

# What is the Internet?

## *A Global Network of Networks*

Learn more about this topic! Each section gives more detail on one of the lyrics from the song. Read each section, and then respond by answering the question or taking notes on key ideas.

**Lyric: Examples include a computer lab at school Or computers in an office, yeah, that's true.**

Notes



A computer lab is an example of a computer network.

The internet is often called a network of networks. What does that mean? Well, in computer terms, a "network" is two or more computers that can communicate. So computers on the internet can communicate. And that global network connects smaller networks, letting all the

computers on those networks communicate. The networks that make up the internet are different sizes. A Local Area Network, or LAN, is a private network. It connects computers in small areas, like an office or building. A computer lab at school is a LAN. A Wide Area Network, or WAN, connects computers in more than one geographic area. A WAN is made up of multiple LANs. A WAN might include a city block or a state.

**Lyric: The internet is a worldwide network**

Notes



The World Wide Web contains all kinds of images, documents, and videos.

The internet lets people communicate by sending emails, instant messaging, video chatting and more. It also lets people learn and find information on something called the World Wide Web. The web is a system of resources that are linked

together. It includes images, documents, videos and other kinds of files. Hyperlinks allow a person to move between these files. Though some people confuse them, the web isn't the same as the internet itself. In addition to the web, the internet supports many other applications.

**Lyric: They connect networks across the hemispheres.**

Notes



The internet connects people across the globe.

Despite its wide use, there are a lot of misconceptions about the internet. Many people don't understand how it works. While there are underground wires that form important internet connections, the internet itself is not a

physical place. It's not a chip inside of a computer either. It's a system that facilitates information sharing and connectivity across the globe. The internet consists of networks that are interconnected. The networks also use standardized protocols. A protocol is a system of rules. The protocols used by computers on the internet let them communicate.

**Lyric: You have the whole world right in front of you.**

Notes



When you type a URL into your browser and hit enter, you send a request.

To connect to the internet, a person needs an internet service provider, or ISP. An ISP is a company that provides access to the internet for a fee. It's sort of like a telephone or electric company.

When a person wants to see a particular website, they type the URL into a browser. They hit enter to make the request, which tells their ISP what they are looking for. The request then moves through the network until it arrives at the server where that website is hosted. Then a response is sent back to them.

**Lyric: The internet lets everyone connect,**

Notes



The internet was developed to be more secure than telephones in the 1960s.

The internet is a relatively new system. In the 1950s, when there was no internet, tensions were high between the US and the Soviet Union. Many experts in the US worried that an attack on the telephone system might destroy communication in

the country. There was a pressing need for a communication system that could better survive an attack. In this tense time, scientists came up with the ideas for the internet. Messages would be broken up into smaller pieces and sent along different paths. They'd be reassembled upon arrival. If something happened to one path, there would be others available. This early internet was called ARPAnet. The first message was sent from UCLA to Stanford on ARPAnet in 1969.

Lyric: You just need to know the domain name to gain access.

Notes



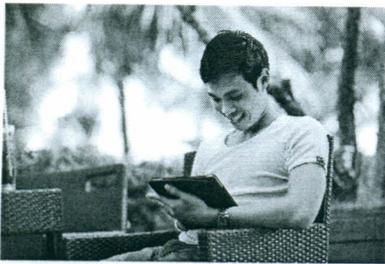
Thanks to the DNS, you don't need to know an IP address to access a website.

How do you access a website like Flocabulary? Partly with the help of the DNS. The DNS, or domain name system, links a website's name to an IP address. It's the reason you don't have to memorize random numbers to get on

Flocabulary's website. All you need is the domain: flocabulary.com. The DNS is like a large phone book. Rather than linking people with their phone numbers, it links websites and IP addresses.

Lyric: The internet lets everyone connect,

Notes



The internet helps people connect.

The size of the internet is growing. There are billions of devices connected to the internet right now, and more are connecting all the time. Not only do computers access it, but phones, watches and a range of other "smart" devices can now connect, too. Some

people think that in the future, all of these devices will communicate with one another, creating an "internet of things." Imagine if a person's car could access her calendar, for example. There's also the possibility of using the internet of things to build city transportation that reduces waste. The internet of things holds tremendous potential. Of course, it also raises a lot of security questions that will need to be figured out along the way.