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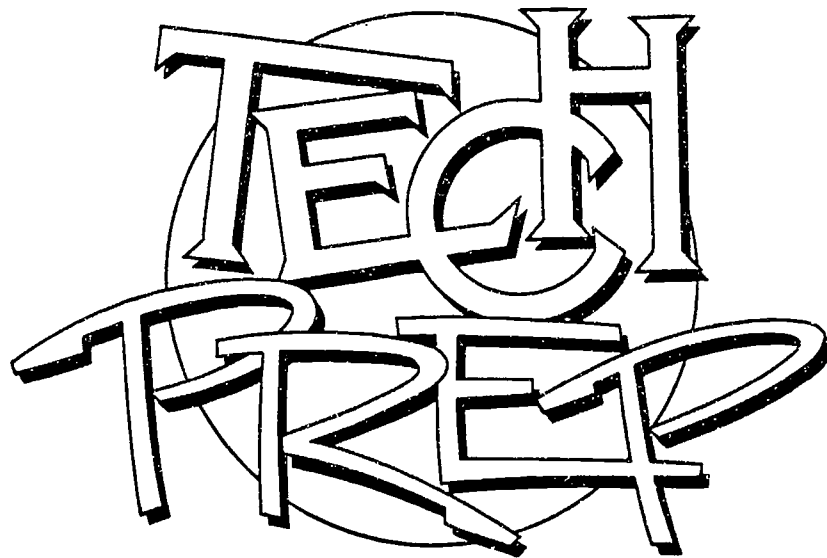
ABSTRACT

This document contains 50 applications-based lessons developed during the 1993-94 school year as part of the Indiana Region 10 Tech Prep Project. The lessons were developed by 91 secondary and postsecondary educators and are modeled around the SCANS (Secretary's Commission on Achieving Necessary Skills) competencies. The applications-based lessons attempt to bridge the gap between school and work and are designed to encourage students to develop specific content skills in English, math, science, business, and industrial technology while getting better at managing resources, working with others, dealing with information, understanding systems, and using technology. The lessons are built around long- and short-term projects. The format includes a description of the project, activities that take place in each of the SCANS competency areas, a timeline and materials list, and content competencies of which students can demonstrate mastery during the project. Some of the project topics include the following: calculating interest on investments, designing a school lunch menu, school attendance (statistics), broadcast news, creating a business, autobiographies, finding a job, creating booklets on computers, creating a videotape, student store, money management, and payroll and taxes. (KC)

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ED 374 325

REGION 10 TECH PREP



SCANS

LESSON DEVELOPMENT

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PREFACE

The following applications-based lessons were developed during the 1993-94 school year as part of the Region 10 Tech Prep Project. Ninety one secondary and post-secondary educators participated in the development of these activities which are modeled around the SCANS (Secretary's Commission on Achieving Necessary Skills, U.S. Department of Labor, 1991) competencies. The focus of SCANS was to identify what broad skills would be required of workers in today's and tomorrow's workplace and to suggest that schools must play an important role in helping students prepare for a more demanding workplace. The Commission identified the following five broad competencies:

Resources - Identifies, organizes, plans, and allocates resources.

Interpersonal - Works with others on teams, teaches others, serves clients, exercises leadership, negotiates, and works with diversity.

Information - Acquires, organizes, interprets, evaluates, and communicates information.

Systems - Understands complex inter-relationships and can distinguish trends, predict impacts, as well as monitor and correct performance.

Technology - Works with a variety of technologies and can choose appropriate tool for task.

The SCANS report suggests that these competencies "should be taught and understood in an integrated fashion that reflects the workplace contexts in which they are applied", and that "the most effective way of learning skills is in context, placing learning objectives within a real environment rather than insisting that students first learn in the abstract what they will be expected to apply."

The applications-based lessons we developed are our attempt to bridge the gap between the school world and the work world. As you will see, the lessons are intended to encourage students to develop specific content skills in English, math, science, business and industrial technology while at the same time getting better at managing resources, working with others, dealing with information, understanding systems and utilizing technology.

The lessons are built around long and short term projects. The format we used includes a description of the project, activities which take place in each of the SCANS competency areas which will help students improve in those areas, a timeline and

materials list, and content competencies which students can demonstrate mastery of during the project. These competencies which are numbered in the lessons are taken from the Indiana Tech Prep Secondary School Core Curriculum Competencies booklet developed by teams of tech prep demonstration site teachers and representatives of the Indiana Department of Education. Lessons in the Business area also may include competencies which were identified in the Indiana Tech Prep Model Business Articulation Agreement developed through a grant by the Indiana Department of Education in 1993.

The lessons are by no means complete. This summer, teachers from our Region will meet again to develop daily lesson plans for these projects which should make them more "user friendly". In addition, teams from individual schools will have an opportunity to identify lessons which will be taught in an integrated fashion by the team. As we developed these lessons it became clear that they could be used both by individual teachers or by teams--in each instance accomplishing one of the important goals of tech prep curriculum, namely, integration. We hope you find this information useful.

Bruce Ricklin
Region 10 Tech Prep Coordinator
Monroe County Schools
Bloomington, IN

ACKNOWLEDGEMENTS

The following educators participated in the development of SCANS applications-based lessons:

<u>Name</u>	<u>School</u>
Leon Ambrose	Martinsville
Garry Anderson	Edgewood
Eric Ban	Edgewood
Wayne Bauer	Indiana University
Sandra Baxter	Shakamak
Karen Blaker	Bloomfield
Keith Bobay	B. H. S. South
Janice Borders	White River Valley
Rhonda Burch	Bloomfield
Sue Calhoun	Bedford North Lawrence
Chantel Carpenter	Linton-Stockton
David Clark	White River Valley
Rita Cox	Linton-Stockton
Kenn Coy	Bedford North Lawrence
Donna Craig	White River Valley
Sue Cull	Owen Valley
Pam Dawson	Linton-Stockton
Timothy Day	Bedford North Lawrence
David Dean	Bloomfield
Ruth DiSilvestro	Ivy Tech -- Bloomington
Tim Drake	Shakamak
Timothy Duke	Shakamak
Linda Ellis	Martinsville
Robert Ellis	Bloomfield
Dennis Faust	Edgewood
Kenneth Fisher	Bedford North Lawrence
Ruan Fougerousse	White River Valley
Cindy Garnsey	Linton-Stockton
Natalie Garshaw	Martinsville
Chris Gehring	White River Valley
Donna Gorby	Shakamak
Kayla Hale	Bloomfield
Mick Hammett	Edgewood
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Timi Hasler	Bloomfield
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Scott Holman	Edgewood
Nancy Hudson	Bloomfield
Richard Hurt	B. H. S. North
Gary Johnson	Shakamak
Bob Jones	Edgewood
Michael Jones	Bedford North Lawrence
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Carrie Locke	White River Valley

<u>Name</u>	<u>School</u>
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Monty VanDeneede	Edgewood
Lori Vandeventer	Linton-Stockton
Joe Voris	Bedford North Lawrence
Steve Walton	White River Valley
Scott West	B. H. S. North
Frank Wintin	Bedford North Lawrence
Larry York	Martinsville

WHAT WORK REQUIRES OF SCHOOLS

A Blending of Head and Hand Skills

- **Resources:** Identifies, organizes, plans and allocates resources
 - Time
 - Money
 - Material and facilities
 - Human resources
- **Interpersonal:** Works with others
 - Participates as member of team
 - Teaches others new skills
 - Serves clients/customers
 - Exercises leadership
 - Negotiates
 - Works with diversity
- **Information:** Acquires and uses information
 - Acquires/evaluates
 - Organizes/maintains
 - Interprets/communicates
 - Uses computers
- **Systems:** Understands complex interrelationships
 - Understands systems
 - Monitors and corrects performance
 - Improves or designs systems
- **Technology:** Works with a variety of technologies
 - Selects technology
 - Applies technology
 - Maintains/troubleshoots equipment

Source: Secretary's Commission on Improving Necessary Skills (SCANS), U.S. Department of Labor, June 1991

SCANS Activity Worksheet

With a group of 2-3 other teachers, plan an activity which involves students in literacy and problem-solving activities in each of the areas below. The U.S. Department of Labor Secretary's Commission on Achieving Necessary Skills recommends that students start engaging in such long-term problem-solving activities as early as elementary school.

Age Level: _____

Activity Description: _____

Describe the way the activity provides learning in each of the following areas:

Resources:

Interpersonal:

Information:

Systems:

Technology:

M A T H

The following lessons were developed by Math teachers who met for four days during the school year.

SCANS Activity Worksheet

Age Level: High School Math: Business, Alg. I, Pre-Alg.

Activity Description: Using information received from lending institutions, determine options and feasibility of refinancing a mortgage. The result will be a report of contrasts and comparisons to be given to local institutions.

Resources:

- Identify different types of lending institutions.
- Assign a specific type loan for each group to research.
- Allocating responsibilities (game plan).
- Determine tools needed.
- Time to analyze and write up results.

Interpersonal:

- Letterwriting to institutions to gain cooperation for project by team.
- Teams need to identify available interest rates and payment options.
- Talk with parents and resource people regarding the options available and other extenuating circumstances.
- Discussion to determine best recommendation.

Information:

- Gather and analyze information from institutions.
- Decide on best method for organizing information.
- Present information to class for feedback.
- Prepare final combines report for publication.

Systems:

- Plan timelines when different tasks must be completed.
- Devise a system to monitor if everyone on schedule and task.
- Develop alternate plans when things go wrong.

Technology:

- Telephone to contact.
- Word processing/typewriter for contact letters.
- Calculators or computers to figure information (business department), and figure graphs.

Timeline:

1. Discussion of relevance of project. (1 period)
2. Research different types of loans (1-2 periods)
Brochures - Guest speakers
3. Plan and organize resources and interpersonal tasks:
tasks by group and individual assignments. (1 period)

4. Draft and finalize contact letters. (1-2 periods)
Page 2

Timeline, cont'd.

5. Review information and analyze from responses. (3-4 times for 1/2 period over following 2 weeks)
6. Compile and analyze data. (How to compile and analyze to be discussed during 2 weeks for #5) (1/2 - 1 day)
7. Write-ups. (Discussion of graphs, charts 2 days)
8. Reports. (in class - 1 day)
9. Prepare final report. (Rewriting if necessary - 1/2 day)
Mail to interested parties.

