

Business Partner: Allegheny National Forest
Curriculum Relationship: Social Studies/mathematics
Grade Level: 6
Rebecca Yeager

Lesson Title: Document the past

Objectives: To document natural and man-made structures for details of measurements and surface characteristics.

Materials: Pencil, eraser, ruler, graph paper, white notepaper, camera, film, tape measure, PhotoShop

Vocabulary: Inches, centimeters, enlarge, documentation

Activity/Intro: A walking field trip around community

1. Students will choose something unique to the community that was created over 50 years ago.
2. Students measure, sketch, and photograph their choice and write a physical description.
3. Return to school to discuss what the historical context of their selection is.
4. Students will create a written summary of their selection

Directions:

1. Using graph paper, a scale drawing is to be created with each square to equal 1 cm.
2. Details are to be added with hints to the surroundings.
3. Keys and titles are added to the document.
4. Day 3 of the project, using Photoshop, will crop and note size within the original image then print.
5. Compose works, drawings-photographs-written physical and historical descriptions, in a book to be given to library/historical society/as determined by the students.

State Standard: 7.1, 7.2

Audio Visuals: Examples from documentation of the Conservation Corps work in Warren County.

Business Partner: Sew Necessary
Curriculum Relationship: Family & Consumer Science
Grade Level: 8
Georgia S. Ludwick

Project Title: Making a Paper Shaded 9-Patch quilt block

Question: What factors are considered when designing a quilt? How can a basic block be used to create an original quilt design?

Goal: Students will gain familiarity with making the whole (the quilt) from a single unit (the quilt block)

Specific Objectives:

1. Students will demonstrate ability to measure and cut accurately.
2. Students will gain understanding of color theory.
3. Students will demonstrate ability to follow directions
4. Students will demonstrate cooperative skills as they join their individual “blocks” to form the “quilt”

Materials needed: white paper, ruler, scissors, pencils, markers, crayons, glue sticks, 9-inch square oaktag

Procedure:

1. Discuss and demonstrate color “contrast” darks and lights.
 - a. Students will choose two colors.
2. Cut the following from white paper: 9- 3” squares.
3. Using the two colors chosen in #1, color four squares the light colors and 5 squares the dark color.
4. Cut one dark and one light square in half diagonally.
5. Each student should now have 3 light squares and 2 light triangles. Also, four dark squares and 2 dark triangles.
6. Using 9-inch square of oaktag mount the paper pieces using a glue stick.

- 7 Square is constructed as follows:
 - a. Row one: dark triangle on the left, a light triangle next to it, 2 light squares.
 - b. Row two: two dark squares and one light.
 - c. Row three: two darks and one dark triangle, one light triangle
- 8 Students will place blocks together on wallboard to form quilt. Students should work together cooperatively to “design” the wall quilt.

Assessments: Students will self evaluate the quality of workmanship, choice of color contrast, and how the “quilt” works as a whole unit. Students will also verbally evaluate how well they worked together as a group

Connections: Although this lesson plan was designed as an introduction for a sewing class, it could be used to teach other subjects or to incorporate other subject matter into this lesson. It could easily be part of a math class, social studies, art class. It could also be used as the impetus or a unity activity, etc., etc.

Business Partner: Quality Market

Curriculum Relationship: Math

Grade Level: 1

Regina Burlingame

Objectives:

1. Students will be able to count to 20 using empty grocery store items.
2. Students will be able to determine shape of cylinder and rectangle from empty grocery store containers.
3. Students will recognize and compare the differences and similarities in packaging material available in grocery store.

Materials: 10 Empty cereal boxes, 10 Empty cake boxes, 10 Assorted sizes of coffee cans, 10 Assorted sizes of plastic bottles, Unifix cubes –10 per child

Activity 1: Whole group activity, teacher modeled and directed, 3 days – 30 minutes each day.

1. Have children make a pattern of containers into rectangles and cylinders (A=rectangle-B=cylinders.)
2. We will also make this pattern at our desk using rhythmic clappingclap=A, snap=B.
3. We will make the following patterns with unifix cubes as well as containers. AABB AABB or AAAB AAAB or ABBB ABBB
4. Children will describe and compare each box shape, texture, and markings (color /picture)
5. Children will describe and compare each can texture and markings.
6. Children will describe and compare each plastic jar, texture and markings.

