



Learner Analysis

1. General Characteristics:

Approximate Age: Students are fifth grade students in my classroom at Battle Ground Elementary School. Most are 10-11 years of age.

Education and Ability Levels: My fifth grade students are at varying levels of ability. Included are several “gifted” children as well as “resource” children. It would be difficult to select an “average” range when so many are so far away from that.

Behavior Considerations: This class consists of lots of good, mature girls that work hard to do well and please others. There is also the group of boys that project a deep level of immaturity and have working hard low on their priority list. The behavior considerations are the same as with any class...it's the degree of preparation that's needed with the students before any lesson that's greatly increased.

Previous Experience with the Topic: My class has little to no experience with Information Security.

Attitudes Toward Content: Students love to work with technology in the classroom, but are much more focused on the “playing” aspect instead of the “learning” one. It will be a new process for them to be learning about securing the computer and its technology and not just how to utilize a certain program or the Internet.

Attitudes Toward the “Content Provider”: I'd hate to think that I'm viewed as a “content provider”. That goes against everything that makes me a professional. Anyone with a brain can provide content! As a teacher, the students show me respect. Our rapport in the classroom is one that enables small groups and large groups to work effectively. Students show respect to one another in our “We're a family...” atmosphere.

2. Entry Competencies: Before being able to grasp the objectives effectively, each student in my class must be able to work our basic lab computers. As always, the reading levels of the students must be considered and the lesson adapted. The reverse cannot be done. A mastery of common computer, keyboard, and Internet terms would be extremely helpful for students to meet the objectives of the lesson.

3. Learning Styles: As with any group, each of the learning styles is present. Effort must be made to reach each student by considering the way he/she learns best as an individual. For the whole class, the same basic, good, intermediate teaching strategies apply. For this specific class, one must continue to consider their lower maturity level. They enjoy working in partners or small groups, but specific expectations must be discussed and recognition of achieving or failing to meet them must be emphasized throughout the process. They learn best by changing any teacher-centered portion of a lesson into a creation of songs, rhymes, games, poems, projects, or dramas. Students enjoy having to opportunity to debate their ideas in class and having a rubric to guide them through assignments. The attention span of the students decrease as the day goes on so consideration must be made as to when lessons will be taught and how they should be approached.

Objectives

1. Through the use of an analogy, the fifth grade students will be able to compare/contrast a virus and worm of the “living” world to the virus and worm of cyberspace by creating a neat and accurate Venn diagram in their “Dr. Detective Security Notebook.”
2. During an in-class demonstration, students in the fifth grade class will demonstrate an analysis of the risks of opening unknown files, e-mails, or programs by asking questions about specific envelopes laid out for them before choosing one to take, open, and complete and by writing out a reflection of the activity in their Detective Notebook.
3. During a small-group card game activity, the fifth graders will demonstrate a comprehension of the rewards of being a good “Dr. Detective” when working in cyber-space where the students earn points by turning over safe cards and using points to seek clues as to which cards are viruses.
4. Students in the fifth grade class will write out a “Detective Log” describing the tools needed to protect themselves from having to deal with viruses or worms in the real world of computer security and drawing an illustration of themselves as the Detective with each tool and an important saying for all to remember.



After sketching out goals and ideas, writing the “sloppy copy” for each objective, and then finalizing the wording of each, I do find that it has helped me to organize my plans for the project. It’s a fairly simple one or two day plan that involves students in whole-class instruction, small-groups, activities, and creating a project. It seems that one of the most difficult parts in teaching is finalizing and refining the objectives of each lesson; I’m looking forward to getting past that and bringing this plan to life.

Learning Process

1. Preview the Materials:

- The teacher will preview all materials prior to instruction. This includes:
 - Virus/Worm informational handout
 - “Unknown Files” assimilation rules/expectations
 - Safe & Danger Card game rules
 - List of general tools one may use to protect oneself from viruses/worms (Ways to Protect sheet)

2. Prepare the Materials

- The teacher will make an outline of the lesson plan. This outline will also be written on the board as an “Agenda” for the students.
- The teacher will print out an appropriate number of handouts (Viruses & Worms) and a transparency.
- The teacher will prepare the materials so the students can construct the Dr. Detective Notebooks the day before.
- The teacher will prepare the set of “Unknown Files Envelopes.”
- The teacher will prepare 6 sets of cards for the Safe & Danger Card game.
- The teacher will create a detective outline to be copied on copy paper for each student.

3. Prepare the Environment

- The teacher will ensure the overhead projector is ready to use.
- The agenda for the lesson will be written on the board.
- Arrangement of the student desks will be up to the teacher, as any arrangement will work.
- The teacher will have in mind a good way to divide the students into six groups.

4. Prepare the Learners

- The teacher will point out the written agenda on the board.
- The teacher will provide an overview of the lesson step by step prior to its start.
- The teacher will provide the student with an individual copy of the handout and his/her Dr. Detective Notebooks.
- The teacher will provide a brief overview of the purpose of all activities prior to their start.

