

Name _____ Period _____

Skill 8.01 Exercise 1

What is the Internet?

How do you use the Internet? Think about your typical day. When are you using the Internet? For what purposes? What role does it have in your life?

Skill 8.02 Exercise 1

Define network topology.

Skill 8.03 Exercise 1

Identify what each acronym below represents

WAN

DCN

LAN

What type of network is the Internet?

Skill 8.04 Exercise 1

For each of the physical network connections, identify the type of signal it transmits, along with the advantages and disadvantages of each technology.

	Type of signal	Advantage	Disadvantage
Copper wires			
Wireless			
Fiber-optic			

Skill 8.05 Exercise 1

How many wires would be required to send the number 20

AP Computer Science Principles
Ticket Out the Door
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What if only 1 wire were available? How could you send the number 20?

Skill 8.06 Exercise 1

Navigate to the flashlight test: https://docs.google.com/presentation/d/1JxWSa791amkTUqyr-q9E0K4vNg_vk8pb/edit?usp=sharing&ouid=106299719430157487465&rtpof=true&sd=true

The flashlight binary signal test simulates a flashlight turning on and off. Let the letter B represents the off position and the letter A represents the on position. Play the slide show and watch the first test, then decide on the message being sent in terms of A and B

Test 1

Now watch the second test and decide on the message being sent,

Test 2

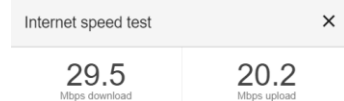
After seeing Test 2, how might you revise test 1? Indicate your revised version below.

Test 1 Revised

What additional information let you to revise your message?

Skill 8.06 Exercise 2

Below is a screen shot of the results of an Internet speed test on my home computer,



How many bits per second can I download? How many bits per second can I upload?

I want to download a video that is 1.5 GB... How long will it take?

Skill 8.06 Exercise 3

Josiah used a tool to measure how many bits he could transfer over his home connection to the Internet. What is the bandwidth?

Second	Bits transferred
1	900
2	800
3	700
4	1100
5	800

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Skill 8.06 Exercise 4
What is latency?
Navigate to http://ping-test.net/ and run the ping test. For which location did the ping test take the longest? The shortest?