K-12	Basic Infosec by Diane Smith

Learner Analysis

General Characteristics:

1. Approximate age
   - Students are 11-13
   - Students are currently sixth graders

2. Education and ability levels
   - Reading level ranges from 4th to 8th grade levels

3. Behavior considerations
   - Wide range of ability within each class
   - Average attention span of 15 to 20 minutes
   - If not involved directly, most students will quickly lose interest, and may become disruptive

4. Previous experience with the topic
   - Students have little, if any, experience with Information Security

5. Attitudes toward content
   - Students tend to get excited about using computers
   - Some are apprehensive about their ability to use a computer correctly

6. Attitudes toward content provider
   - Students get along with and respect the teacher
   - Most students are willing to try what the teacher suggests

Entry Competencies:

Prior to the start of instruction, the students should be able to:
1. Read at a 4th grade level
2. Know basic procedure for use of a computer at school
   - Start up/Shut down
   - Log on/Log off school network
   - How to launch Netscape
   - How to save information to the network with their name

Successful Teaching Strategies

- Most students enjoy working in groups
- Some students want specific instructions on how to complete a project or activity
- Others need to jump right in; they need to "experience" their learning
- Lecturing is often necessary, but should be kept brief-no longer than 10 to 15 minutes at a time
- Students enjoy sharing their thoughts and what they have learned
- Immediate feedback is always helpful

Strategies that can Hinder Learning:

- Too much sitting, listening, and note-taking
- Do not always do everything in groups
- Do not give long difficult assignments without breaking them into smaller segments

Objectives

1. The sixth grade students will be able to identify similarities between home security and computer (or information) security.

2. After a classroom discussion about what "safe" passwords are, and the importance of using them, the sixth grade student will be able to create their own secure password, using all of the guidelines discussed in class.

3. During a lab setting, the sixth grade students will be able to set up a separate folder for each "core subject" on the school's network server.

4. After completing the process of making up a secure password, and creating a folder for each of their subjects on the network; the sixth grade students will be able to describe how the use of these folders will help them in a personal way and in the classroom. They will do this by writing a journal entry.

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Learning Process

Preview the Materials
The teacher will make sure that all materials are available and in working order. The materials needed include:

1. Handout 10 recommended guidelines for choosing a SMART password
2. PowerPoint presentation on creating folders

Preparing the Materials
The teacher will put a brief outline on the chalkboard

The teacher will make enough copies of the handout for each student. (Guidelines for choosing a password)

The teacher will prepare the PowerPoint presentation on folders

The teacher will gather together 5 folders and a variety of papers from each of the core subjects

The teacher will create a profile of an imaginary student to give her students practice on creating their own

Prepare the Learners
The teacher will talk about why these two aspects of computer use are very important the day before the actual lesson is to be taught

The teacher will put an outline on the board in the classroom and in the computer lab to help ease some students stress level

The teacher will provide an overview of the lesson before starting

The teacher will give each student a copy of the handout about choosing SMART passwords and the PowerPoint presentation on folders

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Participation Checklist

Objective #	Activity	Learner Participation
1	Write the word "security" on the chalkboard. As an entire group create a concept map on what this word means and any topics that might be included. (4 min.)	Requires learner to input ideas to make the concept map
1	Large group activity, divide the class into two groups; one brainstorming ways to keep safe at home, and the other why computers need to be kept safe and how. (4 min.)	Requires participation in a group setting with sharing of ideas
1	Have groups come back together and put ideas on the board. Each group should be able to explain the choices made. Allow members of other groups to add to lists also. (5 min.)	Learner input in order to put information on board and explain self
1	With that importance of security fresh in their minds, the teacher will then begin to talk about "smart" passwords. Brainstorming with the class, list on the board reasons why passwords are important to them. Write responses on board. (4 min.)	Learner input in order to create information on board and use of discussion
2	As a class, read over the 10 guidelines for selecting a "smart" password. (2 min.)	Requires the learner to read aloud the information
2	In small groups, students will discuss why they think each guideline might be important. Put ideas on board and then pass out sample student activity. When finished, ask for volunteers to put theirs on the board and explain why they chose the ones they did. (7 min.)	Requires active participation in small group activity and class discussion
2	Students will then take some time to make up their own passwords and turn in to give to technology director. (7 min.)	Requires individual thought process to choose their password
3	In front of class, the teacher will toss the "homework papers" in a pile at the front of the room, then ask several students to find different assignments. (3 min.)	Requires active participation by several students

3	After the confusion of trying to find the appropriate papers, they are then separated into each subject area by students to find a particular paper, and hopefully they will see how much easier it is to have things organized. (5 min.)	Requires active participation by several students while others are observing the differences
3	Pass out the handout on how to set up a "folder" on the school server. Read and discuss this handout while I am also demonstrating it on the laptop and projector. (5 min.)	Requires learner to read material and actively listen during demonstration time
3	The student will create a folder for each of the core subjects under their name on the server. They will then log off and log back on and attempt to successfully find the folders they have created. (20 min.)	Requires individual productivity and responsibility in the making of their own folders
1,2,3	The students will finish this lesson with a self-reflection in their journal. They will be asked to write about how they think the use of the folders will help them in a personal way and in the classroom. They should also tell about why security is important to them in this world of technology. (7 min.)	Requires individual thoughts and learning process during reflection time