

Purpose: How do we use 1's and 0's to specify the address of a receiver and a sender when we send an internet message?

The lesson mimics a real problem that designers of the internet had to solve. Many computers are connected together by networks. So if a computer sends some bits out, those bits pass through many computers. How does a computer know who those bits are for? If a response is necessary, how does it send it back? This is a complicated question, but the first part of the answer is that you need an addressing system, and some kind of fixed structure for messages that everyone agrees on (a protocol) so messages can be interpreted properly. (We'll get to routing later).

Vocabulary

- **IP Address** - A number assigned to any item that is connected to the Internet.
- **Packets** - Small chunks of information that have been carefully formed from larger chunks of information.
- **Protocol** - A set of rules governing the exchange or transmission of data between devices.