Activity 2: Divide class into three groups, 3 days –30 minutes each day.

1. **Group 1** -Categorize and compare the boxes.
 - a. Students will arrange boxes from shortest to tallest.
 - b. Students will arrange and compare boxes from lightest to heaviest.
 - c. Students will arrange and compare boxes with the most pictures to the least pictures.
 - d. Students will arrange and compare boxes from the most writing to the least.
 - e. Students will see if there are any words or numbers on each container that they could recognize.
2. **Group 2**- Do same activities with cans as with boxes.
3. **Group 3**- Do same activities with plastic jugs.

Each day switch groups. On the third and final day bring class together and the students will model the similarities and differences of the grocery product containers.

Future application: Spontaneous recognition of attributes and classification of containers in the real world.

Business Partner: Northwest Savings Bank

Curriculum Relationship: Math – Budgeting

Grade Level: 9-12

John Check

Once you are out of school, you will have to get a job so that you can earn money. You might think that you will be able to spend all of the money that is in your paycheck. However, this is not true. Every month there are certain expenses that will have to be taken care of. For example, when you begin living on your own, you will have to pay for rent, food, utilities such as electricity, gas,

Business Partner: Allegheny National Forest

Curriculum Relationship: Science – A rotting log serves as a habitat for many plants and animals, which vary according to the log's stages of decomposition. Initial question: What might live in a rotting log?

Grade Level: 4-6

Janet Mack

Objective: To concoct a recipe that will create the best soil soup out of a rotting log.

Materials: Empty cans wrapped to look like logs, paper, 8pencils, scraps of paper and cloth,

Divide the children into small groups. Tell them they are going to be cooks and make soil soup. Give each group a large can wrapped in brown construction paper to resemble a rotting log. As cooks, they will have to decide which ingredients will be needed to make soil soup. Offer a list of possible ingredients if you wish, such as: shade, rain, salamanders, ice, ferns, moss, ants, beetles, centipedes, woodpeckers, worms, daddy longlegs, pillbugs, slugs, spiders, mushrooms, insects eggs, snakes, sunshine, millipedes, and snails.

As each ingredient is chosen add its name or a picture of it to the soup container. After all soups are complete, ask each group what ingredients they used and why. Older children and also be asked to write up their recipe. For example: Take 1 rotting log. Add 3 salamanders and 2 handfuls of moss. Let it sit for 4 months. Have the class vote on the best soil soup recipe.

Business Partner: National Forge

Curriculum Relationship: Math

Grade Level: 9-12

Gary Breese

Objectives:

1. Distinguish between counting and measuring, and between precision and accuracy.
2. Read and write measurements to show precision and tolerance.
3. Compare measurements to specified tolerances.
4. Use significant digits to indicate the accuracy of a measurement.
5. Use precision tools to make measurements.
6. Calculate with measurements and round to results if appropriate.
7. Apply concepts above to the accurate reading of blueprints and technical drawings.

Materials:

1. A variety of blueprints/technical drawings.
2. A variety of measuring instruments (ruler, tape measure/sixteenth of an inch, calipers, micrometers)
3. A variety of items to measure (width of pencil, thickness of various coins, nuts and bolts, pipe length, inside and outside diameters, etc.)

Activities:

1. Student exercises from Applied Mathematics/Unit 13: Precision, Accuracy and Tolerance
2. Reading blueprints/technical drawings to determine the following: Basic size, tolerance, dimension limits.
3. Hands-on: using a variety of measuring instruments (calipers, yardstick, machinist's rule, micrometers, cloth tape measures, steel tape measures, etc.) as a lead-in to precision, greatest possible error in measurement and variations in measurement (of the same item).

Business Partner: OSRAM Sylvania

Curriculum Relationship: Practical Computing 2

Grade Level: 9-12

Ginny Barrett

Objective: Students will use spreadsheets to organize and summarize the effectiveness and efficiency of a machines production.

