

Networks, Addressing & How the Internet Works

Name: _____ Period: _____ Date: _____

Objectives

- Explain how computing devices work together in a network (CSN-1.A).
- Define path, routing, and bandwidth (CSN-1.A).
- Explain how the Internet works, including protocols and scalability (CSN-1.B).
- Describe how addressing (IP, DNS) lets devices find each other.

Directions: Answer each section. Use precise vocabulary.

Section 1: Devices, Systems, and Networks

Match the term to its meaning in your own words.

1. Define **computing device** and give two examples.

2. What is a **computer network**? How is it different from a single **computing system**?

3. True or False: a computer network is a type of computing system. Explain.

Section 2: Paths, Routing, and Bandwidth

4. What is a **path** between two devices on a network?

5. Define **routing**.

6. Define **bandwidth** and give the unit it is usually measured in.

7. Network A can send 50 megabits per second; Network B can send 200 megabits per second. Which has greater bandwidth, and what does that mean for a large download?

Section 3: How the Internet Works

8. The Internet is a network of interconnected networks that use standardized, open

_____.
9. What is a **protocol**?

10. Why does it matter that the Internet's protocols are **open** (nonproprietary)?

11. Define **scalability**. Why was it important that the Internet be designed to scale?

Section 4: Addressing: IP and DNS

12. What is an **IP address**, and what does it identify?

13. The **Domain Name System (DNS)** translates _____ into

_____.
14. When you type `example.com`, explain briefly what DNS does so your request reaches the right server.