Materials:

- Phone directories:lending institutions, realtors. -- teacher
- Newspapers with financial information. -- teacher
- Samples of business letters. -- teacher
- Computer lab. -- teacher
- Sample of loan from bank, loan application, fee schedule, rate sheet. -- teacher
- Samples of presentation techniques (charts, graphs, etc.) -- teacher
- Direction sheets for oral presentation. -- teacher
- Arrange for speaker. -- teacher
- Direction sheet on how to compare and contrast data plus timeline for completion of each stage. -- teacher

Shakamak/White River Valley/Linton

Cindy Thorlton
Steve Walton
Rita Cox

SCANS Activity Worksheet

Age Level: Freshmen-Sophomore

Activity Description: Using information from financial institution, investment counselor and appropriate publications, have groups of 4-5 calculate money earned on an initial lump sum investment; and earnings established by saving at regular intervals. Then apply knowledge gained from group investigation to develop a realistic personal savings plan to be presented within the group. The group chooses the best plan and presents it to the class.

Resources:

- Obtain rate of interest from various financial institutions
- Allocate responsibilities
- Determine tools needed
- Establish group time within class parameters established by teacher
- Choose who to contact from list provided

Interpersonal:

- Letterwriting for information and/or speakers from financial institution
- Talk to people from institutions
- Identify strategies for savings from group cal - group discussion/agreement
- Present personal plan to each other

Information:

- Gather and analyze information from financial institutions and calculations
- Present information in verbal and written form

Systems:

- Plan group timeline with teacher guidelines
- Establish checkpoints to insure timeline is being followed
- Develop alternatives when group members are absent

Technology:

- Calculators for analysis of earnings
- Computers with financial software, spreadsheets, graphing data
- Telephone to contact financial institutions



Timeline and Materials:

- Teach interest calculations (1-2 periods)
- Plan tasks/establish division of labor (1 period + homework)
- Letterwriting, calling, etc. (1/2 period + homework)
- Calculate and analyze data (3 periods)
- Personal planning (homework with due date given)
- Presentation within group and best chosen (1/2 to 1 per.)
- Presentation to class -- best of each group.

Materials to be gathered:

- Addresses, phone number of local banks, financial planners, accountant
- Calculators and computers (appropriate software)
- Examples of a business letter, sample financial plan

10-12-93

White River Valley/Linton/Shakamak

Unit Plan

Names & Schools: Cindy Thorlton, Shakamak
Steve Walton, White River Valley
Rita Cox, Linton

Subject Areas: Interest

Unit of Study: Personal Savings Plan

Competencies Addressed:

1. Measurement / Operation #1
2. Probability / Statistics #3, 4, 8
3. Algebra #1, 2, 4

Bedford N. Lawrence / B.H.S.N.

Erma Lowrey
Brent McKee
Scott West

SCANS Activity Worksheet

Age Level: High School Math

Activity Description: Survey public about movie theater, eating places, or other community resources.

Resources: Identify the questions that need to be asked. Identify who to survey. Develop a survey form. Dictating responsibilities. Decide what to survey.

Interpersonal: How they will do survey. Deciding format of report and who will do what on report through brainstorming.

Information: Gather and organize data. Present information in the form of a data sheet and graph. Teacher facilitation of organization of data.

Systems: Develop a time schedule: (1) Develop survey (2) Carry out the survey (3) Organizing the data (4) Presenting data through report monitor time schedule. Develop alternate plans when things go wrong.

Technology: Develop a spreadsheet and graph analysis.

- cooperation with computer teacher
- word processor for report
- photo copy machines

Timeline and Materials:

1. Guest speaker on community resources and discussion of possible survey topics. (1 period)
2. Pre-teach use of spreadsheet on computer. (2 periods)
- check with computer teacher for use of lab.
3. Organize groups. Determine topic with teacher approval. Develop a survey tool and survey plan. (2 periods + homework)
4. Compile and analyze data.
(Brief class time and homework over a week)
5. Write-ups. (1/2 period + homework)



Materials to be gathered (either by teacher or students):

- A list of suggested community concerns.
- A list of possible groups to survey.
- Information on conducting a representative survey.
- A completed sample survey.
- Identify computer software.
- Line up a speaker.
- Direction sheets on how to analyze and present data.
- Teacher-made test over related topics.

UNIT PLAN

Names & Schools: Erma Lowery, Bedford N. Lawrence
Brent McKee, Bedford N. Lawrence
Mila Jones, Bedford N. Lawrence
Scott West, B.H.S. North

Subject Areas: Pre-Algebra

Unit of Study: Statistics

Competencies Addressed:

1. Measurement / Operations #2, 3
2. Probability / Statistics #2, 3, 4, 8

B.H.S. South/Bloomfield/Owen Valley

Keith Bobay
Timi Hasler
Jean Seger

SCANS Activity Worksheet

Age Level: High School Math -- Intro thru Algebra

Activity Description: Redesign the school lunch menu and product a written report to the Director of Food Services. Each team responsible for different aspect:

1. existing county health dietary guidelines
2. student survey -- willingness to pay? Preferences.
3. local business involvement
4. budget/inventory/waste
5. Policy: corporation guidelines

Resources:

- time to correspond, collect data, analyze and write-up
- identify and schedule guest speakers to speak to class
- allocate responsibilities to team members
- specific order of tasks?

Interpersonal:

- interview county health, food director, assistant superintendent, dietician, principal
- brainstorm survey questions
- visit successful cafeteria programs
- communicate with other teams (e.g. budget/inventory needs)

Information:

- design/administer a survey of students (preferences/willingness to pay)
- present information in verbal (class/school board) and writing (school paper)
- information from food experts (calories/fat/carbos/protein); sample menus
- use graphs, charts, tables
- federal guidelines re: food use

Systems:

- how does corp. policy and existing dietary guidelines limit our options?
- design an evaluation plan to determine success/failure (follow-up survey)
- reduce, re-use, recycle guidelines/ethics. Don't produce more waste.
- any effects on current cafeteria personnel?
- best to administer

Technology:

- existing computer programs re: budget and inventory
- calculator
- telephone contacts
- word processor to write report

PHASE I: CONTACTING FOOD EXPERTS

- A. Determine regulations/restrictions/policies (dietary, monetary, etc.)
 - county health agent
 - food service coordinator
 - cafeteria supervisor
 - corporation administration (principal, superintendent)
 - dietician
- B. Contact other successful cafeteria programs
 - Bloomfield
 - Indiana University
- C. Determine interest and possibilities from local fast food businesses

Timeline:

- 1 day -- brainstorm questions (homework: letter writing)
- 1/2 day -- final draft of letter (peer editing) (typed)
- 1/2 day -- making personal phone contact

Materials:

- phone books; yellow pages
- show letter model
- envelopes, stamps

PHASE II: OPINION POLL

- A. Brainstorming objectives and content of survey. Who will respond and how will it be distributed?
- B. Conducting poll:
 - how and when (backup plan)
 - contact teachers/principal
- C. Analyze results (graphs, pie charts, etc.)
- D. Announce results in student newspaper.

Timeline:

- 1 day -- brainstorming
- 1 day -- conduct poll
- 2 day -- tabulating and analyzing results (homework: rough draft of findings)
final report
send results to their contact person

Materials:

- computer statistical software (if available)
- photocopies of poll

PHASE III: REVISING SCHOOL MENU BASED ON STUDENT DESIRES, LOCAL BUSINESS INTEREST, AND POLICY AND MONETARY RESTRICTIONS

- A. Guest speakers: How do you design menus?
 - dietician
 - food service personnel
- B. Design new school menu
 - menu
 - implementation/space
 - cost
- C. Presentation for approval -- how and when?
 - principal
 - food service coordinator
 - school body

Timelines:

- 1 day -- guest speaker
- 1 day + homework -- design of menu
- 1 day -- prepare presentation; make contacts
- 1 day -- deliver presentation

Materials:

- video
- handout: What Makes A Good Presentation

CONTACT PEOPLE

<u>Name</u>	<u>Position</u>	<u>Phone</u>
	County Health Food Service Coordinator Cafeteria Supervisor Principal Superintendent Dietician	336-9838
	Local Fast Food Restaurants	

Page 4.

<u>Name</u>	<u>Position</u>	<u>Phone</u>
Mrs. Harding	Bloomfield School (successful program)	384-4550

11-9-93

Plan #1

UNIT PLAN

Names & Schools: Keith Bobay, B.H.S. South
Jean Seger, Owen Valley
Timi Hasler, Bloomfield

Subject Areas: Mathematics

Unit of Study: School Lunch Menu Project

Competencies Addressed:

1. Measurement/Operations 1, 2, 6, 7, 4
(weights/volume/area)
2. Algebra 1, 2, 5, 7, 8
(supply/demand/quantities)
3. Probability/Statistics 3, 4, 5, 8
(presentations & data analysis)

Keith Bobay, BHS SOUTH
Natalie Garshaw, Martinsville
Mick Hammett, Edgewood

11-9-93
Plan 2a.

SCANS Activity Worksheet

Age Level: General Math, Pre-Algebra, Alg. I, Alg. II,
Probability and Statistics

Activity Description: Sports Statistics

Collect, analyze, interpret and present statistics gathered from a local high school sporting event.

Resources:

- Identify what statistics need to be taken.
- Allocate responsibilities for gathering the statistics.
- Determine tools needed: for gathering and interpreting data (software)
- Time to collect, analyze, organize and write results.

Interpersonal:

- Have coaches or sportswriters talk with class regarding use of statistics in games.
- Group needs to decide how and when to gather statistics.
- Discuss with coaches what stats are used and what additional stats he might like to have.

Information:

- Gather statistics from newspaper to decide what to use.
- Create a form or chart to aid in gathering statistics at event.
- Interpret stats.
- Present stats orally to class and in written report to coach and school newspaper. Single game summary and season summary.

Systems:

- Plan timelines when activities need to be completed.
- Word processing for written report or news article.
- Telephone to contact newswriter.
- Calculators and computers for processing statistics (spreadsheet for organizing data).
- VCR / TV to view game for practice.

TIME LINE: 9 - 18 week project, depending upon sport.

1. Discussion of project -- choose sport and level. (1 period)
2. Speakers (1 period)
3. Attend events (after school)
4. Collect charts for comparison of statistics (1 pd. + homework)
5. Plan and organize task (1 period)
6. Pre-teach graphing on computer (optional) (1-2 periods)
7. Pre-teach spreadsheet (optional) (1-2 periods)
8. Group's option:
 - draft report (1-2 periods)
 - oral reports to class (1-2 periods)
 - newspaper article (1-2 periods)

MATERIALS:

1. Assessment handout: teacher
2. Schedules of events: teacher
3. Figuring statistics: speaker or teacher
4. Sample of presentation techniques: teacher
5. Direction sheet for oral presentation: teacher
6. Direction sheet for formats for written reports: teacher
7. Software available: teacher
8. Samples from newspaper: teacher
 - Game stats
 - Cumulative stats
 - Individual stats
9. Easel paper, markers, construction paper, posterboard
10. Stopwatches

11-9-93

Plan 2a.

