

ICT Communications Essentials Lesson 1

Excerpt from Internet Addresses

- Discuss with students that it may seem like everything happens instantly on the Internet. But in reality, there is information traveling through virtual channels at all times.
- Compare and contrast the Internet to the postal service. The Internet relies on an addressing system, like the postal service, to send data to a computer at a certain destination.
- Demonstrate the purpose of an IP address, which is a number that uniquely identifies each computer. Show students the video "[The Internet Explained](#)" (YouTube video, 2 mins).
- Explain that all IP addresses used on the Internet are combinations of numbers, rather than names.
- Explain that a [domain name](#) is the text version of an IP address.
 - Example: When you use a mobile phone and select "mom's home phone" from your address book, you are actually dialing a combination of numbers. This is how domain names work with webpages.
- Compare the domain name for the Google website to its IP address, shown in Figure 1-1.

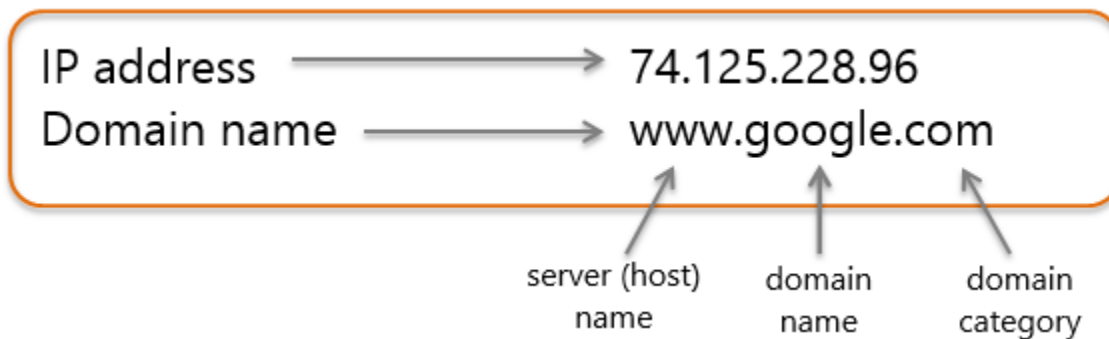


Figure 1-1 Comparison of domain names & IP addresses

- Explain that when you specify a domain name, a DNS server translates the domain name to its related IP address so that information is transmitted to the correct computer. Show students the video "[What Is an IP Address, a DNS and a URL, and How Do They Work?](#)" (YouTube video, 1 min).
- Explain that the right-side component of a domain name categorizes domains into groups by company (.com), educational institution (.edu), organization (.org) or country (for example, .ca). These categories are called top-level domains (TLDs).
- Indicate that each domain name is unique and registered with [the Internet Corporation for Assigned Names and Numbers \(ICANN\)](#).

Explain that when a name (for example, google) within a domain category (for example, .com) is assigned, no other organization or individual can use that name within that category.

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Domain Names Scavenger Hunt

Levels - ALL



In this activity, you will use a web browser to find the domain names assigned to various IP addresses.

1. Open a Web browser.
2. In the browser address bar, enter an IP address listed in the table below.
3. Write the resulting server, domain name and domain category in the table.
4. Complete the entries for all IP addresses listed in the table.

IP Address	Server	Domain Name	Domain Category
74.125.228.96	<i>www.</i>	<i>google</i>	<i>.com</i>
173.252.110.27			
54.163.108.69			
74.217.81.233			
199.181.132.250			
206.220.175.217			
65.49.73.21			