Procedures: Students will organize the given set of data for a given period by products produced, number of rejects, and amount of time running. Students will then perform statistical analysis using the function wizards for average, median, std., dev., maximum, and minimum. Students will then use the data analysis software to determine if the results compare to each other. This will give the students the opportunity to compare the results obtained and to learn to use the analysis feature of the software. Student's success will be measured by their ability to complete the exercise and expand this to an area that would be useful for them personally.

Business Partner: Rouse Home Estates
Curriculum Relationship: Health/Physical Education
Grade Level: 1-6
 Kitty Morse

Objective: To help the children understand the handicaps of the elderly.

Things Needed:

- 1 Sunglasses with Vaseline on them
- 2 cloth to tie down arm or leg
- 3 cotton balls to put in ears
- 4 blind fold
- 5 wheelchair
- 6 cane
- 7 walker

Procedure: I will begin the lesson with a discussion of the five senses and what each does for us. We will also discuss what it would be like if we didn't have one or more of these senses. I will then tell the children about my visit to the Rouse Nursing Home. We will discuss the various handicaps the elderly are faced with and how the children think it would feel if they had these handicaps. This will lead into role playing of different handicaps. One child will be a helper and the other will have the handicap, and then they will switch.

Closure: The children will tell how it actually felt to have this handicap, and what they would do to help themselves live with the handicap.

Business Partner: Northwest Savings
Curriculum Relationship: Accounting
Grade Level: 10-12, can be adapted for younger students
 James G. Morrison

Time Required: One class period (40-50 minutes)

Materials: The only materials for this lesson are derived from documents teachers should be able to obtain from a local bank:

- 1 One blank copy of an automobile loan application for each student
- 2 One copy of an individual's credit history report (with name omitted) for each student.

Procedure: As an icebreaker, ask how many students have already had experience in borrowing for an automobile. Discuss briefly.

- 1 Distribute to each student a copy of a sample automobile loan application.
- 2 Have students complete the application as best they can.
- 3 Then discuss: What are some of the more important questions asked on the application? Why are they asked?
- 4 How accurate and truthful must the answers be?
- 5 Do you think certain answers might disqualify an applicant from getting a loan? Explain.
- 6 Answer any questions the students might have about the application.

Next, divide the class into groups of four.

- 1 Give each student a copy of a credit report for an individual.
- 2 Allow some time for the students to study the report and discuss its contents.
- 3 Have each group write down answers to these questions:
 - a. Imagine that a bank is considering whether to give this person a loan.
 - b. Which information on the report do you think is most helpful to the bank in making its decision? Why?
 - c. Does any of the information seem irrelevant?
 - d. Is there anything on the report that surprises you? Why?
- 4 Outline in four or five sentences a good policy for individuals to follow in trying to keep their credit history "clean."
- 5 After the groups have written down their responses, ask for students to share some of their answers. Discuss.

Closure: Remind students they previously learned about the "four C's" of borrowing (credit, collateral, capacity and character). Ask: Why do banks consider credit the most important of these? Discuss.

Business Partner: Holiday Inn of Warren**Curriculum Relationship: Business Ed****Grade Level: 9-12**

Martha Asp

Objective: Students will be able to dress appropriately for interviews and fill out employment applications with good information.

Materials: Applications from different places of employment (with permission to copy for classroom purposes.), play telephone for role plays

Format: Classroom discussion, Role-plays, 2 or more class periods

1. Ideally, students would give suggestions on what should be worn to interviews. Teacher or classmate would write on board all suggestions for both male and female students.
2. Class discussion on why some ideas would be better than others, why dirty or jeans with holes, pants, clothes would not be appropriate.
3. Some students would voluntarily wear clothes the next day to class that would be appropriate for job interviews.
4. Class discussion on why these clothes would be good or ideas on how they may be improved upon.
5. The telephones would be for role-plays for pre-interview sessions. (Ad-libbing sessions with teacher generated scenarios)

The class period where students would fill out applications would ideally be followed by (real) employers interviewing from their applications. Of course some pre-planning would be necessary and this is where the STW program is important for making contacts with employers. The employer could explain what they are looking for in employees, first hand, and explain some of the problems they have had with interviews. Post classroom sessions would then be needed to get feedback from students on what was learned.

