



2.CYB.2 Cybersecurity

The student will explain the importance of using passwords to protect private information. (a) Identify and classify passwords as strong or weak. (b) Explain how a strong password helps protect the privacy of information. (c) Explain the risk of sharing passwords.

Understanding the Standard

Connecting devices to a network or the Internet provides great benefit, but care must be taken to protect private information such as a student's name, phone number, and address. To protect private information, many online platforms use usernames and passwords to make sure that only certain individuals have access to a person's information. Usernames are unique account names given to individuals and should not include private information such as full names or phone numbers. Passwords are used to protect devices and information from unauthorized access. Because computer programs can be used to guess passwords, strong passwords have characteristics that make them more difficult to guess. Many websites have rules as to the length and composition of passwords; these rules help create stronger passwords. The practice of not sharing passwords should be emphasized in the classroom and at home.

Term	Definition
Username	A special public name given to an individual to identify them on an online network.
Password	A secret code used to log into accounts and keep information private.
Strong password	An effective password that would be difficult to break
Weak password	A password that is easy to guess or to break by repeatedly trying a list of words or letter combinations

Prerequisite Knowledge

Students should have a basic understanding of safe and unsafe actions. Students should also have knowledge of the word private, but may need additional help in applying the definition to information. In order to properly discuss the features of strong passwords, students should have an understanding of different text characters, such as uppercase and lowercase letters, numerals, and symbols.

Summary of a Lesson

Students will plan and create a comic strip using paper and pencil or a digital tool such as Scratch Jr. The comic strip should feature an original superhero character and a strong password. The comic strip's storyline should emphasize why it's important to protect personal information online and demonstrate the characteristics of a strong password.

Integration Opportunities

Math 2.PFA.1 Create bracelets using colored beads to represent strong and weak passwords, with specific color sequences indicating different password strength levels. As students design their bracelets, discuss the features of a strong password and identify patterns within their creations.

Visual Arts 2.17 Create posters or other visual representations that promote the use of strong passwords to protect personal information, using art to convey the message that strong passwords are an important tool for staying safe online.

Physical Education 2.4c.e Play "Password Tag", where students have to tag their classmates and say a strong password before they can run away. Encourage students to use new "passwords" each time and explain how they chose them.