UNIT PLAN

Names & Schools: Keith Bobay, B.H.S. South
Natalie Garshaw, Martinsville
Mick Hammett, Edgewood

Subject Areas: Pre-Algebra, Alg. I & II, Statistics

Unit of Study: Sports Statistics

Competencies Addressed:

1. Probability and Statistics: 3, 4, 5, 8
2. Measurement / Operations: 1, 4, 6, 7
3. Algebra: 1, 3, 4, 5

11-9-93

Keith Bobay -- B.H.S. SOUTH
Natalie Garshaw -- Martinsville
Mick Hammett -- Edgewood

Plan 2b.

SCANS Activity Worksheet

Age Level: Pre-Algebra, Algebra I

Activity Description: To create a home energy individual audit using existing appliances in the home and estimated monthly useage. Design an energy conservation program.

Resources: Individual Activity

- Time to inventory home energy useage and prepare the audit.
- Plan guest speakers from electric companies, electricians, and energy conservation organizations.

Interpersonal:

- Brainstorm conservation measures in small or large groups.
- Discuss results with parents.

Information:

- Gather power ratings and appliance ratings from individual units and rates from energy sources.
- Identify the appliances which could be cut back or changed to conserve energy.
- Write to electric company for 12-month evaluation of useage for household.

Systems:

- Plan time lines for activities to be completed.
- Predict seasonal changes for electricity consumption.
- Compare energy costs between other energy sources, i.e., gas, geothermal, etc.
- What makes an appliance more efficient.

Technology:

- Word processor for final report.
- Calculators to deal with information.
- Meter reading.
- Spreadsheet to create list.

TIME LINE:

1. Discussion of project. (1 period)
2. Speakers, or field trip. (1-2 periods)
3. Formula preparation. (1-2 periods)
4. Gathering information. (homework: 1 week)
 - a. gathering wattages and appliances
 - b. monthly useages
5. Brainstorm conservation measures. (1/2 period)
6. Letter to company for 12-month data. (1/2 period)
7. Complete conservation program (table). (1 period)
8. Reading meters for 5 days. Use more on weekends? (homework)
9. Implement program and determine effects. (homework)
10. Make predictions on seasonal useage. (1 class)
11. Perform experiments regarding appliance useage with meter. (homework)

MATERIALS:

Guest speakers: teacher
Energy information: resources
Calculators: teacher
Computers: teacher
Pamphlets on alternative energy sources: teacher
Monthly elective statements: students
Tables; speakers: teacher
Markers, paper, scissors
Ratings list by appliance: electric company: teacher

11-9-93

Plan 2b.

UNIT PLAN

Names & Schools: Keith Bobay, B.H.S. South
Natalie Garshaw, Martinsville
Mick Hammett, Edgewood

Subject Areas: Pre-Algebra, Algebra I

Unit of Study: Electricity

Competencies Addressed:

1. Measurement / Operations 2, 5, 8
2. Algebra 3, 4, 5, 7
3. Probability and Statistics 3, 4, 5, 7, 8

11-9-93

Richard Hurt -- B.H.S. North
Scott West -- B.H.S. North

SCANS Activity Worksheet

Age Level: 9 - 12 / Algebra 1-2

Activity Description: Ratios and Proportions: Establish and maintain a lawn using the proper mixes of grass seed and fertilizers. Also provide a scale drawing of the lawn.

Resources:

- Identify professional organizations dealing with lawn care.
- Dictate responsibilities within group.
- Assign budget amount.

Interpersonal:

- Contact and interview professionals in area of lawn care.
- Group discussions on determining viable options.

Information:

- Gather/analyze information from lawn professionals.
- Decide on seed types or mixtures, fertilizer ratios, maintenance schedules.
- Evaluate possible options within a budgeted amount between professional organizations -- or do the job yourself.
- Use a written report to document findings and conclusions.

Systems:

- Develop maintenance schedule based on group decisions.
- If lawns are implemented, monitor lawn progress.
- Develop alternate plans if lawn doesn't take (not established).
- Assess possible environmental impacts by use of fertilizer.

Technology:

- Telephone, phone books, lawn maintenance schedules.
- Word processors, spreadsheets, data bases -- computer printouts.
- Calculators.

TIME LINE:

1. Set up problem, plan tasks, group responsibilities. (1/2 period)
2. Calling/contacting professionals. (1/2 period + homework)
3. Pool, discuss, analyze information gained. (1-2 periods)
4. Teach ratio and proportion calculations (1 period + homework)
5. Calculate/analyze data, write report. (2-3 periods)
6. Feedback from professional lawn organizations. (1 period)

MATERIALS:

1. Telephone books
2. Calculators
3. Computers w/ word processing, spreadsheet, database.
4. Guest speakers.
5. Example report.

11-9-93

UNIT PLAN

Names & Schools: Richard Hurt, B.H.S. NORTH
Scott West, B.H.S. NORTH

Subject Areas: Algebra 1-2

Unit of Study: Ratios and Proportions

Competencies Addressed:

1. Measurement/Operations 1, 2, 3, 4, 5, 7
2. Algebra 1, 2, 3, 5,
3. Geometry/Trigonometry 1, 2, 4, 5
4. Probability/Statistics 3

Timothy Drake, Shakamak
John Toliver, White River Valley
Chris Gehring, White River Valley

11-9-93

Plan #2

SCANS Activity Worksheet

Age Level: High School -- grades 9-12

Activity Description: Using a scaled model of a home, determine: the types of flooring for each room, cost of each flooring material, and an estimate for the total project's cost.

Resources:

1. Determine needed tools for the project.
2. Have a local contractor come in and discuss various flooring options.
3. Allocate group/individual responsibilities.
4. Identify local flooring suppliers.
5. Parents.
6. Local advertisements.

Interpersonal:

1. Determine what floor material to use in each room.
2. Determine the quality of products to be used, keeping in mind the cost.
3. Talk with flooring suppliers concerning quality and costs of materials.
4. Discuss with parents opinions and experiences.

Information:

1. Acquire prices from local ads: television, radio, newspaper.
2. Organize information based upon comparable quality and evaluate prices.
3. Present information to the class in verbal and written forms, give their recommendations, and an explanation of how/why it was reached.

Systems:

1. Make a time line of when a particular stage should be completed.
2. Monitor student progress to determine if everyone is on schedule and task.
3. Determine alternative plans in case of problems.

Technology:

1. Telephone or contact suppliers.
2. Calculator to compute amounts of flooring and costs.
3. Computer to print out findings and recommendations.
4. Photo copying machine.

Time Line:

- Teach: using scale factors, finding areas, unit conversions, computing costs per unit. (2 periods)
- Discuss project, specifying objectives and goals; divide into groups, handout project information. (1/2 - 1 period)
- Guest speaker. (1 period)
- Time for group discussion of options, contacts, and information gathering. (3 periods)
- Compile and analyze information, arrive at a recommendation. (2 periods)
- Prepare for verbal and written presentations of results. (2 periods)
- Presentation to the class. (1/2 period per group)

Materials:

- Phone directory; utilize yellow pages.
- Newspapers.
- Scaled drawing of a house, with scale.
- Access to a computer.
- Access to a photo copier.
- Direction sheet for project including final presentation.
- Rulers, calculators, normal student supplies.

UNIT PLAN

Names & Schools: Timothy Drake, Shakamak
John Toliver, White River Valley
Chris Gehring, White River Valley

Subject Areas: High School Gen. Math, Pre-Algebra, Algebra,
Geometry

Unit of Study: _____

Competencies Addressed:

1. Use estimation to anticipate results, check results, and approximate project costs.
2. Select and utilize appropriate formulas to serve as a problem solving catalyst.
3. Construct ratios, solve proportions, and apply direct variation.
4. Determine measures such as length, perimeter, and area, as well as unit conversion.

Brent McKee - Bedford N. Lawrence
Erma Lowery - Bedford N. Lawrence
Joe Henley - Bedford N. Lawrence

11-9-93

SCANS Activity Worksheet

Age Level: Grades 9-10, Pre-Algebra

Activity Description: Gathering Physical Data to graph, compare, and analyze human measurements using mean, median, and mode to illustrate practical furnishings and automotive design.

Resources:

- Establish group time within class parameters established by teacher.
- Allocate responsibilities to team members.

Interpersonal:

- Communicate with other teams.
- Teaching others new skills.
- Individual attendance improves class product.

Information:

- Gather and organize data.
- Graph and interpret a relationship.
- Using the tools of statistics; mean, median, and mode.

Systems:

- Use tools of statistics to understand how a business uses central tendencies to control inventory.
- Learning of appropriate use of statistical data.

Technology:

- Taking and reading metric measurements.
- Use computer to graph and calculate data.
- Use calculators.

TIME LINE:

1. View video #5 from CORD. Answer questions from video. (1 period)
2. Gather and graph data, measure height and arm span, using metric system. (1 period)
3. Form composite graph from entire class. Enter data onto computer for analysis. (1 period)
4. Teacher instruction on mean, median, and mode. Using graphs. (3 periods + homework)
5. A quiz that presents graph to them and from that they must determine mean, median, and mode. (1 period)

MATERIALS:

Vido
Meter sticks
Graph paper
Data form
Computers with appropriate software
Calculators

11-9-93
Plan #2

UNIT PLAN

Names & Schools: Erma Lowery , Bedford N. Lawrence
 Brent McKee , Bedford N. Lawrence
 Joe Henley , Bedford N. Lawrence

Subject Areas: Pre-Algebra

Unit of Study: Statistics

Competencies Addressed:

1. Measurement/Operations #3, 6, 7
2. Algebra #2, 7, 8
3. Geometry/Trig #2
4. Probability/Statistics #2, 3, 4, 5

11-9-93

Steve Walton -- White River Valley
Rita Cox -- Linton
Jean Seger -- Owen Valley

SCANS Activity Worksheet

Age Level: High School Math: General Math, Business Math,
Pre-Algebra (follow-up project to percent unit)

Activity Description: Students will examine how attendance of students affects the financing of schools. Students will write a report addressed to the school board on reasons for absences and feasible alternatives to increasing student attendance. Students will report what they would like to see purchased with money if there is increased attendance.