Business Partner: Loranger Manufacturing**Curriculum Relationship: Machine Technology****Grade Level: 11-12**

Barb Scott

Objective: Students demonstrate or model the skills of a Press Operator at a manufacturing company like Loranger.

Supplies: Job packet, calculator, pencil, paper, clipboard, gloves, storage bins, plastic parts.

Directions:

1. The student will have previously done a job shadow at Loranger in the Thermoset or Thermoplastic division in order to model the proper work skills.
2. The student will model punching in or clocking in. At Loranger the employee puts their hand on a scanner/reader and keys in their employee I.D. number.
3. The student will model going to the Press Operator on the previous shift.
4. The student will verbally communicate with the Press Operator to determine the performance of the press during the previous shift.
5. The student will report to the Team Leader as a check-in procedure.
6. The student will get the job packet from the Team Leader and verbally communicate with the Team Leader to confirm job responsibilities.
7. The student will put gloves on both hands.
8. The student will relieve the previous shift Press Operator.
9. The student will check specifications in the job packet before starting the job.
10. The student will operate the press.
11. The student will count output and document the total number of parts produced.
12. The student will record the total number of parts over the time and determine the percent using a calculator.
13. The student will signal to the Team Leader at break time that he needs to be relieved.
14. The student will relieve the Team Leader and resume his operation of the press after break time.
15. The student will visually check or inspect the product.
16. The student will measure the product and compare it to the specifications in the job packet.
17. The student will clean and maintain the press.
18. The student will communicate with the next shift Press Operator before punching out.

Business Partner: Allegheny National Forest Science Lab, Irvine, PA**Curriculum Relationship: Science****Grade Level: 7-8**

Carolyn Yurick

Introduction: Scientists collect and press plant specimens to use for reference and study. Scientists have a procedure for pressing and identifying plants. A collection of pressed specimens is called a herbarium. Pressing and drying can be done easily, even at home with readily available resources such as newspaper, waxed paper, and several heavy books.

Objectives:

1. To learn plant pressing.
2. Create a classroom herbarium for resources.
3. Identify plants that grow in this region.

Materials:

1. Paper (index cards, botany paper or heavy card stock)
2. Cookie tray to hold glue
3. Old newspaper (to absorb the moisture)
4. Pieces of cloth/old sheets (cut into pieces to fit over the cards/paper)
5. Brushes (to work the specimens)
6. Reference books

Procedures:

1. Spread newspaper on counter top to keep area dry.
2. Spread, trim, arrange plant on newspaper. You may use brush for this.
3. Place a piece of waxed paper over the arranged plant.
4. Gently place entire bundle into plant press.
5. Check bundle after 24 hours.
6. After three to four days, remove arrangements and glue card/sheet onto construction paper cut about $\frac{1}{4}$ to $\frac{1}{2}$ inches wider and longer than arrangement sheet (this will frame the arrangement).

Identifying plant:

1. If you intend to identify the plants, instruct students to press only one plant on a sheet.
 - a. Use a plant key to classify them.
 - b. Label appropriately with plant name, location collected, depth, date, and collectors name. Glue this label on the lower right hand corner of the sheet holding the plant.
2. Create a class herbarium by combining all specimens mounted by students.

Library Research:

1. Research one or a number of products of plants and how they are used.
2. Find as many products on the market today that contain plants.

Business Partner: G&R Machine**Curriculum Relationship: Special Ed****Grade Level: 9-12**

Jennifer Morrison

Lesson Plan: Filling out Cookie Production Sheet

Materials needed: Cookie Production Sheet, Chalkboard/chalk, Clipboards and Small boxes.

Procedure:

1. Students will be shown the Cookie Production Sheet.
2. Students will discuss with teacher how to fill out the sheet.
3. Students will state their name and teacher will write it on the board.
4. Teacher will discuss that the first letter of their first and last names are their initials.
5. Teacher will demonstrate how to write his/her initials on the board.
6. Teacher will then ask the students to tell what their initials are and the teacher will write them on the board next to their name.
7. Teacher will then show the students where their initials would go on the production sheet.
8. Students will practice writing their initials on the sheet.

