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 do you have in your own home?
  + 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 record their examples on paper or on a computer, whichever is accessible to them. (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. In a camp situation, students can ask a pre-selected person such as a grad student, staff member, etc who may act out different scenarios and needs such as a field biologist or computer gamer
  + 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