing devices.
5	Compare and contrast **personal identifiable information** and **digital footprint** and provide examples of each. Identify **cybersecurity** issues that can result from not protecting personally identifiable information.

Explanation
Student will discuss why and how **personal identifiable information** (PII) can and should be protected online. Responsible use of **computing devices**, such as use of anti-**virus software** and accessing only safe internet sites, will help protect devices and PII. Students will examine how PII can be compromised (e.g., through the use of public, unsecured Wi-Fi and not logging out when using public computers) and determine the consequences that are associated with unprotected PII such as the identity theft, **hacking**, and computer viruses. By fifth grade students should have a complete understanding of how almost everything they do on the internet creates their **digital footprint**, information, that is acceptable to share publicly (e.g., their favorite color), and the kinds of situations in which it is acceptable to share some of their PII (e.g., ordering merchandise from a reputable internet site).

Think of this as similar to….
We protect our personal property by locking doors and using a home or car security system.

Essential Questions
Why should you use caution when using public Wi-Fi and public **computing devices**?
How can you use computing devices in a responsible manner?
What are some consequences of not protecting your PII (**personally identifiable information**) could be compromised?

Implementation Examples—What would this look like in the classroom?

Grade(s)	Title	Description	Link	Content Connection & Notes
3	**Zuky's Safety Guide**	**Grade 3**--Students identify behaviors that put their devices and information at risk in the videos "Keep Physical Security in Mind" and "Be Careful with Links." They then discuss some ways they can protect their personal information and their devices.	Kids in Cybersecurity	
3-4	**Children's Interactive Cybersecurity Activity Kit**	**Grade 3**--Students identify appropriate and inappropriate online behaviors in this video and workbook. Discuss how using public Wi-Fi and devices can increase the chances of others gaining access to personal information. Students should brainstorm ways of staying safe on public Wi-Fi and devices, such as logging off correctly, and avoiding inputting sensitive private information when in public places. **Grade 4**--Students identify instances in the video and workbook where consequences of using computing devices inappropriately are discussed. Students can role play scenarios and ways to keep themselves and their information safe.	Use the Captain Awareness Video and the Epic Cyber Hero Handbook	This lesson also aligns with **CS** IC.SI.01
4	**Winning the Cyber Security Game**	**Grade 4**--In this lesson, students discuss their online experiences and learn how to minimize the potential risks that may be associated with them. Using the Cyber Security Tip Sheet, students explore the many tools and strategies that can be used to mitigate or prevent negative online experiences. Once they have reviewed these strategies and resources, students will extend and test their knowledge by playing a game in which they compete against other students to match a series of technological "Tools" to the "Risks" they can help to prevent. This lesson is written for older students but can be adapted.	Winning the Cyber Security Game	Allow adequate time for set up of game and adjust implementation so students have appropriate background knowledge.
5	**Data Defenders**	**Grade 5**--Students play this interactive game and have to make decisions about what personal information to share. They explore reasons their information is collected and ways they can protect their privacy while still using the games and apps they enjoy. .	Data Defenders	

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5	**Privacy: Digital Footprint**	Grade 5--Students review the types of information that create their digital "footprint" that can tell others and connections that create a record of where they have been online. Students determine what is acceptable to share and how sometimes non-identifiable information can sometimes be compiled to become identifiable information.	Download Digital Footprint lesson from module 2: 8–10-year-olds from Cyber Aces	Free account necessary to download lesson. Also see Lesson 8 in Course E of Code.org Fundamentals
5	**Our Online Tracks**	Grade 5—Students examine how online activity creates their digital footprint. They explore the ways they can and cannot control their digital footprint, and what information is included.	Our Online Tracks	Free account necessary to download this Common Sense Media lesson.

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These annotations are a collaboration between Maryland Center for Computing Education and the Maryland State Department of Education.