Business Partner: OSRAM Sylvania**Curriculum Relationship: Math****Grade Level: 4-6**

Dona Grosch

Objective: The students will increase ability to sort objects or sequence objects.

Materials: Fruit Loops, string, colored chalk, chalk board, variety of sizes and shapes of nuts and bolts.

Activity 1:

1. Give each of the students a pile of 20 Fruit Loops and one piece of string.
2. The teacher should help tie a Fruit Loop of the same color to the end of each string.
3. The teacher will use the colored chalk to make a line for the color of about 8 to 12 Fruit Loops on the board. The students will string the same color Fruit Loop on the string. The first one to sequence the Fruit Loops in the correct color order is the winner.

Activity 2:

1. Give each student a pile of mixed nuts and bolts.
2. The students will need to come up with three different ways to sort the pile (size, color, shape, etc.)
3. The students will need to explain to the other students how they separated the pile of nuts and bolts.

Evaluation: For Activity 1 the students will all be able to string up the Fruit Loops in colored order for up to 12 pieces in a timely manner. For Activity 2 the students should be able to come up with three ways to sort the pieces and explain the reason for each group.

Business Partner: US Forest Service Science Lab**Curriculum Relationship: Science –Biology****Grade Level: 9-12**

Catherine Hagadorn

Objective: Population Density Assessment

Census – complete count of the organisms present or harvested

A census can be obtained for an entire population or for a portion of the population (animals harvested);

1. Fishery biologist may drain a body of water and count all of a species present
2. Biologist can census the breed portion of a population of trumpeter swans.

Total census of a population is rarely done because they are expensive and logistically problematic. Small populations of highly visible animals are easy to manage.

1. Animals are mobile
2. Even though fish are confined to a body of water, they are not visible.

Survey - a partial count of organisms present or harvested. Surveys are conducted more often because they are less expensive and easier to accomplish.

Surveys are typically expanded to an estimate of the total by using statistical methods.

1. Mark and recapture- sample of animals are captured and marked – the animals are released back into the population – another sample of the population is captured and a ratio of marked to unmarked is used to estimate the total density.
 - a. Discuss US Forest Service internship of mark and recapture study of mammal populations after insecticide spraying of sample plot.
 - b. Animals were caught in small traps baited with peanut butter or oatmeal.
 - c. Ear tags were put on any animals caught without tags.
 - d. Data was kept on what type of animal, sex and tag number.
 - e. Show ear tag samples.
 - f. Show pictures of traps, animals and tagging procedure.
2. Strip census – count all animals in a strip through a plot to estimate the total population.
3. Plot census – same as strip only using plots.
4. Remote sensing – use of a recording device to acquire information about population (aerial photography – thermal imagery)

Population Density Assessment

Census: A census can be obtained for an entire population or for a portion of the population (animals harvested)

- 1 Fishery biologist may
- 2 Biologist can census

Total census of a population is rarely done because they are:

1. Animals are mobile
2. Even though fish are confined to a body of water, they are not visible.

Small populations of highly visible animals are easy to manage.

Survey: Surveys are conducted more often because they are _____ and easier to accomplish.

Surveys are typically expanded to an estimate of the total by using statistical methods.

1. Mark and recapture
 - a.
 - b.
 - c.
 - d.
2. Strip census
 - a.
 - b.
 - c.
 - d.
3. Plot census – same as strip only using plots
4. Remote sensing –

Examples:

Business Partner: Warren Public Library

Curriculum Relationship: Library and Media Resources

Grade Level: 4-8

Rena Lucks and Pamela Nasman

Lesson Plan 1

Goal: To introduce the staff at Youngsville Elementary/Middle School to the many resources available at the Warren Public Library.

Objectives:

1. The staff will be given an overview of the STW experience at the Warren Public Library.
2. The staff will be introduced to each department in the library, the staff in the department, and the many services available in each specific department.
3. Various genres will be identified to the staff.

Lesson Plan:

1. Mrs. Lucks and Mrs. Nasman will give an overview of their experience at the library. The librarian's perspective and the teacher's perspective will be an integral part of this portion.
2. Each department will be described along with the staff member involved and material and services available.
 - a. Circulation
 - b. Children's Room
 - c. Technology Resources
 - d. Reference Room
 - e. Adult Services
 - f. Interlibrary Loans
 - g. Cataloging
 - h. District Library Services

- i. Director's Responsibilities and Services
3. After presenting the various departments, a question and answer period will follow. Handouts will be given to each staff member.

