

Standard: NI.C.01 Grade: 2

Standard 2.NI.C.01

Identify differences between strong and weak passwords and explain the importance of choosing strong passwords to protect devices and information from unauthorized users.

Essential Skills

Differentiate between strong and weak passwords and create a strong password.

Explain the importance of strong passwords in protecting privacy, devices, and files.

Essential Questions

Why is it important to use passwords and to keep them private?

What makes a strong password?

Explanation

Students will utilize passwords for access to **computing devices** or **applications** and be able to explain that they protect their personal information and devices. They should recognize that protecting one's device or information from unwanted use by others is an essential first step in **cybersecurity**. By second grade, student should understand that a strong password contains 8 or more characters with a mix of numbers, upper- and lower-case letters and special characters.

Think of this as similar to....

You shouldn't give strangers information about you like your phone number and address.

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

Title	Description	Link	Content Connection & Notes
Princess Password	<p>Grade K--Read the Princess Password story to students as a class. Students should recognize when the Princess used a password and relate it to their use of a password. They should also recognize what happens if a password is shared.</p> <p>Grade 1--After reading the story as a class, students should identify what the password is used for in the story and how the Princess could have kept her password safer. Students should identify other ways in which passwords should be kept safe and private.</p> <p>Grade 2--Students identify the benefit of using a password on their game accounts and other accounts. Students should create guidelines for the Princess to create a new password.</p>	<p>The Princess' Password Book and Discussion Guide</p>	<p>This lesson may also align to ELA Reading standards.</p>
Password Power-Up	<p>Grade 2--Students brainstorm issues that could come up if strong passwords aren't used to protect email, gaming logins, etc. Students then create strong passwords.</p>	<p>Password Power Up</p>	<p>This lesson is from a Code.org course.</p>
Code	<p>Grade 2--Students play a game of guessing a three-character code. In the first version of the game, the characters are only numbers (as in 358). In the second version, characters may be numbers or letters (as in p7z). Students describe why it would take longer to guess the correct code in the second case and relate this to what makes a strong password. Students explore strong password components (combination of letters, numbers, and characters), create their own passwords, and write opinion pieces providing reasons their passwords are strong, using linking words as appropriate and providing a concluding statement.</p>		<p>This lesson is also aligned with ELA 2.SL .1, and .2.W.1</p>

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These annotations are a collaboration between [Maryland Center for Computing Education](#) and the [Maryland State Department of Education](#).