Resources:

- Time to obtain information from state and school officials, and time to develop, conduct and analyze student survey.
- Allocate responsibilities to team members.

Interpersonal:

- Contact principal and/or attendance officer.
- Correspond with Department of Education.
- Brainstorm survey questions.
- Contact other schools to see if they have successful attendance incentive programs.

Information:

- Design, gather and analyze information from students (why they are absent, what would motivate them to attend?).
- Determine if there is a pattern to absences (i.e., day of week).
- Decide on how they will present materials.
- Prepare final report for school board.

Systems:

- Plan timelines and establish check points to make sure progress is made.

Technology:

- Telephone
- Calculators
- Computers and appropriate software.

Timeline:

1. Have school official speak about the connection between attendance and school financing.

Have students discuss what they feel are reasons for poor attendance. (1 day)
2. Establish groups and division of labor within groups. (1 day)
3. (2 - 4 days)
 - a. Opinion Poll: Determine questions and when and where poll will be taken.
 - b. School Attendance Percents: Students will contact attendance officer to obtain attendance figures for past month. Students will determine if there are trends in attendance percents based on day of week.
 - c. Group will find and present dollar amounts for different attendance percents (5% increments).
 - d. Group will contact other schools to determine if area schools have existing incentive programs.
 - e. Students will determine what items students would like to see purchased if funds were increased as a result of improving attendance.
4. Students will analyze information and write report. (2 days)
5. Presentation of material to class and follow up on how presentation is perceived. (1 day)

Materials: (either by teacher or students)

1. A copy of state funding formula.
2. Handout on dollar amounts based on 5% increments in attendance percents (either teacher or student obtains).
3. Survey questions.
4. Addresses and/or telephone numbers of area schools.

February 3, 1994

John Toliver -- White River Valley
Steve Walton -- White River Valley
Chris Gehring - White River Valley

Timothy Drake --Shakamak

SCANS Activity Worksheet

Age Level: High school ages, grades 9-12

Activity Description: Studying the lottery: looking at different lotteries and how odds change; set up classroom lottery.

Resources:

- Guest speakers: (1) area lottery director; (2) lottery retailer
- Real lottery tickets
- Allocate group/individual responsibilities
- Parents or other lottery players
- Media: TV, newspapers

Interpersonal:

- Talking with guest speakers.
- Talk with friends and parents about opinions, explaining that the focus is on the probability and we are not recommending play.
- Groups interacting, with work on different aspects.

Information:

- Collect the data or information from the media.
- Ascertain used lottery tickets (which have rules on back).
- Inform students about taxes and payback systems used.
- Present group findings about different lotteries.

Systems:

- Make a time line of when a particular stage should be completed.
- Monitor student progress to determine if everyone is on schedule and task.
- Determine alternative plans.

Technology:

- Computer: use a random number generator.
- Telephone to contact guest speaker.
- Type up findings with recommendations.

Time Line

1. Introduction and review of concepts. (1 period)
2. Guest speaker(s), video of lottery show. (2 periods)
3. Plan and assign various projects and goals. (1/2-1 period)
4. Time for discussion of findings, compiling and analyzing what they have learned. (1-2 periods)
5. Make presentations to class on different lotteries that the groups studied. (1-2 periods)
6. Design a unique lottery for the class. (1 period)
7. Allow the students time to play the simulated lottery. (1 period)

Materials

1. Used lottery tickets
2. Video tape of lottery show
3. VCR and TV
4. Calculators
5. Computers
6. Newspaper
7. Tax tables
8. Written directions for project and final presentation

February 3, 1994

UNIT PLAN

Names & Schools: John Toliver, White River Valley
Chris Gehring, White River Valley
Steve Walton, White River Valley
Timothy Drake, Shakamak

Subject Areas: Applied Math I or II

Unit of Study: Probability

Competencies Addressed:

1. Convert measurements between standard and scientific notation and calculate using scientific notation.
2. Estimate probabilities using simulation and randomness.
3. Make predictions based on analyses of data.
4. Determine and utilize empirical and theoretical probabilities for quality control.

February 3, 1994

Brent McKee Erma Lowery
Joe Henley Mike Jones -- Bedford N. Lawrence
Shari Millikan

SCANS Activity Worksheet

Age Level: Grades 9 - 11, Pre-Algebra

Activity Description: Students will develop a plan for remodeling an existing locker room. This will include determining measurements, area, quantities and price of materials, scale drawings, and make a sales bid presentation.

Resources:

1. Determine tools needed for project.
2. Locate catalogs to order materials.
3. Allocate group and individual responsibilities.
4. Determine local vendors for supplies.
5. Determine two "special features".

Interpersonal:

1. Working as a group to do measurements.
2. Contacting vendors to get bids.
3. Talking to "resources" to determine what is needed.
4. Presentation to committee.

Information:

1. Acquire prices of materials.
2. Organize plan.
3. Develop a scale drawing.
4. Complete forms for identifying resources and interviews.

Systems:

1. Develop a time line of when each step should be completed.
2. Monitor students progress.
3. Determine alternative plans in case of problems.
4. Present it to an authority to help recognize the value of the project.

Technology:

1. Drafting equipment for scale drawings.
2. Calculators to do calculations.
3. Word processors to type reports.
4. Spreadsheet.
5. Have information faxed to school.

Time Line:

1. Take and record measurements. (2 periods)
2. - Develop an accurate and neat floor plan. (1 week
- Make a summary of areas of walls and floors. outside class
- Gather unit costs of carpeting, lockers, work.)
paint, and specialty items.
3. Final drawing of finished project and cost (1 week
summary. outside class
work.)
4. Final sales presentation to class and/or (1 week
athletic director. outside class
work.)

TOTAL POINTS POSSIBLE: 200*

* Bonus points possible for work that is ahead of schedule, accurate, and of superior quality.

Duty 6: Measuring

Tasks:

1. Use the common measurement units for length, area, volume, capacity, and weight in the English system.
2. Use the common measurement units for length, area, volume, capacity, and weight in the metric system.
3. Convert measurement units from one form to another and carry out calculations that involve various measurement units.
4. Read measurements taken with common measuring tools.
5. Use tools to measure quantities and solve problems that involve these measurements.

Duty 8: Measuring

Task:

1. Use the common measurement units for length, area, volume, capacity, and weight in the English system.

Performance Objective:

Given a list of items to measure, correctly choose the English unit needed to measure each item. At least 90% correct will demonstrate competency.

Performance Guide:

1. View CORD video unit 3.
2. Work the sample video problem.
3. Class discussion over the English system.
4. In small groups, identify 5 objects and the corresponding measurement units.
5. Report on group results and discuss alternate units that could be used.

Duty 8: Measuring

Task:

2. Use the common measurement units for length, area, volume, capacity, and weight in the metric system.

Performance Objective:

Given a list of items to measure, correctly choose the metric unit needed to measure each item. At least 90% correct will demonstrate competency.

Performance Guide:

1. Class discussion over the metric system.
2. In small groups, identify 5 objects and the corresponding measurement units.
3. Report on group results and discuss alternate units that could be used.

Duty 8: Measuring

Task:

1. Use the common measurement units for length, area, volume, capacity, and weight in the English system.

Performance Objective:

Given a list of items to measure, correctly choose the English unit needed to measure each item. At least 90% correct will demonstrate competency.

Performance Guide:

1. View CORD video unit 3.
2. Work the sample video problem.
3. Class discussion over the English system.
4. In small groups, identify 5 objects and the corresponding measurement units.
5. Report on group results and discuss alternate units that could be used.

Duty 8: Measuring

Task:

2. Use the common measurement units for length, area, volume, capacity, and weight in the metric system.

Performance Objective:

Given a list of items to measure, correctly choose the metric unit needed to measure each item. At least 90% correct will demonstrate competency.

Performance Guide:

1. Class discussion over the metric system.
2. In small groups, identify 5 objects and the corresponding measurement units.
3. Report on group results and discuss alternate units that could be used.

Duty 8: Measuring

Task:

3. Convert measurement units from one form to another and carry out calculations that involve various measurement units.

Performance Objective:

Given a set of measurements in various units, pick an appropriate method to convert each measurement to a new specified unit. At least 90% correct will demonstrate competency.

Performance Guide:

1. Receive instruction in the relationship between units, the unit conversion ratio method, conversion tables, and metric conversion by changing the decimal placement.
2. In small groups, practice using each conversion method.
3. In small groups, practice solving workplace problems involving computation and conversion methods.

Duty 8: Measuring

Task:

4. Read measurements taken with common measuring tools.

Performance Objective:

Given a set of measuring devices accurately measure to an appropriate tolerance factor a set of items. Measurements of length, area, volume, capacity, and weight in English and/or metric units will be included. At least 90% correct will demonstrate competency.

Performance Guide:

1. Receive instruction in the proper use of rulers, vernier calipers, measuring cups, graduated cylinders, and weighing scales.
2. Measure several lines on a worksheet using a ruler.
3. Working in small groups measure and record the measurements of several objects using the appropriate tools.

Duty 8: Measuring

Task:

5. Use tools to measure quantities and solve problems that involve these measurements.

Performance Objective:

Given a set of problems involving measuring select the appropriate tools, accurately determine the measurements, and then correctly solve the problems. At least 70% correct will demonstrate competency.

Performance Guide:

1. Working in small groups measure lengths and weights and use the measurements in a lab activity.
2. Working in small groups measure capacity and use the measurements in a lab activity.
3. Working in small groups measure lengths and use the measurements in a lab activity to determine area and volumes.
4. Working in small groups solve workplace problems involving measurement.

Rita Cox -- Linton
Mick Hammett -- Edgewood
Natalie Garshaw -- Martinsville

February 3, 1994

SCANS Activity Worksheet

Age Level: Freshman Pre-Algebra, or above.

Activity Description: To plan a concrete basketball court with goals complete with necessary markings (F.T. lane, 3 pt. line, boundaries, etc.).

Resources:

- Time to collect information regarding measurements and lines, and how to figure volume for concrete.
- Allocate responsibilities to team members.
- Time to analyze and write up results.

Interpersonal:

- Discussion as to best approach for gathering information.

Information:

- Gather information needed for actual construction and finishing.

Systems:

- Plan timelines when different tasks must be completed.
- Devise a system to monitor completion of tasks.

Technology:

- Calculators to figure volume and amount of concrete needed.
- Computer, if desired, to draw scale drawing.

