

Journey Through a Computing System

You have been learning how the Internet works. How does a computer request information from a website? How does data travel over a network? What are the protocols that are used? This information has been covered in:

- Code.org video set and guided notes
- [CS Field Guide](#)
- [Khan Academy - APCSP](#)
- Classroom activities

This project is designed to show me that you understand how the Internet works. You will create a digital artifact in which you explain in detail the process of data transfer from your computer to your selected innovations' website and back.

Required content:

- DNS
- Viewing websites: URL > REQUEST > RESPOND > RENDER
- Physical connections to the internet (ethernet, Wi-Fi, fiberoptic)
- HTTP & HTML
- dynamic routing
- IP address
- Packet switching (packets, metadata, protocols)
- TCP / IP and UDP
- Concepts of fault tolerance and redundancy
- Concept of open system and open protocols

Format of Assignment: You can choose HOW you want to show me that you understand the Internet. Options can include:

- Slide presentation (Do not simply make a slide for each of the above bulleted topics. Remember, your slideshow should explain the flow of the entire process from your computer to a website and back.)
- Video
- Game creation (use Scratch to walk through a demonstration of the Internet)
- Animated video
- Essay
- Other ideas? I am open to new and creative things...just get it approved by me first.