

Draft

Lesson Plan 1: Cybersecurity

- A) Authentication (10mins)
 - a) What is it? (class)
 - i) Authentication is how we show something is true.
 - b) What are some examples of personal authentication? (group discussion)
 - i) Passwords
 - ii) Identity Document (ex: Birth Certificate, Driver's License)
 - iii) Personal Identifiable Information (Birthday, birth location, family names)
 - iv) Unique Physical Traits (fingerprints, photo)
- B) Passwords (10mins)
 - a) Why do we use passwords online?
 - b) What makes a password strong?
 - c) How can we make our passwords easy to remember?
- C) Activities (10mins)
 - a) Individually
 - i) Pick two categories where you can draw a fact that is always true
 - (1) Example: Favorite
 - (a) Color
 - (b) Food
 - (c) Sport
 - (d) Team
 - (e) Person
 - ii) Create a rule using those two facts to formulate a code
 - b) Groups of 4-6
 - i) Discuss and agree on a weak password
 - ii) See if other groups can guess it.
- D) Test (20mins)
 - a) Make a Secure Password
 - i) Define the Key Vocabulary term: secure - safe and protected. Tell students that they will now practice creating a new, secure password. Distribute four blank index cards or strips of paper to each student. Instruct students to write down an answer for each of the following categories, one per blank index card or strip of paper:
 - (1) Favorite number
 - (2) Pet's name, or favorite character's name
 - (3) A symbol (#, \$, %, *, or &)
 - (4) Favorite food
 - ii) Have students arrange the four strips in various combinations to create a new password, keeping in mind the DOs and DON'Ts tips they discussed earlier. When they've finished, have them share their new password with a partner, and then have them vote on which password they consider the

strongest. For an added challenge, students can tear words apart to create more options for combinations.

iii) Invite students to share their winning passwords with the class, and discuss what makes them so strong.

iv)

b) Play the Test Your Password Game

i) Tell students that they are now going to play “Test Your Password,” a game that tests how secure their passwords are. Have students line up against one wall of the classroom, or go to a bigger space, such as the playground. Tell them that you will call out statements about password protection, along with what to do in response if the statement is true for them.

(1) Statement 1: If you change your password at least every six months, take three steps forward.

(2) Statement 2: If you use your nickname as your password, take two steps back.

(3) Statement 3: If your password includes letters, numbers, and symbols, take three steps forward.

(4) Statement 4: If your password has less than eight characters, take one step back.

(5) Statement 5: If you haven't changed your password in two years, take four steps back.

(6) Statement 6: If your password has at least eight characters, take two steps forward.

(7) Statement 7: If you let your friends use your password, take two steps back.

(8) Statement 8: If no one except you and your parent or guardian knows your password, take two steps forward.

(9) Statement 9: If your password has no private information, take three steps forward.

(10) Statement 10: If your password is a word in the dictionary, take two steps back.

(11) Statement 11: If your password is hard for you to remember, take two steps back.

(12) Statement 12: If your password is not your home phone number, take two steps forward