



LESSON PLAN

Level: Grades 2 to 5
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Introducing the Internet: Messages, Envelopes, Addresses

Overview

This lesson helps students understand how electronic messages are delivered over the Internet by introducing them to the concept of dynamic re-routing. Using a "web" composed of photocopies of computers and yarn, students relay segments of messages to the teacher's "computer," where the segments are put together into a coherent whole. Students also discuss the importance of using correct spelling and URLs and discuss online rules for safe Internet use.

Learning Outcomes

At the end of this lesson, students should be able to:

- describe how messages travel over an open electronic communications network
- understand the open nature of electronic correspondence

Preparation and Materials

This lesson entails some prior preparation.

- Photocopy the following:
 - *The Internet: Cyberhistory 101* teaching backgrounder
 - Pictures of a computer (enough for the class and teacher)
- *Online Rules*
- Have on hand yarn, paper and pens, envelopes

The Lesson

Before class, tape photocopies of a picture of a computer to the floor in different places in the room. Make sure there is a picture for each child participating in the exercise, plus one for the teacher. Connect each picture to at least two other pictures, using masking tape or string, until you've created a web across the floor.

Start the activity by having the children play "broken telephone," starting in a large circle. Whisper a message into the ear of one child, and have him or her whisper it to a neighbour. Each child whispers it in the ear of a neighbour until the message comes to the last child in the circle. That child then says the message out loud. Invariably, the message has changed along the way.



Tell the children the Internet was designed to let computers talk to each other quickly and at the same time without getting the message mixed up. Introduce the concept of "dynamic re-routing" (how a computer sending a message over the Internet breaks the message into parts, puts each part into a separate envelope and sends the envelopes out over different routes to their destination. The computer receiving the message then puts the message back together so the person at the other end can read it.)

Then take a piece of paper and write the word "COMPUTER" in large letters. Do not let the children see what the message is.

- Cut the message into eight pieces, with one letter on each piece.
- Then number the pieces so C is number 1, O is number 2, etc.
- Have the children make a web by standing at the different "computers" you've taped around the room.
- The children must send the message to the teacher's computer over the web, by taking each piece along a different route over the web.
- To begin, give each piece of paper to a different child and tell him or her to send the message to the teacher's "computer." (They can't walk straight to the teacher's computer. They have to hand their piece to the nearest child along the web, who then hands it to another child along the web, who then hands it to another child, until all eight pieces of the message reach the teacher's computer.)
- All eight pieces of paper are being delivered at the same time. Once they arrive at the teacher's computer, have different children read the letters, as well as the numbers, on each piece, and have the class work together to "reconstruct" the message on the black board. Ask if any of the children had read their part of the message while they were delivering it. Reinforce how easy it is to read someone else's "mail" on the Internet.

Using the blackboard, have the children write the address of their school. Talk about how a real letter is delivered, and how each part of the address helps the postal service find the right destination. Reinforce that in the real world, a misspelled name or the wrong postal code may slow down delivery, but someone will still figure out where to send it. Introduce the concept of web addresses, or Uniform Resource Locators ("URLs"). Reinforce how computers need the exact address, and can't figure out the difference between "Street" and "St."

This is a good opportunity to remind students of the importance of using correct spelling and correct URLs when they are searching or surfing on the Web. Write on the board: "You are smarter than your computer" and the following "Spell Check" poem, (attributed to John Martin, of Santa Rosa Jr. College):

I have a Spelling Checker. It came with my PC. It clearly marks four my revue Mistakes I cannot sea.

I've run this poem threw it. I'm sure your pleased two nolts letter perfect in its weigh, My Checker tolled me sew.

Have the students identify the words that are incorrect in this poem. Ask them:

- Why do you need to be careful about using correct spelling and proper words when you're on the Internet? *(On the Internet, there are unscrupulous people who will do anything they can to get people to visit their websites. Their most common trick is to use words that are misspelled versions of popular things and online destinations that kids might be looking for. (And it works! In MediaSmarts' 2001 survey of Canadian kids and teens, six out of ten young people ended up on an inappropriate website by accidentally typing in the wrong address or searching for something else.)*



- Read the *Online Rules* and discuss with students.

Where to go from here

The following activity can be used to reinforce the skills learned in this lesson.

If computers are available, assign students, individually or in groups of three to four (with at least one strong reader in each group) time on the computer to play MediaSmarts' computer-animated game *Privacy Playground: The Adventures of the Three Cyber-Pigs* (<http://mediasmarts.ca/game/privacy-playground-first-adventure-three-cyberpigs>). This game reinforces consumer and safe surfing skills and demonstrates how easily online communications can be intercepted. For ideas on how to use *Privacy Playground* in the classroom, see the Teacher's Guide.



Online Rules

- I will not give out any personal information online without my parents' permission. This includes my name, phone number, address, e-mail, location of my school, my parents' work address/telephone numbers, credit card number information, and my picture.
- When using the Internet, I will always use a pretend name or nickname that doesn't reveal anything about me.
- When creating a password, I will make one up that is hard to guess but easy for me to remember. To avoid having it stolen, I will never reveal it to anyone (except my parents) - not even my best friend. I will not respond to any message that makes me uncomfortable. I will show an adult right away.
- I will NOT arrange to meet a friend I have made on the Internet unless one of my parents has been informed and will be present. I will not open e-mail, files, links, pictures or games from people that I don't know or trust. I will always ask an adult first.
- I will practice responsible online behaviour:
 - I will not post or send insulting or rude messages or threats to anyone online.
 - I will not take words, pictures or sounds from someone else's website without their permission.
 - I will not disable any filtering software my parents have put on the computer
 - I will not make any online purchases without my parents' permission.
- I will not believe everything I read on the Internet. When doing online research, I will always check the source of the information and confirm it with a parent, teacher or librarian.