Assessment: Oral feedback from the staff and completion of a written survey.

Business Partner: Warren Public Library

Curriculum Relationship: Library and Media Resources

Grade Level: 9-12

Pamela Nasman

Lesson Plan 2

Goal: Students will have the expertise to use their library card to connect with Access PA and its many search engines.

Objectives:

1. The students will become active members of the Warren Public Library.
2. The students will learn how to use the Internet and their library card number to connect with Access PA.
3. The students will use Seachasaurus to find information on the Olympic Games in Sydney, Australia.

Lesson Plan:

1. The students will fill out an application for membership cards to the Warren Public Library. They will be assigned to take it home for a parent signature.
2. The cards will be sent to the circulation department to enable the department to process the library card.
3. While the cards are being processed, time will be spent in the computer lab to familiarize students with the operation of the computer and the steps necessary to get "on-line".
4. Each student will receive their library card and record their number in their portfolio folder.
5. Students will receive their library card number after they are on-line in the computer lab to go to Access PA.
6. The students will be instructed to go to Searchasaurus. Once at this site, they will be instructed to type in "Olympic-Sydney". When they reach the appropriate site, they will be given time to read the information and discussion will follow. Pertinent information will be printed to take back to the classroom to use with the Olympic unit.

Assessment: Students will be asked to design an informative poster on the Olympic Games in Sydney, Australia. Information gathered from their search will be used on their poster. A rubrics will be given to the students before the assignment is due so they will be aware of what is expected. The final product will be given a percentage grade using the rubrics.

Business Partner: PennCom Internet

Curriculum Relationship: Computer Technology

Grade Level: 9-12

Priscilla Breese

Procedure:

1. Discuss terminology dealing with Web Design (See attached Handout)
2. Discuss Guidelines for good Web Design (See attached Power Point Presentation)
3. Show examples of good and bad web design.
 - a. VW: http://www.newbeetle.com/english/home/index_.htm
 - b. Welcome to NovAtel: <http://www.novatel.com/>
 - c. Web Pages that Suck: <http://www.webpagesthatsuck.com/wpts1/indexvf.html>
4. Talk about software that will be needed in creating a web site.
 - a. Netscape Communicator: (Use the Smart Download Option)
 - b. <http://home.nescape.com/computing/download/index.html>
 - c. OR
 - d. Netscape Navigator Gold: (to use with a computer that is less than a
 - e. POWER MAC or Window 3.1
 - f. http://home.hetscapte.com/download/archive/client_index2.html#3.04
 - g. **WS_FTP LE 95 or PRO (Windows 97/NT): <http://tu cows.penn.com/>
 - OR
 - h. FETCH (Power MAC): <http://www.tucows.com/>