Timeline:

1. Discussion of project and necessary research. (1 period)
2. Allocate duties and responsibilities. (1 period)
3. Group research: (1 period)
 - Concrete slab
 - Dimensions: do finish work on lines
 - Goal (post and backboard)
4. Draft and finalize report. Each group chairperson work with others to finalize report. (1 period)
5. Report to class by each group. (1 period)

Materials:

Calculators
Measuring devices (optional)
Phone book
Word processor

February 3, 1994

UNIT PLAN

Names & Schools: Rita Cox , Linton
 Mick Hammett , Edgewood
 Natalie Garshaw , Martinsville

Subject Areas: Pre-Algebra

Unit of Study: Geometry: volume, measurements, shapes

Competencies Addressed:

1. 1, 3, 4, 7
2. 4, 5
3. 1, 2, 3, 4, 5, 6, 7
4. None

Richard Hurt -- B.H.S. North
Scott West -- B.H.S. North
Keith Bobay -- B.H.S. South

February 3, 1994

SCANS Activity Worksheet

Age Level: Algebra 1-2

Activity Description: Collect data from circuit board (voltage, resistance, amperage) and plot data on graph to determine linear relationship. Predict unknown variables ($V=IR$).

Resources:

1. ID and use circuit board and meters.
2. Plan the experiment to hold a variable constant and determine which variables to measure.
3. Organize data in table and graph form.
4. Electric companies/electricians.

Interpersonal:

1. Team of students working together in heterogeneous groups.
2. Divide up working roles/responsibilities/leadership.
3. Contact electricians for data/guest speaker.
4. Set up visit to Hoosier Energy.

Information:

1. Background information on electricity/research?
2. Use algebra skills to interpret and graph data.
3. Group presentation to classes regarding data and predictions.
4. Write up report and plot data.

Systems:

1. Predicting variable response to changing I, V, R.
2. How are variables related? Effect of semi-conductors?
3. Identifying outlines and checking accuracy of data.
4. Knowledge of components of electric transmission.
5. Application in the home.

Technology:

Circuit board, ammeter, voltmeter, ohmmeter
Computer graphics
Graphing calculators
Telephone contacts/Fax

Time line: (1-2 weeks)

1. Field trip to Hoosier Energy (contact Charlie Woods) (1 day)
2. Set up teams, discuss field trip, organize experiment. (1 day)
3. Teacher instruction on graphing linear equations. (2-3 days)
4. Students graph circuit board (I, R, V) data; (1-2 days)
organize and write report, make prediction (analysis).
5. Present findings to class. (1 day)

Materials:

Circuit board and meters (physical science)
Graph paper and straight edge
Calculators
Computer with graphing capability
Transportation to Hoosier Energy
Example report for groups

Competencies:

- | | |
|--------------------------|---------------------|
| 1. Measurement/Operation | 1, 2, 3, 4, 5 |
| 2. Algebra | 1, 2, 3, 4, 5, 7, 8 |
| 3. Geom/Trig | 2, 5 |
| 4. Prob/Stats | 3, 4, 5, 7, 8 |

Timothy Drake -- Shakamak
John Toliver -- WRV
Steve Walton -- WRV
Chris Gehring -- WRV
Rita Cox -- Linton

March 3, 1994

SCANS Activity Worksheet

Age Level: Freshman, Sophomore, Applied Math I or II

Activity Description: Comparison/unit pricing of pizza. Comparisons of Pizza Hut, Big Foot, L. C. Pizza! Pizza!, etc., including: relative sizes, crust amount (perimeter), mass, determine best buy.

Resources:

- Local advertisements
- Local pizza retailers
- Real pizzas from retailers being scrutinized
- Allocate individual and group responsibilities
- Media: television, newspapers
- Home economics department

Interpersonal:

- Group interaction when solving for various information to compare.
- Student discussion concerning fairness in advertising.
- Work together to measure the area of pizzas.
- Group decisions concerning the best value.

Information:

- Information from advertisements from various media.
- Acquire exact prices from retailers from their menus.
- Measure the areas of pizzas being compared.
- Discuss/review methods of finding areas and determining unit prices.
- Present findings and recommendations to the class.

Systems:

- Make a time line for finding specific information.
- Monitor student progress to assure students are on task.
- Predict which retailer gives the best value for the prices based on the conclusions reached.
- Based on group opinion, are other factors (taste, appearance) related to price/unit price.

Technology:

- Calculators
- Telephone (information gathering)
- Fax machine (information gathering)

Time line:

1. Introduction and review of concepts. (1 period)
2. Gathering/organizing information for comparisons. (1 period)
3. Measure actual pizzas and calculate areas, then consume the pizza! (1 period)
4. Calculate: unit prices, comparisons of areas by %. (1 period)
5. Reinforce the calculated results by utilizing other student's examples. (1/2 - 1 period)
6. Discussion of findings, making comparisons, and drawing conclusions. (1 period)

Materials:

1. Advertisements from local retailers.
2. Newspapers.
3. Menus (when able to be acquired).
4. Rulers/tape measures/compass.
5. Calculators.
6. Pizzas.

March 3, 1994

UNIT PLAN

Names & Schools: Timothy Drake, Shakamak
Steve Walton, White River Valley
John Toliver, White River Valley
Chris Gehring, White River Valley
Rita Cox, Linton

Subject Areas: Applied Mathematics I or II

Unit of Study: Measurement/Operations

Competencies Addressed:

1. Measurement/Operations #2, 3, 4
2. Algebra #4, 5
3. Geometry/Trigonometry #1, 2
4. Probability/Statistics #3, 4, 8

Keith Bobay -- BHS South
Becky McGraw -- BHS South
Scott West -- BHS North
Richard Hurt -- BHS North
Mick Hammett -- Edgewood
Jill Radcliffe -- Ivy Tech

March 3, 1994

SCANS Activity Worksheet

Age Level: 9-12 Algebra I, II

Activity Description: The cost of buying, operating and maintaining a used or new vehicle. Analyzing through linear relationships.

Resources:

- Identify what kind of car (new or used).
- Allocate responsibility for finding information about car.
- Identify published resources.
- Government publications (second floor of IU library).
- Newspaper/Wheels and Deals.

Interpersonal:

- Communication with insurance agents, car dealers, mechanics.
- Negotiating, consensus on cars to purchase.
- Guest speaker.
- Deciding on responsibility of specific tasks.

Information:

- Collect data information from published resources/contacts.
- Use algebra skills to interpret and graph data, identify parameters of linear equations.
- Group presentations (reports).

Systems:

- Use algebra skills to predict trends/make comparisons (graphs).
- Identify outcomes and check accuracy of data.
- Compare outcomes to reality (dealer).
- Keep track of operating/maintenance costs of their own family cars.

Technology:

- Telephone
- Graphing calculators
- Computers
- Fax information to school.

Time line:

1. Introduction and review of concepts. (2 periods)
2. Allocation of tasks -- group discussions (2 periods)
(include outside contacts, data collections)
3. Discussion of findings, compiling and analyzing
what they have learned. (2 periods)
4. Presentations or written reports or speaker. (1-2 periods)

Materials:

- Graph paper
- Overhead transparencies
- Calculators (graphing)
- Newspaper: want ads, Wheels and Deals, Trader
- Government publications data (info about vehicles)
- Example report; graph

Competencies:

- | | |
|---------------------------|---------------------|
| 1. Measurement operations | #1, 3 |
| 2. Algebra | #1, 2, 4, 5, 7 8, 9 |
| 3. Geometry/Trigonometry | |
| 4. Probability/Stats | #3, 4, 8 |

E N G L I S H

The following lessons were developed by English teachers who met for four days during the school year.

White River Valley

Don Terrell
Janis Borders
Donna Craig

SCANS Activity Worksheet

Age Level: High School -- all levels.

Activity Description: Compilation and production of a "cook book".

Resources:

1. Brainstorm general topics and task areas.
2. Survey talent (artists, math [nutritional information], topical divisions, production, clerical, etc.).
3. Timeline 1 semester--responsibilities of and in groups.

Interpersonal: Determine scope and sequence for group responsibilities. Group leader responsibilities? Groups coordinator?

Information: Other academic areas, i.e., vocational, home ec, math, and computer app./business lab. models of other types of same genre. Rough drafting of recipes into appropriate format.

Systems: Timeline -- 1 semester
display models
checklist for final recipe
devise strategy for coverage due to absence

Technology:

- typewriter
- word processor
- computer software
- design applications
- printing applications

11-4-93

Plan #1

UNIT PLAN

Names & Schools: Don Terrell, White River Valley
Donna Craig, White River Valley
Janice Borders, White River Valley

Subject Areas: _____

Unit of Study: "Cook Book"

Competencies Addressed:

1. Reading 1, 2, 4, 5, 6, 9, 10
2. Writing 1, 2, 5, 7, 10
3. Speaking 3, 4, 6, 8
4. Listening 1, 2, 3, 4, 6

Expected Student Outcomes:

10-7-93

Bedford N. Lawrence / Eastern

Frank Wintin
Ken Fisher
Jan Peyser

SCANS Activity Worksheet

Age Level: 9th and/or 12th

Activity Description: Create video "How To Get A Job"
product = 10-20 minutes

Resources:

- Brainstorm tasks -- develop task responsibility.

Interpersonal:

- Organize responsibilities -- teamwork -- delegating duties (interviewers, video operators, script writers, editors, trouble shooters...)

Information: students decide what sources to use

May include:

- Newspapers; interviews with potential employers and employees.
- Older students with experience in workplace.
- Sample video; pamphlets.

Systems:

- Set deadlines; editing; daily progress reports.
- Secure facilities for taping; confirmation letters (follow-up communication)
- Final written report and video; class presentation; Desk-Top Publishing for graphics.

Technology:

- Telephone
- Video equipment
- Typing scripts
- Cue cards
- Computers

10/7/93

Bedford N. Lawrence / Eastern

Frank Wintin
Ken Fisher
Jan Peyser

SCANS Activity Worksheet

VIDEO: "HOW TO GET A JOB"

Day 1-2 Introduce Topic:

1. "How are you going to find a job?"
2. Show a "how to" video or parts of others.
3. Look at pamphlets or other materials.

Day 3 Develop Team Action Plan

1. Assign tasks and provide contingencies.
2. Create a list of potential interviewers.
Discuss phone etiquette.
3. Secure necessary equipment.

Day 4 Planning and scheduling interviews.
Monitoring progress. Brief daily reports.

Day 5 Compile results of work to date.

Day 6 Draft questions.
Develop script ideas.
Conduct interviews.

Day 7 Write script.

Day 8-10 Editing and polishing.

