Daily Lesson Plans

Instructional Days: 1-2

Topic Description: What is a computer? In this lesson the concepts of computer and computing are explored through examples of each.

Objectives:
The student will be able to:

- Explain and give examples of the concepts of computer and computing.

Outline of the Lesson:

- Journal Entry. (10 minutes)
- Exploring computers (60 minutes)
- Classification of computing groups (10 minutes)
- Definition of the terms computer and computing (10 minutes)
- Demo of Computer Buying Project Assignment (20 minutes)

Student Activities:

- Complete journal entry.
- Groups of students create lists of their ideas of what a computer is.
- Groups do presentations.
- Participate in discussion of classification groups and definition of computer and computing.

Teaching/Learning Strategies:

- Journal Entry: How many computers are in the room?
  - Have students write responses to the question in their journals and then share the response with their elbow partner.
  - Ask a few student pairs to share their responses.
- Exploring computers
  - Some students may have counted only the desktop computers in the room while others may have recognized that there are other items that are computers as well.
  - Divide students into groups of 3 or 4. Ask the students to discuss additional examples of computers (or things containing computers). Have students write their examples on post-its and add them to a large chart at the front of the room or have groups make a list on flipchart paper and tape their list somewhere in the classroom. (Examples of computers include: Macintosh, Windows PC, cell phone, mp3 player, most appliances (television, coffee maker,
washer, dishwasher, etc.), cars, medical equipment, planes, watches, cash registers, ATMs, traffic lights, scoreboards, humans, and calculators.)

- Have student groups share their ideas. After each presentation, give the other students an opportunity to suggest why any particular example seems not to be a computer (or is not obviously a computer). If necessary, ask questions to draw out the student questions and responses. (For example, if the student says “dishwasher,” you might ask, “why is a dishwasher a computer.”)

- Have a brief discussion of the power of cell phones. Mention collection of data as a foreshadowing of unit 5.

- Classification of computing groups
  - Ask students to suggest possible classifications for the items on the list; create a new list with the various items listed under a group classification.

- Definition of the terms computer and computing.
  - Revisit the question “What is a computer?” and ask the possibly more pertinent question, “What is computing?”
  - Have the students use their list of “computers” and their classifications to help formalize their answers.
  - Note that there is no “correct” answer. These definitions will be revisited and possibly modified throughout the course of the unit.
  - Reinforce the idea of different types of computers and classifications by reviewing the lists and groups created by the students.

- Computer Buying Project Assignment
  - Each student will interview a family member or friend to find out what features that person would like to have if they were buying a new personal computer.
  - Demonstrate the interview process by asking a student to participate in an interview and ask them questions such as: What will be the uses of the computer? What are the space constraints? What is the price range? Etc. You may wish to provide students with a specific list of interview questions.

Resources:

- No additional resources needed