

Directions:

- 1) Create your own DNS table, similar to what is shown here.
- 2) Have the class help you fill in the blank spots in the table. Pick your favorite URLs and find their IP addresses using a site like www.getip.com.
- 3) Divide into groups of 3 to 5.
- 4) Assign each group an IP address from the table, and each person in the group a position:
 - * The Message Writer
 - * The Internet
 - * The Server (carries the IP Address)
 - * The Return Internet (Optional)
 - * The Message Receiver (Optional)
- 5) Each group will draw an IP address Card and a Delivery Card to find out where their message is going and what their method of message delivery (Wi-Fi, Cable/DSL, or Fiber Optic Cable) will be.
- 6) The Message Writer will craft a note to send to the server.
- 7) The Internet will rip the message up into small pieces called packets, then deliver each packet one at a time to the Server with the IP address that was drawn from the IP address Card stack.
- 8) The Server will make sure that the message arrives in order, then will send each packet off one at a time with the Return Internet (can be the same person or different person than the original Internet).
- 9) The Return Internet will deliver each piece back to the Message Receiver (can be the same person or different person than the Message Writer) and put it back together.
- 10) The Message Receiver will wait for all of the pieces to arrive, then read the message to be sure it arrived correctly!

Rules:

- 1) The Internet must rip the message into exactly four packets.
- 2) If the Internet drops a packet, they have to pick it up and go back to the start to deliver it again.
- 3) The server has to wait for all of the message pieces to arrive before it can begin to send the message along.

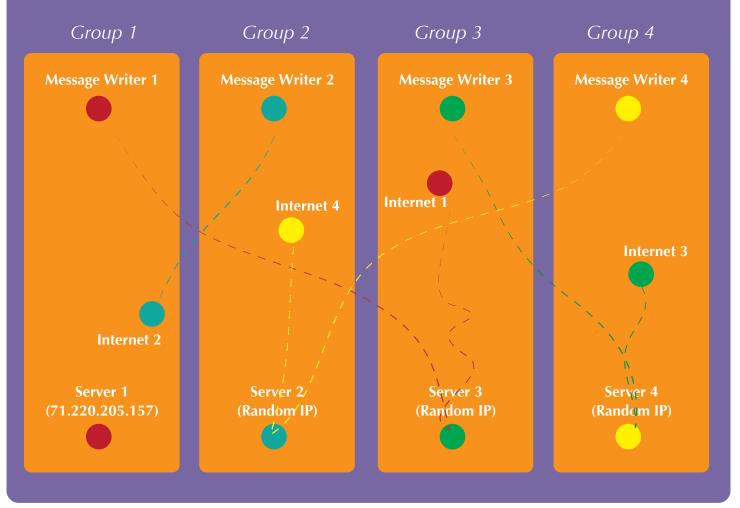
How the Internet Does what it Does

C O D E

Sample of DNS Table

#	URL	IP ADDRESS
1	www.code.org	
2		
3		
4		
5		
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Sample of Classroom Group Layout During Game Play



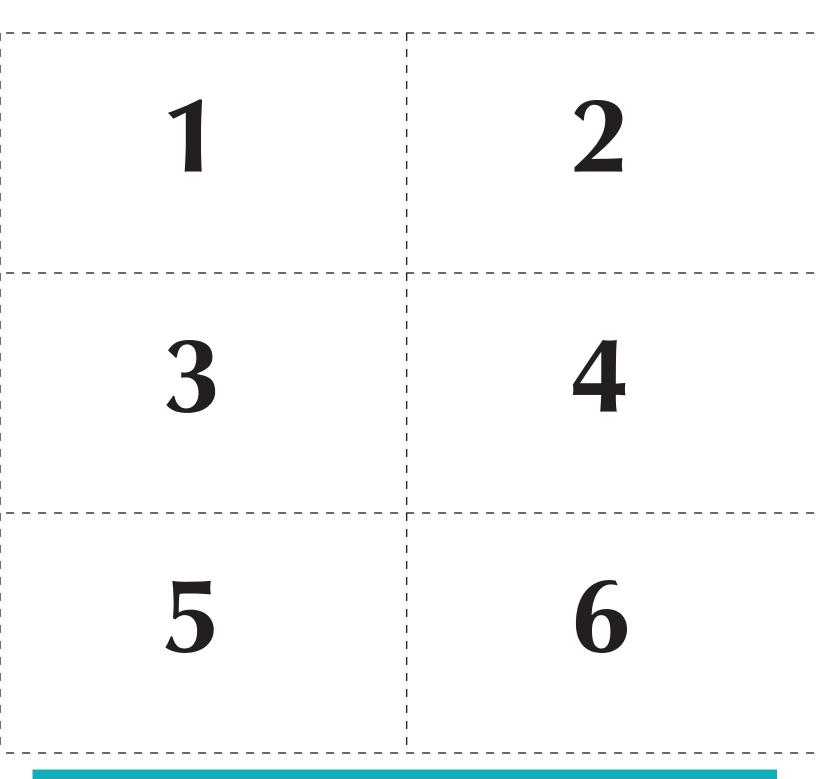
Revision 150517.1a







These cards correlate with numbered entries in the DNS Table. (You should make one distinct row for each group.)



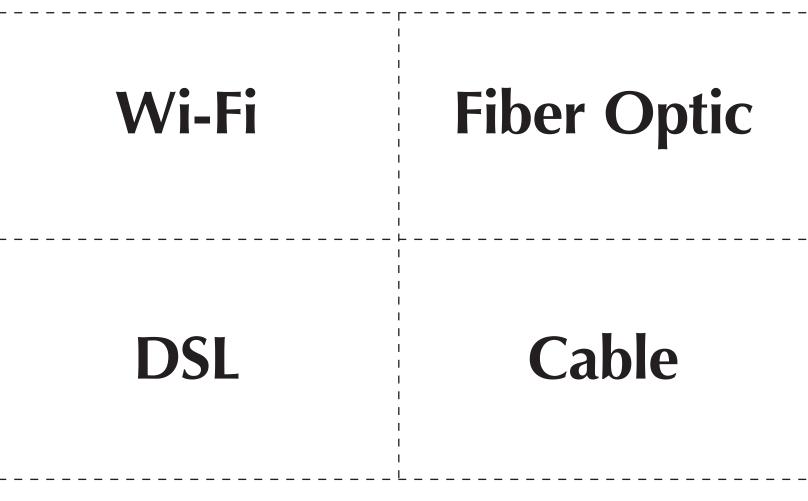
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These cards correlate with different methods of delivering messages over the Internet. (Print enough to have one card for each group.)



Types:

- Wi-Fi: Convenient, but spotty. Wi-Fi doesn't require cables, but since the signal bounces all over the place, packets can get lost pretty easily. Simulation: Internet must carry each packet on their shoulder (no hands).
- 2) Cable/DSL: Fairly good at delivering messages, but you must be connected to a wire. Simulation: Internet must carry each packet on the back of one hand and must keep the other hand touching a wall, desk, chair or the floor at all times.
- 3) Fiber Optic Cable: The best at delivering messages, but you must be connected to a wire. Simulation: Internet can carry packets in hand, but must keep the other hand touching a wall, desk, chair or the floor at all times.