10-7-93

Sarah Robinson -- Edgewood
Sue Cull -- Owen Valley

SCANS Activity Worksheet

Age Level: Freshman

Activity Description:

Groups of four or five students work to develop an anthology of children's stories which they plan, write, revise, edit, and publish. Favorite models/examples of "children's" stories will be shared by students in the whole class before groups form to create their part of the anthology (product).

The end product is a publication which will be shared with younger children AND evaluated by those children (as well as evaluated by freshmen peers and their teacher).

Making this product encompasses elements of literature which are utilized in the short story form; working independently and both as a part of a small team and a class-size team; being evaluated for teamwork during the creative project as well as the outcome of the project.

Small groups are formed by "drawing #'s from a hat". We liked the WRV teacher's use of this old, but fair method!

Resources:

Each group needs to decide the genre of its story, what kind of action, setting, etc., will be involved. This is really an important step as the group needs to be comfortable with its direction.

Each student brings a toy to class: animal, truck, doll, etc., which will be incorporated as a character in that group's story.

- Brainstorm tasks which need to be done:
 - a. note-taking
 - b. reporting in more depth after notes
 - c. drafting
 - d. editing
 - e. typing
 - f. illustrating
 - g. format setup
 - h. printing
- Survey the talents of the group.
- Plans and timelines within a two- three-week period, utilize one or two full days at the beginning of the project, half-periods in the middle, and one or two full periods at the end of the project.
- Allocate responsibilities after brainstorming

Interpersonal:

- Groups must brainstorm tasks and DECIDE among their own group members WHAT must be done.
- Ultimately, the small groups must come together as one large group to share AND decide what the total anthology will look like.
- Roles as team members:
 - editing others' work
 - adding to a group's story
 - making "artistic" and practical suggestions for added story interest
- Roles as group leaders as the story grows, evolves...

Information:

- Bringing in samples, examples of children's stories (even "rhymed" stories -- Narrative poems).
- Sharing information by reading aloud (oral interpretation).
- Noting all the things which make a children's story a great one!
 - repetition; funny names
 - talking objects and talking animals
 - suspense; rhyme
 - illustrations
- Using style manuals, spell check, dictionaries, other reference works.
- Review literary elements of short story.

Systems:

- Plan time-frame for task completions within the project time space.
- Daily reports -- notes/oral -- to teachers re: accomplishments.
- Students' questions for teacher? (monitoring)
- Teachers' questions for students? (monitoring)
- Have alternate plans developed.
- Have alternate student personnel in place for absences.

Time line:

- 2 days Intro: 1 day to explain project.
 1 day to present oral interpretation
 of sample children's stories in class.
- 1 day brainstorming in small group in class, using animals and toys
- 1 day reviewing elements of the short story
- 4 days working on stories and turning in drafts, designing
anthology covers, etc.
- 2 days editing, re-reading in groups, placement/format, etc.
- 3 days computer lab
- 1 day re-editing
- 2 days computer corrections, finalizing
- 1 day of final proof-reading
- 2 days printing/assembling

19 class days

10-7-93

UNIT PLAN

Names & Schools: Sarah Robinson, Edgewood
Sue Cull, Owen Valley

Subject Areas: English

Unit of Study: Children's Stories: Write, Edit, Publish

Competencies Addressed:

1. Reading #2, 5, 8, 9, 10
2. Writing #1, 3, 5, 6, 10
3. Speaking #1, 2, 5, 8
4. Listening #2, 5

Expected Student Outcomes:

1. Note-taking during brainstorming sessions.
2. Drafting, editing, typing of stories.
3. Illustrating the product, format setup, printing the stories.
4. Peer-teacher evaluation, presentation of stories to younger children wherever possible.

Evaluation Techniques and Standards for Assessing Attainment of Competencies:

1. Meeting various deadlines for project.
2. Using standard English in both written and oral presentations.
3. Seeing a finished story -- especially the format and (if applicable) illustrations appropriate to the story.
4. Teacher evaluation.
5. Peer response to presentations (if applicable).
6. Response of younger children to stories.
7. Teacher observation of group interactions/dynamics.

Bloomfield

10-7-93
Rhonda Burch
Kayla Hale
Chris Maddox

SCANS Activity Worksheet

Age Level: Sophomore/Junior

Activity Description: Expansion of short story characters understanding via small group interviews, library research, written summaries and oral in-class presentations.

1. three typed interviews with professionals in authority positions
2. oral presentation of combined interview results focusing on conflict, interpersonal relations, who resolves conflict, etc.
3. role-playing situation: students create a new antagonist for one story based on fictional and real world characters, or
4. students change a protagonist's response and anticipate plot changes

Resources: Three-person group chooses secretary, (three) stories, allocation of time for various parts of project: reading, discussion, preparation of questions, typing, editing.

Interpersonal: Decide which member assumes which responsibilities. Each group has a leader and member position:

1. Recording secretary, develop plan for timeline, peer editing
2. Typing, peer editing, leader of discussions
3. Facilitator of oral presentation, peer editor

Information: Discuss stories focusing on character, formulate interview questions, edit questions.

Systems: Arrange personal schedules
Monitor schedule
Develop alternate plans for absences
Schedule interviews
Schedule computer lab

Technology: Typing: word processor
Recorder: tape or video recording of interviews
VCR: viewing of short stories and professional interviewing techniques

- Supplemental Materials:
- collection of short stories *
 - sample character sketches
 - example of professional interview
 - mini lesson on summarizing skills

- * Red Headed League -- Sherlock Holms Galsworthy
- "Shaving"
 - "Quality"
 - "The Laughter"
 - "Woman Who Had No Prejudices"
 - "Bedquilt"
 - "Mammon and the Archer"
 - "Luck"

TIME LINE

- Day 1-3 - Present assignment.
- Select or assign groups.
- Groups select secretary and browse anthologies.
- Decide on three stories.
- Day 4 - Reading and discussing of selected stories.
- Day 5 - Lesson presenting professional interview models.
- Brainstorm for appropriate interview questions.
- Discuss appropriate interviewees (professional in authority position).
- Brainstorm list of interviewees.
- Mini lesson on telephone manners.
- Day 6 - Make appointments for interviews. (Give students phone accessibility.)
- Day 7-11 - Mini lesson on analyzing and summarizing.
- Create role-play.
- Plan presentation, peer editing.
- Type interviews.
- Day 12 - Oral presentation of interview results.
- Turn in typed interview
- Day 13 - Finalize and rehearse role playing.
- Day 14-15 - Present role play.

October 7, 1993

UNIT PLAN

Names & Schools: Rhonda Burch , Bloomfield
 Kayla Hale , Bloomfield
 Chris Maddox , Bloomfield

Subject Areas: _____

Unit of Study: _____

Competencies Addressed:

1. Reading #8, 1, 6, 7
2. Writing #1, 2, 7, 8, 10
3. Speaking #1, 2, 3, 4, 5, 8
4. Listening #1, 2, 3, 4, 5, 6

Expected Student Outcomes:

1. Conduct interview -- beginning level.
2. Use of correct telephone "manners".
3. Formulate interview questions.
4. Present material to a group with accepted delivery style.

10-7-93

Cindy Garnsey
Lori Vandevanter -- Linton-Stockton
Chantel Carpenter

Donna Gorby -- Shakamak

SCANS Activity Worksheet

Age Level: 11th Grade -- Juniors

Activity Description: 5-10 minute video presentation newscast.

Resources:

1. Choose their "news" -- current affairs, school, national, etc.
2. Choose which reporter will cover which story.
3. Time management of meeting deadlines for script, final product, etc.
4. Analyze tapes/segments of newscasts.

Interpersonal:

1. Students will work with 4 students per group. They will cooperate as they plan, produce, and present their newscast.
2. In group, students will brainstorm about story ideas.
3. Students will teach each other about the video equipment, the assignment qualifications, their performances, etc..
4. Students will negotiate about the stories, the production assembly, etc..

Information:

1. Interviewing for live broadcast or for other formats that students choose.
2. Collect newspapers to look for story ideas.
3. Collect tapes of actual newscasts to evaluate what everyone needs to do.

Systems:

1. Make organizational chart of who is taping, when newscast is on, etc.
2. Decide where to keep sources, equipment, etc..
3. What happens if someone doesn't show?

Technology:

1. Computer to write stories and create charts (visuals).
2. Camera to video tape the newscast.
3. VCR/TV to show the newscast.
4. Telephone for setting interviews.

BROADCAST NEWS

DIRECTIONS: In order to be fully prepared for our project, please complete the following chart.

REPORTER	CAMERA	DIRECTOR	HEADLINE OF NEWS	PROPS	OTHER

DIRECTIONS: Please draw a small diagram of your newsroom set and its equipment in the area below. **PROPS WHO'S NEEDED SUPPLYING**

Broadcast News

Rundown Sheet

Time

Camera Notes

Newscast order

A look Back at.....Broadcast News

Please read all of this handout prior to writing.

We have spent over 8 days on our "Broadcast News" project. I truly hope that this experience has been a learning one for you. We covered basic planning of stories, production, directing, visual aid production, and of course, reporting. Please take a few minutes and think about all the parts of this project and tell me about your experience. In **4 well-written paragraphs**, please discuss the following content areas. Each paragraph should have a topic sentence explaining the main content idea of that paragraph. I will be grading for this specifically as well as grammatical/mechanical correctness.

Paragraph #1

- *Rate the guest speakers from Channel 10 and Channel 2 and discuss why you rated them the way you did.

Paragraph #2

- *What was your favorite part of this project?
- *What was the most difficult part of this project?

Paragraph #3

- *Without mentioning any names specifically, discuss how your group worked together. Explain any problems that occurred or good things.

Paragraph #4

- *Give me any advice on changes that should be made if I decide to do this project again with another class. Tell me things that went very well and things that I really should change. You are now the experts on this project and I would appreciate your advice.
Thanks.

An example topic sentence for paragraph #1 might be the following:

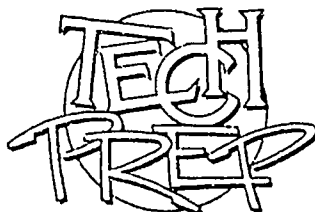
On Wednesday, Oct. 27, 1993, Patrece Dayton and Mike Dunn came to Linton-Stockton High School as guest speakers.
(7th period saw Tom McClanahan and Jamie O'Connell)

You may use this example in your paragraphs; however, be sure to include topic sentences in your other 3 paragraphs. Work on these today in class if you're finished taping. The final drafts will be due Friday at the end of class.

