

## Lesson 2.2: What is the internet?

Recommendation: 50 min

### Objectives

In this lesson, students will:

- ❖ Reflect on the activities they do using the internet
- ❖ Learn about some of the physical components that make the internet network possible
- ❖ Be able to explain what a network is

### Agenda

- |                                     |         |
|-------------------------------------|---------|
| 1. Opening                          | 10 mins |
| 2. The things we do on the internet | 15 mins |
| 3. My internet friends              | 10 mins |
| 4. Find the network path            | 10 mins |
| 5. Wrap-Up and Reflections          | 5 mins  |

### Preparation

- Print out Activity 2.2.A (1 for each student or a pair of students)
- Print out of Activity 2.2.B (1 for each student)
- Optional: print Appendix A as a poster for your class

### Resources & Links

- <https://tinyurl.com/WhatsInternetCodeOrg>
- <https://tinyurl.com/InternetWiresCables>
- <https://tinyurl.com/Episode-23-Internet>

Credits:



## 1. Opening



Ask students to close their eyes and think about the internet. Let them imagine and ask them to share what they saw.

Here are some answers you might expect:

- Wires
- My computer, my phone
- YouTube
- Wifi signal
- Cables

What do they think the internet is? Continue prompting them using the following:

- Do you think the internet is a place?
- Who controls the internet?
- Is it made of pictures and videos or machines and wires?
- How many times have you gone onto the internet today?



Let's watch this video: <https://tinyurl.com/YourInternetHelloRuby>

## 2. Student activity: Activity 2.2.A: The things you do on the internet

In this section, the students will reflect on what the internet allows them to do.



Either print Activity 2.2.A for each student so they can reflect on their own and circle the activities the internet allows them to do. They might not select all activities that the internet enables others to do, only the ones that are relevant to them.

You can also pre-cut each activity and make cards that students can use in pairs to discuss and share their ideas.

Ask a student to describe the image by using a verb like “watching a movie” or “Taking a shower” as opposed to just a noun. Then ask them if they use the internet to perform that action.

Some items might lead to great discussion points as the image might represent different things to different students. For example, the birthday cake could be interpreted as making a birthday cake, blowing your candles, or sending a birthday card or a birthday invitation.

When sharing in class, just pick a few examples and ask the student to explain why they circle an activity.

### 3. My internet friends



While we do not always see the internet as a whole with our own eyes, the internet is made of a lot of physical things that we can spot sometimes

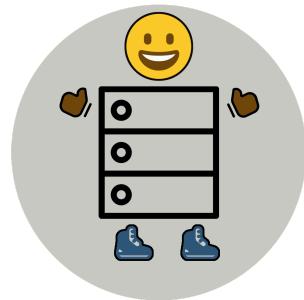
Have you ever seen a laptop or a cell phone? These devices if they are connected to the internet are part of it

The internet is a network of connected devices like computers. A network is a group of interconnected people or things. Here we are going to talk about the interconnected things that make the internet. (use [the slides](#) to show real pictures of the following connected internet devices)



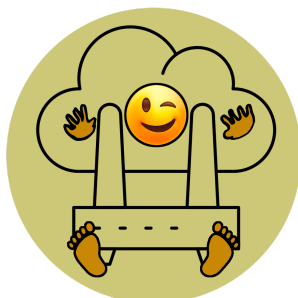
#### Client: (slide 4)

Our computing devices like laptop computers, tablets, and even phones are part of the internet. They are called the clients. We use them every day to send messages, listen to music, even take pictures and post them on websites. Personal computers usually have a screen that we can interact with, a keyboard to type, and speakers.



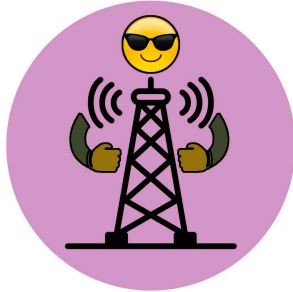
#### Servers: (slide 5)

Servers are big machines that are like computers but do not have a screen or keyboard attached to them. They live inside companies and are used to store information in large quantities. Think of them as machines **serv**ing the clients, like in a restaurant. But instead of delivering food, they provide information.



#### Routers: (slide 7)

Routers are devices that help the information navigate to the correct destination on the internet. For example, if your cell phone is connected to a WIFI (which is a connection without wires), but retrieves information that is stored miles away from you, the router will help connect from WIFI to other wired networks as you cannot use WIFI over a long distance.



**Internet Tower:** (slide 8)

Internet towers, also known as cell towers, are big large antennas that work on electricity and help devices around them to receive WIFI signals.

**4. Student Activity: 2.2.B Find a path on the network**

Explain to students that a network is a group of interconnected people or things. Our internet friends are things that can be connected, forming a network. The internet is just a very very big **network**.



Distribute the Activity 2.2.B to students. In this activity, students will navigate a network to find a path between 2 endpoints. They can use one color for one path and another color for a different path if they are finished early. They draw the path on top of the dotted lines.

**5. Wrap-Up and Reflections**



**Additional activities, discussion points**

Read a few chapters of the book "[Expedition to the internet](#)" from the HelloRuby collection

Is the internet always safe?

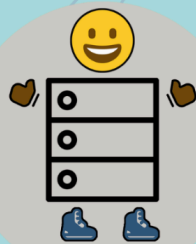
How many times have you used the internet today?

Try to spot the internet tower when you are driving around. Look up, they are tall!

## Appendix A

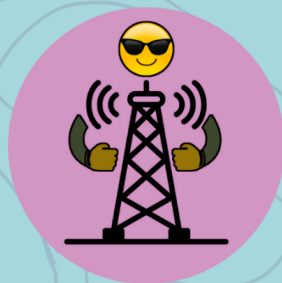
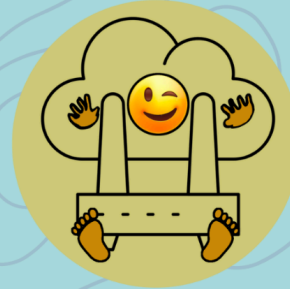
# My Internet Friends

Client 1



2 Server

Router 3

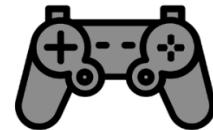
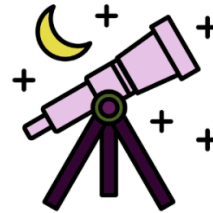


4 Tower

## Student Activity 2.2.A: The things you do on the internet

Your Name(s): \_\_\_\_\_

Look at the activities below and circle the ones that you do using the internet



## Student Activity 2.2.B: Find a path on the network

Your Name: \_\_\_\_\_

Kody would like to send a message to his sister Firmware. Select a path on the network to link Kody to Firmware. Use a marker to draw your path on top of the dotted line.