5. Provide the Learning Experience

Step 1.	Write the words “virus” and “worm” on the overhead projector. As a whole group, create a list of characteristics that define each. (6m.)
Step 2.	Pass out the “Computer Virus/Worm” informational handout and read together as a whole group. (10m.)
Step 3.	Introduce the “Dr. Detective Security Notebook” and allow students ten minutes to construct a Venn diagram comparing/contrasting the virus/worm of the real world with that of the comp. world. (20m.)
Step 4.	With the whole group, introduce the thirty various envelopes after spreading them across a table at the front of the room. Point out the unique characteristics of each and what’s offered inside. (10m.)
Step 5.	Allow students to come up one at a time and select an envelope...and then following the instructions inside. As students begin to ask questions about various envelopes, offer hints or “research news” about their proposed pick. (30m.)
Step 6.	Have students work in pairs as they write an entry in their Detective Notebooks about the activity and its connection to opening unknown “envelopes” online. Allow volunteers to share with the whole group. (20m.)
Step 7.	Introduce the game of “Safe & Danger” and demonstrate for the whole group. Students try to turn over “safe” cards by guessing/buying clues and earning points. Be sure students understand that it costs points to get a clue as to which cards may be safe...they may “buy” clues or not. When buying a clue, first draw a “cost” card and then a clue card. Students start with 50 points. Each “danger” card costs the player half of his/her points...a “safe” card earns 50 points. Play in small groups of 3-4. (35m.)
Step 8.	Come back together as a whole group and allow students to share what strategies worked best (or worst) for them. (10m.)
Step 9.	Write out a list of connections between playing the “Safe & Danger” game with the cards and the safe and danger game when using the Internet. Have students write out the list in their notebooks. (15m.)
Step 10.	Students will write down the various ways to protect themselves from the viruses and worms of the computer world in their Detective Notebooks as you discuss them with the whole group. Use “Ways to Protect” sheet. (25m.)
Step 11.	Pass out the Detective outline that’s been copied onto 12x18 sheets of paper and allow the students to design their detective with each of the tools described and two “bubbles of dialog” that shout important reminders about viruses/worms to all who may see it. Encourage creativity and neatness! Students will attach their Detective Notebooks to the bottom of their picture. (30m.)

Participation Checklist (graph)

Obj.#	Activity	Learner Participation
1	1. Write the words "virus" and "worm" on the overhead projector. As a whole group, create a list of characteristics that define each. (6min.)	Requires learner input in order to create the list.
1	2. Pass out the "Computer Virus/Worm" informational handout and read together as a whole group. Use the overhead also. (10min.)	Requires learner input, active listening, and participation through the group reading and discussion
1	3. Introduce the "Dr. Detective Security Notebook" and allow students ten minutes to construct a Venn diagram comparing/contrasting the virus/worm of the real world with that of the computer world. (20 min.)	Requires individual productivity in the creation of the Venn diagram in a notebook.
2	4. With the whole group, introduce the thirty various envelopes after spreading them across a table at the front of the room. Point out the unique characteristics of each and what's offered inside. (10 min.)	Requires active listening techniques.
2	5. Allow students to come up one at a time and select an envelope...and then follow the instructions inside. As students begin to ask questions about various envelopes, offer hints or "research news" about their proposed pick. (30 min.)	Requires learner participation in the selection of an envelope and active listening/thinking as they learn from others.
2	6. Have students work in pairs as they write an entry in their Detective Notebooks about the activity and its connection to opening unknown "envelopes" online. Allow volunteers to share with the whole group. (20 min.)	Requires teamwork and productivity in the creation of a "paired" entry in the notebook.
3	7. Introduce the game of "Safe & Danger" and demonstrate for the whole group. Students try to turn over "safe" cards by guessing/buying clues and earning points. Be sure students understand that it costs points to get a clue as to which cards may be safe...they may "buy" clues or not. When buying a clue, first draw a "cost" card and then a clue card. Students start with 50 point. Each "danger" card costs the player half of his/her points...a "safe" card earns 50 points. Play in approx. six small groups. (35 min.)	Requires active listening techniques, learner input (questions), productivity in the playing of the game.
3	8. Come back together as a whole group and allow students to share what strategies worked best 9or worst) for them. (10 min.)	Requires learner participation through discussion.
3	9. Write out a list of connections between playing the "Safe & Danger" game with the cards and the...safe and danger game when using the Internet. Have students write out the list in their notebooks. (15 min.)	Requires productivity in the creation of a "connection" list.
4	10. Students will write down the various ways to protect themselves from the viruses and worms of the computer world in their Detective Notebooks as you discuss them with the whole group. Use "Ways to Protect" sheet. (25 min.)	Requires active listening techniques and productivity in the creation of a list in the notebooks.
4	11. Pass out the Detective outline that's been copied onto sheets of paper and allow the students to design their detective with each of the tools described and two "bubbles of dialog" that shout important reminders about viruses/worms to all who may see it. Encourage creativity and neatness! Students will attach their Detective Notebooks to the bottom of their picture. (30 min.)	Requires productivity in the creation of a Detective picture illustrating tools needed to be safe and avoid viruses/worms.