Pt value — 20 pts

handwritten may be single spaced
typed must be double spaced

7.1



Lori Vandevanter
Chantel Carpenter
Cindy Garnsey
Donna Gorby

10/7/93

Unit Plan

Names & Schools: Linton-Stockton, Shakamak

Subject Areas: English

Unit of Study: Media Newscast

Competencies Addressed:

(Please consider the Indiana State Tech Prep Competencies, the SCANS Competencies, Essential Skills Content Standards, Indiana Department of Education Proficiency Guide and others.)

1. Reading -- 1, 2, 4, 5, 6, 7, 9, 10
2. Writing -- 1, 2, 3, 5, 7, 8, 10
3. Speaking -- 1, 2, 3, 4, 5, 6, 8
4. Listening -- 1, 2, 3, 4, 5, 6

Expected Student Outcomes:

(What will students be able to do and at what level? Is it significant, measurable, realistic, achievable?)

1. * choose news story(s) appropriate for newscast.
* analyse segments of professional newscasts.
2. * edit written and oral copy.
* meet chosen deadlines.
3. * exhibit interpersonal skills such as working with others, brain-
storming, and teaching others.
4. * exhibit correct interviewing and research skills.
* create organizational chart showing job responsibilities and
alternative strategies.
* create and present 5-10 minute newscast on VHS tape.

Evaluation Techniques and Standards for Assessing Attainment of Competencies:

(How will you know when the students have attained competence and what assessment methods will be used? e.g. paper/pencil, group activities, individual project, exhibition)

Individual assessment:

* meeting deadlines

* written script

* oral presentation

* participation

Group assessment:

* final production grade -- teacher

* class evaluation of group -- students

Outline of Unit: (Begin unit on a Monday)

1. Teacher presenting basic information and analysis of video newscasts. (1 day)
2. Guest speaker(s). (1 day)
3. Group brainstorming and organizing. (1-2 days)
4. Preparing newscopy. (brief classtime plus homework)
5. Creating visual aids and typed copy and dress rehearsal and production. (one week)
6. Video presentation and evaluation. (2 days)
7. If feasible, field trip to news station.

Teaching Methods: _____

lecture

guest speaker

modeling

peer teaching

cooperative learning

Teaching Materials & Resources: _____

newspapers

overhead projector/screen

guest speaker

evaluation checklists

model scripts

TV/VCR

video of newscasts

maps for weather

blank tapes

pointer

video cameras

computers

visual aids

Examples of Workplace Applications: _____

News broadcasting -- TV or radio

cameraman

reporters

stage managing

directing

graphic artist

copy/video editor

meteorologist

How will team teaching and / or the integration of subject areas be facilitated? _____

Science -- meteorologist

Speech -- presentation skills

Business -- word processing and charts

Journalism - interviewing skills

Art -- graphics

Other comments: _____

SCANS Activity Worksheet

Age Level: Grades 9 - 10

Activity Description: JOBS Ltd: An independent/group jobs project = creating "real" businesses (whose corporate headquarters are based in the classroom).

1. Each student will decide which of the following businesses he will help create and work within:
 - a. Baby-sitting service
 - b. Pet Care/Sitting Service (feeding, walking, grooming)
 - c. Plant Sitter (caretaker)
 - d. Leaf-raking/lawn care service
 - e. Light cleaning (dusting, vaccuming)
 - f. Dishes
 - g. Laundry Service (washing, folding)
 - h. Handwaxing cars (Attention to details!)
 - i. Other such services ...

2. Students who join together to create a business will decide:
 - a. Exactly what services their business will provide;
 - b. Exact fees to be charged for these services;
 - c. Hours/days these services will be available;
 - d. Transportation problems which need to be addressed.

Resources: Market research must be done -- area newspapers, area phone book, auto-shop teacher, family living (home ec.) teacher, horticulture teacher/department, economics teacher, school library resources, public library resources.

Interpersonal:

- A. Teamwork devoted to the success of its own business -- sharing experiences, information with others in the group. How can we best serve our clients? Consensus among members? What are the strengths of each member? Weaknesses? How can we capitalize on the strengths within the group? Will there be officers? How will labor be divided? Can we successfully work out problems within the group?

- B. What are your interpersonal skills: Oral, written, visual acumen? Personal appearance self-check.

- C. Market research -- survey for demand, listing of individual companies which provide the service, cost analysis, start-up costs involved, fees charged in "outside" businesses, what will the market bear?

- D. Scheduling: Days, hours services will be available.

- E. Starter activity: Discuss and list advantages of employment of students by local business compared with being employed in your own business.
- F. Develop a resume (each student).

Information:

- A. Actual advertisement costs, handbill costs, posters in schools, groceries, public bulletin boards, radio, TV.
- B. Equipment involved?
Supplies needed?
- C. Start-up costs?
- D. How will you evaluate yourself/your own contribution to the business? How can your teacher aid in your self-evaluation/your group's success quotient?

Systems: Evaluate.

Discuss things which have worked well; things which have NOT worked. (Be prepared for things which will not, cannot work!)
It's OK.

Correct off-course areas which can be improved.

Technology:

Computer lab for:

- Resume
- Ads (if advertising is used)
- Flyer for each business
- Logo for each business

Classroom for:

Miscellaneous preparations and meetings.

Time Line:

Two to three weeks of class-days to organize. The businesses would be on-going and an appointed time (every two or three weeks [?]) would be set up for membes of each business to meet. One school year? One semester?

UNIT PLAN

Names & Schools: Linda Ellis, Martinsville
Sarah Robinson, Edgewood

Subject Areas: _____

Unit of Study: _____

Competencies Addressed:

1. Reading #2, 4, 5, 7, 8, 9, 10
2. Writing #1, 2, 3, 4, 5, 6, 7, 8, 9, 10
3. Speaking #1, 2, 3, 4, 6, 7, 8
4. Listening #1, 3, 4, 5

SCANS Activity Worksheet

Age Level: Sophomores

Activity Description: After studying all or part of A Night to Remember, students will research related topics and issues in preparation for a simulated jury trial to determine fault and or liability in a class action suit. Teams will be established to prepare for roles of survivors, witnesses for plaintiffs and defendant, etc.

Resources:

1. Decision of format of trial
2. Talents, roles, and interests of group members
3. Plans and timelines
4. Allocation of appropriate roles and responsibilities
5. Information available on topic

Interpersonal:

1. Brainstorming tasks and roles
2. Constructive interactions of team members
3. Responsibly fulfilling assigned roles
4. Constructive criticism of roles and of role playing practice

Information:

Teacher supplied articles and student research related to sinking of Titanic and surrounding events to be analyzed and mined for conversion to courtroom scene.

Systems:

1. Plan timelines both at entire class and team levels.
2. Devise systems for monitoring progress.
3. Developing contingency plans.
4. Devise systems for trial preparation and practice.

Technology:

1. Use of audio and video equipment in and of trial.
2. Use of information retrieval technology.
3. Evaluation of technical information concerning the disaster.
4. Use of typewriter and/or word processing for speeches.

TIME LINE

1. Read and discuss from A Time To Remember. (1 day)
2. Give overview of project. (1/2 day)
3. Study and evaluate teacher supplied articles. (2 days)
4. Decide on format of trial. (1/2 day)
5. Survey talents, interests, and preferences of student in relationship of roles and teams. (1/2 day)
6. In teams, decide on best approach to prepare team for trial, distribute roles and responsibilities. Establish time line. (2 days)
7. Further preparation for and practice of trial roles. (3 days)
8. Mock trial. (1-2 days)
9. Jury deliberation, verdict, and debriefing for the media. (1 day)

MATERIALS:

Teacher supplied articles.
Audio and video equipment.
Overview of project expectations.
Access to word processing and copying equipment.

Competencies Addressed:

- | | |
|--------------|----------------------|
| 1. Reading | #1, 2, 3, 4, 5, 7, 9 |
| 2. Writing | #1, 2, 3, 4, 8, 10 |
| 3. Speaking | #1, 2, 3, 4, 6, 8 |
| 4. Listening | #1, 2, 4, 5 |

11-4-93

Bloomfield

Rhonda Burch
Kayla Hale
Chris Maddox

SCANS Activity Worksheet

Age Level: Sophomore/Junior/Senior

Activity Description: Students will read and analyze several sample biographies and autobiographies with attention to the effect of relationships and life experiences on career choices; write an autobiographical piece; and as a final product, compile a book of biographical sketches.

Resources:

- Students identify own interest by choice of career and biographies.
- Organize time, organize system for reading, analyzing, and note taking.

Interpersonal:

- Work within a small group sharing responsibilities, conferencing, editing.
- Work within a large group to negotiate and select jobs.

Information:

- Select biographies according to purpose or theme.
- Scan, take notes, interpret, analyze and reorganize information for original writing.

Systems:

- Arrange personal schedules.
- Monitor schedule.

Technology:

- Use of word processor, copy machine, and any other resource needed (or provided by school system) for publication of final project.

UNIT PLAN

Names and Schools: Rhonda Burch , Bloomfield
Kayla Hale , Bloomfield

Subject Areas: English , _____

Unit of Study: Biography / Autobiography

Competencies Addressed:

1. Reading 1, 2, 5, 7, 8, 9, 10
2. Writing 1, 3, 8, 10
3. Speaking 2, 3, 4, 5, 8
4. Listening 1, 2, 3, 4, 5, 6

Expected Student Outcomes:

1. Choose appropriate biographies and autobiographies.
2. Analyze biography/autobiography for pertinent information.
3. Edit written copy.
4. Meet deadlines.
5. Exhibit interpersonal skills (working with others, allocation of duties within groups, teaching others).
6. Exhibit research and selection skills.
7. Write an autobiographical piece.

Evaluation Techniques and Standards for Assessing Attainment of Competencies:

1. Meeting deadlines.
2. Use of standard grammatical rules in written work.
3. Completion of booklet following assignment requirements.

Outline of Unit:

Days 1-3: Read and discuss teacher (short) autobiography and biography on "timely" jobs focusing on how life experiences affected professional choices.

Days 4-6: Students write and type autobiographies focusing on negative and/or positive experiences and people in their life that they think will affect their job choice.

Days 7-9: Mini lesson on bibliography.
 Student groups select career and find three autob/
 biog..
 Research, read, discuss, compile, analyze.

Days 10-12: Write, edit, type biographies on the three chosen people. (Monitor use of time and progress.)
 Hand in biographies for teacher evaluation.

