



Lesson 1.2: The Internet

https://codehs.com/course/2329/lesson/1.2

Description	<p>In this lesson, students will explore what the internet is and how it can be used for socially beneficial activities, as well as how the internet can be used in potentially harmful ways. Students will examine how computers are connected with local and global networks to create a very large web of networks we know as “the internet”.</p>
Objective	<p>Students will be able to:</p> <ul style="list-style-type: none"> • Describe how they are able to get specific webpages to their computers • Explain that the internet is a network of networks • Compare and contrast the different levels of censorship that different organizations or countries impose on the internet
Activities	<p> 1.2.1 Video: What is The Internet? 1.2.2 Quiz: What is the Internet? Quiz 1.2.3 Connection: Internet Censorship: Google's Dragonfly Project 1.2.4 Free Response: Internet Censorship Reflection 1.2.5 Connection: The Right to Remain Anonymous? 1.2.6 Free Response: Anonymity Reflection 1.2.7 Video: How does the Internet Work? 1.2.8 Quiz: How does the Internet Work? Quiz 1.2.9 Free Response: Internet Protocols </p>
Prior Knowledge	<ul style="list-style-type: none"> • Students should be able to load a webpage using a browser
Planning Notes	<ul style="list-style-type: none"> • Review the slides and activities for the lesson before the start of class • You may want to find examples of internet censorship in the news to relate the course to current events. This video provides a great overview of Internet censorship, but please review before showing your class as it contains some language that might not be appropriate in your class. • There are Youtube videos associated with this lesson. If school has a firewall or disabled access, think about workarounds, such as showing the video on teacher computer, allowing students to watch on their phones, or assigning them as homework for students to complete at a later time. • This is a long lesson, that might be best delivered in multiple class sessions.
Standards Addressed	
Teaching and Learning Strategies	<p>Lesson Opener:</p> <ul style="list-style-type: none"> • Open class with the beginning of class discussion questions below. Give students time to brainstorm. Have them write down answers and share them with the class. [5 -10 min] <p>Activities:</p> <ul style="list-style-type: none"> • Have students watch <i>The Internet</i> video, and complete the corresponding quiz. [5-10 min] • Students should read <i>Internet Censorship</i> and complete the <i>Internet Censorship Reflection</i>. [10-15 min] <ul style="list-style-type: none"> ◦ Teacher can have students complete the exercise in the code editor, and then have a discussion on the article. Teacher can also have students read the article as a class. ◦ For ELL and SPED students, consider creating a vocab list, or reading out loud with students so they can easily follow along. • Complete <i>The Right to Remain Anonymous</i> reading and the <i>Reflection</i>. [15 min] <ul style="list-style-type: none"> ◦ <i>Read and Share</i>: Have half of the class read the first article, and the other half of the room read the second. Then pair students who have read different articles together to

- discuss. Students then can complete the writing assignments together, using their collective knowledge on both assignments to better answer the questions.
- Have students watch *How the Internet Works* and complete the corresponding quiz. [10-15 min]
 - Because this is a long video, think about watching as a class, and pausing throughout to allow students to ask questions and take notes. Use this time to have students complete *Internet Protocols* on their computer while they watch with the rest of the class.

Lesson Closer:

- If there is time at the end of class, have students reflect and discuss their responses to the end of class discussion questions. [5-10 min]
 - Teacher can also assign readings or reflections as homework assignments or exit tickets.

Discussion Questions

Beginning of class:

- Explain what the Internet is in your own words.
 - *Answers will vary. Students may mention that it's a way of connecting people from around the world. Encourage them to explain how it does that.*
- List several activities that you depend on the internet to accomplish.
 - *Answers will vary! Encourage students to think about the applications on their phone that they use daily that wouldn't work without the internet.*

End of class:

- Imagine that the entire internet goes down for one week. What do you think would happen? What would we have to do differently?
 - *Answers will vary. Challenge students to think about all of the automated processes that would be disrupted as a result of the internet going down!*
- How did your initial impression of what the Internet is change after this lesson?
 - *Answers will vary.*
- Summarize how a computer in Asia can send information to a computer in South America via the internet.
 - *The exact details of how that happens may change for any given website and request, but essentially the information has to travel through cables that span the ocean from Asia to South America (or a series of cables that eventually connect the two). Even if the computer is using Wifi, the information eventually is connected through Fiber Optic cables from one location to the other.*

Resources/Handouts

Vocabulary

Term	Definition
URL	Stands for Uniform Resource Locator. You are locating a resource that exists somewhere on the internet.
Internet	A philosophy of making information and knowledge open and accessible to ALL. A network of networks built on open, agreed upon protocols.
Routing	The process of sending data between two computers on the internet. The data is sent through routers that determine the route.
Packets	Packets are the units of data that are sent over the network.

Modification: Advanced

Modification: Special Education

Modification: English Language Learners

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 - censorship, adhere, dubbed, blacklist, deployed, relevant, precedent, speculation, tariffs
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