Adobe Acrobat Reader: <http://www.adobe.com/products/acrobat/readstep.html>

1. Talk about the type of web site that the participants might want to create.
2. Have the participants search the web for similar web sites.
3. Discuss Web Site organization. (See handout)
4. Have the students make a storyboard of their Web Site and present it to the class to critique. Students should be clear on who the audience will be and what the purpose is of the web site.
5. Discuss the features of the “Composing” element that is part of the latest version of the Netscape Communicator.
6. Discuss the graphics that they might want to use to make their Web Site more appealing.
(Graphics that can be used must be either a .jpeg or a .gif.) Graphics may be acquired from
 - a. Clip Art CD ROMS made available in the class
 - b. Public Domain Web Sites that have free clip art (A list of some of these sites is located on a web page at <http://www.penn.com/wcsd/LibraryMedia/webtools.htm>)
 - c. Graphics that are scanned to put into digital format
 - d. Pictures taken from a digital camera
 - e. Graphics that are created with a computer program
7. Discuss how participants might want to download some shareware software from Tucow.com to work with graphics.
 - a. Paint Shop Pro
 - b. Adobe.com for a site called “Create a Banner”
 - c. AnFx
 - d. Ulead
 - e. Advanced GIF Optimizer
 - f. Ignite Web Graphic Optimizer
 - g. Ulead Smart Saver
 - h. Web Graphics Optimizer
 - i. ACDSee-allows you to look at images and to help manage them into your files.
 - j. Simple Viewer- slide show
 - k. Thumb Print Pro
8. Show the participants the scanner and the digital camera.
9. Give the participants a chance to look for graphics that they might use on their web site.
10. Have the participants create a folder that reflects the subject matter of their web site.
11. Participants will create the startup page for their web site and call it index.html (htm)
12. Demonstrate such features as:
 - a. Wrapping text around a picture
 - b. Using tables to help organize your page
 - c. Removing table borders
 - d. Place a boarder around the graphic to look like a frame
 - e. Using dividers
 - f. The purpose and use of targets or anchors
 - g. Creating a link
 - h. Creating an email link
 - i. Show the effects of formatting the properties for images and tables
 - j. Show any other features that the software has that can enhance the interest of the Web Site
13. Allow the participants time to work on their web sites and work individually with students to ensure their success. As you come across novel ideas or reoccurring problems, use the data projector to share those problems with the class. This will ensure a variety of situations will be shared with the whole class.
14. Show the students how to use the WS_FTP LE share ware to publish their pages to the Internet.
15. Discuss with the students how to promote their Web Sites.
16. Advice:
 - a. Do not rely on search engines. Put our web address on all correspondence, brochures, stationary, business cards, advertisements, etc. If there are trade journal or web sites relevant to your Web Site try to get your URL listed in these journal.
 - b. Your ISP might have a service that for a fee they will get your web site registered on a number of search engines.
 - c. Resubmit your web site to the search engines periodically so that your site is catalogued “fresh” frequently.
 - d. Check with the search engines to see if they have a “preferred” list. Chances are if they do it will cost you, but it may be worth it.
 - e. Buy a “banner” ad on a search engine, the hosting server web site or on a site that has a similar purpose as yours.
 - f. Make sure your site is worth visiting. Is it quick to load? Easy to read? Up to date? Does it offer quick and easy access to information? Is it user friendly?

Web Terms To Know

WEB PAGE

- A single document published on a Web server that has HTML tags in it
- Almost always includes links and often includes graphics

WEB SITE

- A collection of Web Pages that are usually accessed through the site's Home Page and that share a common theme and purpose.

HOME PAGE

- The Home Page is the starting page for your Web Site
- It contains links to other pages in your site
- Usually the page that your Web Browser is set to start at

LINK

- Indicates to the browser a place where you want to go
- Text or graphics can be used as a link
- Links take you to more information or another web page

TARGET

- Used to indicate where you want a link to go, like the top of a Web Page or to a particular section of a document of a Web Page

PUBLIC DOMAIN GRAPHICS

- Graphics that are free to use without violation of copyright
- Here are a collection gathered together that you may use <http://www.penn.com.wcsd.LibraryMedia/webtools.htm>

FTP – File Transfer Protocol

- This is a software that is used to transfer computer files to another system
- Popular software is WS_FTP. You can download various versions from the Tucows Free Download Website located at <http://www.penn.com.wcsd/LibraryMedia/webtools.htm>
- Netscape Communicator has a publishing software built into it, but you may want to use WS_FTP instead.

NETSCAPE COMMUNICATOR

- <http://home.netscape.com/computing/download/index.html>

HTML or HTM – HyperText Markup Language

GIF – Graphic Interchange Format

JPEG or JPG – Joint Photographic Exports Group

MPEG or MPG – Moving Pictures Export Group (animated)

VRML – Virtual Reality Markup Language (animated)

MIDI – Sound Files – Individual instruments

WAV – Sound Files

PDF – Portable Document Format

HTTP – HyperText Transfer Protocol (prefix)

Business Partner: Parker-Hannifin, Andover, Ohio

Curriculum Relationship: Problem Solving

Grade Level: 10-12

James Mechling, Small Engine Repair

Objectives: Given three problems involving a communications breakdown, a mechanical failure, and a personnel problem, the student will use a systematic approach by selecting a solution, then testing and evaluating the solution, and act on the solution to correct the problem.

