

Course: Texas Web Communications I Module: Digital Citizenship & Cyber Hygiene



Lesson 1.5: Privacy & Security

<https://codehs.com/course/9565/lesson/1.5>

Description	In this lesson, students will discuss and examine policies regarding privacy and security. Using best practices like setting strong passwords, reading privacy policies, and using https can help in staying safe online.
Objective	<p>Students will be able to:</p> <ul style="list-style-type: none"> • Use best practices in personal privacy and security, including strong passwords, using https, and reading privacy policies
Activities	<p> 1.5.1 Video: What is Data Privacy & Security? 1.5.2 Quiz: Privacy & Security Quiz 1.5.3 Connection: How Strong is your Password? 1.5.4 Free Response: How Strong is your password? 1.5.5 Connection: Google Privacy Policy Search 1.5.6 Free Response: Google Privacy Policy Search 1.5.7 Example: Guess: Password List 1.5.8 Example: Guess: Using an Algorithm 1.5.9 Example: Guess: Brute Force </p>
Prior Knowledge	No prior knowledge needed.
Planning Notes	<ul style="list-style-type: none"> • Review the slides and activities for the lesson before the start of class • (Optional): Review this article on privacy policies • (Optional): Review this article on 6 Common Phishing Attacks • Students may have difficulty understanding why their data is valuable to organizations. Take some time to discuss how companies might use data. • There are handouts that accompany this lesson. Determine how and if these handouts will be used and make the appropriate number of printouts prior to the class period. • This is a longer lesson and may need to be split into two class periods.
Standards Addressed	
Teaching and	

Learning Strategies

Lesson Opener:

- Have students brainstorm and write down answers to the discussion questions listed below. Students can work individually or in groups/pairs. Have them share their responses. [5 mins]

Activities:

- Watch the lesson video and complete the corresponding quiz. [5-7 mins]
- Explore the *How Strong is your Password* connection and respond to the corresponding free response activity. [15 mins]
- Explore the *Google Privacy Policy Search* connection and respond to the corresponding free response activity. [15 mins]
- Explore the *Guess: Password List* simulation. [10 mins]
 - How would having a password dictionary help to crack into someone's account?
 - How would knowing just a part of a password help to crack into someone's account?
 - *Advanced:* Change the variable `wordCount` to a larger number or `guessCount` to a lower number to increase the difficulty in guessing the word.
 - Allow students to look at and play around with the code. If the simulation stops working, have students go to the HISTORY tab and reset their code.
- Explore the *Guess: Using an Algorithm* simulation. [10 mins]
 - Locate the variable called 'digits' and change to any number from 1-9. How does this affect the time it takes to crack the code?
 - *Note: It may take the computer up to a full minute to crack the code when this is changed to a higher number.*
 - Allow students to look at and play around with the code. If the simulation stops working, have students go to the HISTORY tab and reset their code.
- Explore the *Guess: Brute Force* simulation. [10 mins]
 - How many guesses does it take when the hints are given?
 - How would increasing the MAX number affect the different possibilities? Is brute force still a valid option for cracking the code?
 - *Advanced:* Delete the commands `println("High");` and `println("Low");`. Can students guess the code now?
 - Allow students to look at and play around with the code. If the simulation stops working, have students go to the HISTORY tab and reset their code.
- Complete the *I've Been Phished* handout. [15 mins]
 - Students can work in pairs or individually.
 - Bonus: Have students create their OWN fake phishing email.
- Complete the *Is Your Head in the Cloud?* handout. [15 mins]
- Complete the *Creating a Privacy Policy* handout. [20 mins]

Lesson Closer:

- Have students reflect and discuss their responses to the end of class discussion questions. [5 mins]

Discussion Questions

Beginning of Class:

- Why do you think companies collect our data?
 - *Sample Response: Companies want our data to strengthen their marketing strategies.*
- How do you feel about an app or website collecting information about you? Why or why not?
 - *Answers may vary.*
- What information is most important to keep secure and why?
 - *Sample Response: Location data is important because that ensures your physical safety and well-being.*

End of Class:

- What is the difference between data security and data privacy?
 - *Data security ensures that the data is accurate and reliable and is available when those with authorized access need it. Data privacy is the appropriate use of data according to the agreed purposes.*
- What are a few password strategies to ensure the strength of your password?
 - *Complex passwords are typically longer in length, contain a combination of lower case letter, upper case letter, special characters, punctuation, and numbers. They will be completely random and not have full words written out. It's also important to use different passwords for different accounts so that if one password is hacked, only one of your accounts needs to be taken care of, rather than all.*
- What are you agreeing to when you sign a privacy policy?
 - *By checking the you agree box on a privacy policy you are granting that company permission to use your data in the ways they outlined it.*

Resources/Handouts

[I've Been Phished \(teacher version\)](#)

[I've Been Phished \(student version\)](#)

[Is Your Head in the Cloud? \(student\)](#)

[Is Your Head in the Cloud? \(teacher\)](#)

[Creating a Privacy Policy \(Teacher Version\)](#)

[Creating a Privacy Policy \(Student Version\)](#)

Vocabulary

Term	Definition

Data privacy	how company's use your data
Data security	protecting your data online
https	secure data transfer protocol when on the internet
Privacy Policy	Legal document outlining how a company can collect and use your data

Modification: Advanced	Modification: Special Education	Modification: English Language Learners