Introduction: Many Fortune Five Hundred companies and employees of small business face a vast array of daily problems requiring problem-solving skills. An employees' worth is based upon his or her ability to effectively trouble shoot, locate and find solutions to problems and situations that arise. These problems are caused by a number of variables, from communication breakdown to disgruntled employee. An effective problem solver must possess a number of viable skills to become a valued employee. (Use Parker-Hannifin story (*) on lean manufacturing.)

Procedure: View the video (*) presentation on communications in the work place (unit 6 problem solving techniques). Provide the students with three problems. (*) The video and Parker-Hannifin story are located at the STW Office. Please phone to make arrangements to borrow.

Problem #1 Scenario (Case Study)

On December 29, 2000, Mr. Angelo, the salesman of Acme-Coyote Stamping Inc., sold the Harley-Davidson Corp. 3,500 finned muffler assemblies to be delivered on Jan. 31, 2001. Instead of sending the product directly to the Harley-Davidson plant, the salesman was repeatedly instructed to send the muffler assemblies to Brown's Chrome Plating Co. The mufflers would be chrome plated before assembly, and then shipped to Harley-Davidson. Mr. Angelo checked his manifest and found their inventory contained 3,800 pieces and assured Harley-Davidson that delivery would be made quickly. Harley-Davidson reinforced that an untimely shipment would shut down their production. On Jan. 26, 2001, a shipment of 3,550 muffler assemblies arrived at Harley-Davidson receiving from Acme-Coyote Stamping Inc. Receiving personnel were impressed with the timeliness of the delivery. On Feb. 5, 2001, the inventory control department discovered that there was no chrome on the muffler assemblies. There were only enough past inventories to sustain two more days of production. The inventory control department contacted Brown's Chrome Plating Co. and explained the problem. Unfortunately, Brown's had no record of this order or of any being placed for 3,500 mufflers to be chromed. An irritated Harley-Davidson purchasing agent then called Mr. Angelo at Acme-Coyote Stamping Inc. to find out why the order wasn't filled correctly. An inflamed Mr. Angelo went to the shipping agent of his company, Mr. Fowler and interrogated him as to why this very important shipment was not sent to Brown's Chrome Plating Co. A very quiet and soft-spoken Mr. Fowler, in soothing words replied, "I shipped it just as you wrote it on your shipping request, Mr. Angelo."

Low inventory threatens production on motorcycle assembly line!

Discussion/Questions

1. Who is at fault?
2. How many people were involved in this mistake?
3. Why did this happen?

Systematic Approach to Problem Solving

1. Investigate the problem.
 2. List the possibilities that produced the problem.
 3. Identify the possible solutions to this problem.
 4. Select a solution.
 5. Test and evaluate the solution.
 6. Implement or act on the solution.
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1. Investigate to problem:
 - a. Bring together all personnel and documents associated with the problem.
 2. List the possibilities that produced the problems.
 - a. Poor organizational skills
 - b. No safety net in order procurement policies.
 - c. No follow-up procedures in Harley's Receiving Dept.
 3. Identify the possible solutions to this problem.
 - a. Restructuring of the order invoice and its downstream tracking.
 - b. A strict follow-up procedure.
 - c. Harley-Davidson receiving procedures need to be reviewed.
 - d. Receiving needs to contact vendor upon arrival of goods.
 - e. Sub-contracting vendor needs to be contacted at order signing and notified of intent.
 - f. New salesmen must be schooled in Harley-Davidson purchasing procedure.
 4. Select a solution.
 - a. Checklist format needs to be added to the order invoice.
Entailing A, B, C, D, E, F
 5. Test and evaluate the solution.
 - a. Use format for thirty days.
 6. Implement or act on the solution.
 - a. Send out a survey.
 - b. Implement any changes needed.

Materials Required:

1. VCR film Applied Comm., Unit 6
2. A case study or a mock scenario
3. Blackboard, chalk, or over-head projector w/overlays

Summary: Communication is vital to the success or failure of business. Millions of dollars are lost each day due to miniscule oversights. An employee must be aware of his or her impact on the success of their company. An employees' intuitiveness can save a company money and manpower.

Source: School-to-Work Program