- Day 13: Revise and retype biographies.
- Day 14-16: Students choose a group to be in.
Groups (Cover-original artwork, Table of Contents,
Preface, Organization, Bibliography, Publication)
Each group plans strategies and allocates duties.
Compile, organize, publish booklet of biographies.

Teaching Materials and Resources:

Biography/autobiography suggestions: Angelon, Asimov, Einstein, Dickinson, Bradberry, B. Knight, M. Mantle, S. King, E. Wiesel, G. Paulsen, etc..

Example of bibliography.

Linton / Shakamak

11-4-93

Cindy Garnsey
Lori Vandeventer
Donna Gorby

SCANS Activity Worksheet

Age Level: Freshman

Activity Description: Using Module 7, "Giving and Following Directions"; Lesson 6, "Creating Written Directions".

Resources:

- Students will meet deadlines.
- In pairs, they will assess map reading abilities to complete task and provide feedback.

Interpersonal:

- Participates with a partner.
- Teaches map reading skills to partner.
- Exercise leadership to create handbill, decide on route and complete oral presentation.

Information:

- Learn to interpolate all facets of a map.
- Organize what they've learned into written directions.
- Interpret graphic data.

Systems:

- Understand and recognize organized state road systems.

Technology:

- Use computer to create handbill thus utilizing word processing and graphic arts skills.

TIME LINE

Day 1:

1. Domino pattern replication.
2. Brainstorm -- where we need to know how to give/take directions.
3. Video -- (911 call) from Applied Communications Module 7.
4. Discuss video -- positive and negative aspects of characters' giving/taking direction skills.

Day 2:

1. Go over Lesson 2 and Lesson 5 handouts (Module 7).

Day 3:

1. Complete Lesson 5.
2. Read story out of lit. book -- choose story incorporating direction giving in the workplace.
3. Write letter to character giving directions (apply to own story).

Day 4:

1. Go over written directions -- Lesson 6, pp. 45-50.
2. Revise snow storm letter according to criteria given in Lesson 6.

Day 5:

1. Begin maps:
 - how to find towns
 - legend (N, S, E, W)
 - how to find mileage
 - how to find exits, landmarks, hospitals, etc.
 - types of highways
 - population of towns
 - #20 -- lakes, rivers, etc.

Day 6:

1. Put in pairs.
2. Make assignments final product handbill w/directions.
(From Linton to _____ to attend an event. Students draw out of hat to see where they are going.)
3. Pairs must decide: event to be attended/layout of hand bill.
4. Teacher gives:
 - destination from Linton
 - criteria for handbill
 - miles to and from
 - what kind of roads
 - the time it will take you for gas stops, eating, etc.
 - 5 landmarks passed
 - which roads to take
 - mechanics
 - layout

Day 7-8:

1. Workday
2. Typing

Day 9:

1. Typing

Day 10:

1. Present handbill and show course/itinerary (oral directions), each speaks equally to evaluate oral directions.

UNIT PLAN

Names & Schools: Cindy Garnsey, Linton
Lori Vandeventer, Linton
Donna Gorby, Shakamak

Subject Areas: English

Unit of Study: Following and Giving Directions, Module 7

Competencies Addressed:

1. Reading 1, 3, 8, 9
2. Writing 1, 2, 3, 5, 10
3. Speaking 1, 2, 3, 4, 5, 6, 8
4. Listening 1, 5, 6

Expected Student Outcomes:

- They will learn how to give and receive oral directions.
- Read story about workplace and give written directions to a character.
- Learn how to write effective directions.
- Learn how to read a map.
- Create a handbill giving accurate directions from one point to another on an Indiana state map.
- Oral presentation of itinerary.

Evaluation Techniques and Standards for Assessing Attainment of Competencies:

- Evaluate letter written to literary character (individual).
- Grade final handbill according to criteria on time line.
- Evaluate oral presentation based on information from Lesson 5 in Module 7.

Outline of Unit:

See time line.

Teaching Methods:

Lecture	Video
Modeling	Peer teaching
Cooperative learning	

Teaching Materials & Resources:

Indiana maps
Module 7 -- Following and Giving Directions
Video of Module 7
Computers
Literature book for short story
Dominoes
Student assignment sheet
Practice sheet for map skills
Evaluation check list

Examples of Workplace Applications:

Every facet of life:

truck driver
salesman
bus driver
chef
travel agent

How will team teaching and/or the integration of subject areas be facilitated?

Geography -- map skills
Business -- word processing
Arts -- graphics, handbill
Speech -- presentation skills
Math -- computing mileage

Eastern / Bedford N. Lawrence

11-4-93

Jan Peyser
Frank Wintin
Kenn Fisher

SCANS Activity Worksheet

Age Level: High School

Activity Description: "Off The Beaten Path" -- a travel guide of hometown highlights for residents of _____ county.

Resources:

- Brainstorm tasks
- Develop task responsibilities
- Identify potential resources: possibilities include:
 - Historical Society
 - Library
 - Chamber of Commerce
 - Long-time residents
 - Local Government
 - Museums

Interpersonal:

- Organize responsibilities
- Delegate duties: writers
interviewers
editors
- researchers
photographers/still
lay-out design

Information:

- Students decide what sources to use.
- See Resources
- Other tourist guides & videos

Systems:

- Set deadlines
- Editing
- Brief daily progress reports
- Follow-up communication

Technology:

- Telephone
- Photography equipment
- Word processor
- Photo copy machine

TIME LINE

Day 1 Introduce Topic:

1. "Where do you go when there's 'nowhere' to go?"
2. Show sample guides and videos.
3. Discuss local region and possible attractions

Day 2 Develop Team Action Plan

1. Assign tasks and provide contingencies
2. Create a list of potential sights and activities
3. Secure necessary equipment

Day 3 Plan and Schedule Site Locations

1. Plan interviews: residents, chamber of commerce, etc.
2. Monitor progress
3. Brief daily reports

Day 4-5 Compile results of work to date.

Day 6 Write copy and begin lay-out design

Day 7-10 Edit copy, photography

Day 11-15 Complete lay-out design and begin production of final product.

UNIT PLAN

Names & Schools: Jan Peyser, Eastern
Frank Winton, Bedford N. Lawrence
Kenn Fisher, Bedford N. Lawrence

Subject Areas: English - ART

Unit of Study: "Tourist Guide" for local residents.

Competencies Addressed:

1. Reading 1, 2, 3, 4, 5, 6, 7, 8, 9, 10
2. Writing 1, 2, 3, 4, 5, 6, 7, 8, 10
3. Speaking 1, 2, 3, 4, 6, 8
4. Listening 1, 2, 3, 4, 5, 6

Expected Student Outcomes:

1. Analyze information gathered from research and interviews -- analyze sample tour guides.
2. Write daily progress reports. Edit written copy and meet chosen deadlines.
3. Exhibit interpersonal skills: teamwork, brainstorming, teaching others.
4. Exhibit correct interviewing and research skills.

Evaluation Techniques and Standards for Assessing Attainment of Competencies:

written copy
 oral presentation
 specified participation
 meeting deadlines

Outline of Unit:Teaching Methods:

Lecture
 Group participation
 Other student created projects

Teaching Materials & Resources:

Newspapers	Interviews
Telephone	Sample tourist guides
Computer	Photography equipment

How will team teaching and/or the integration of subject areas be facilitated?

Speech -- presentation skills
Business -- word processing
Journalism -- interviewing skills
Communication technology:
 video camera skills
 technical writing
Art

10-7-93

Bedford N. Lawrence / Eastern

Frank Wintin
Ken Fisher
Jan Peyser

SCANS Activity Worksheet

Age Level: 9th and/or 12th

Activity Description: Create video "How To Get A Job"
product = 10-20 minutes

Resources:

- Brainstorm tasks -- develop task responsibility.

Interpersonal:

- Organize responsibilities -- teamwork -- delegating duties (interviewers, video operators, script writers, editors, trouble shooters...)

Information: students decide what sources to use

May include:

- Newspapers; interviews with potential employers and employees.
- Older students with experience in workplace.
- Sample video; pamphlets.

Systems:

- Set deadlines; editing; daily progress reports.
- Secure facilities for taping; confirmation letters (follow-up communication)
- Final written report and video; class presentation; Desk-Top Publishing for graphics.

Technology:

- Telephone
- Video equipment
- Typing scripts
- Cue cards
- Computers

VIDEO: "HOW TO GET A JOB"

Time Line

Day 1-2 Introduce Topic:

1. "How are you going to find a job?"
2. Show a "how to" video or parts of others.
3. Look at pamphlets or other materials.

Day 3 Develop Team Action Plan

1. Assign tasks and provide contingencies.
2. Create a list of potential interviewers.
Discuss phone etiquette.
3. Secure necessary equipment.

Day 4 Planning and scheduling interviews.
Monitoring progress. Brief daily reports.

Day 5 Compile results of work to date.

Day 6 Draft questions.
Develop script ideas.
Conduct interviews.

Day 7 Write script.

Day 8-10 Editing and polishing.

UNIT PLAN

Names & Schools: Jan Peyser, Eastern
Frank Wintin, Bedford N. Lawrence
Ken Fisher, Bedford N. Lawrence

Subject Areas: English

Unit of Study: "How to Get A Job" (product = video)

Competencies Addressed:

1. Reading 1, 2, 3, 4, 5, 6, 7, 9, 10
2. Writing 1, 2, 3, 4, 5, 7, 8, 9, 10
3. Speaking 1, 2, 3, 4, 5, 6, 7, 8,
4. Listening 1, 2, 3, 4, 5, 6

Expected Student Outcomes:

- Analyze information gathered from research and interviews
- Analyze sample video
- Write daily progress reports
- Edit written copy
- Meet chosen deadlines
- Edit oral copy
- Exhibit interpersonal skills: teamwork, brainstorming, teaching others
- Exhibit correct interviewing and research skills

Evaluation Techniques and Standards for Assessing Attainment of Competencies:

written script
oral presentation
specified participation
meeting deadlines

Outline of Unit:

- Day 1-2 Introduce Topic
1. "How are you going to find a job?"
 2. Show a "how to" video or parts of others
 3. Look at pamphlets or other materials
- Day 3 Develop Team Action Plan
1. Assign tasks and provide contingencies
 2. Create a list of potential interviewers
 3. Discuss phone etiquette
 4. Secure necessary equipment
- Day 4 Planning and Scheduling interviews.
Monitoring progress. Brief daily reports.

Day 5 Compile results of work to date.

Day 6

Day 7 Write script.

Day 8-10

Teaching Methods:

Lecture
Former students as guest speakers
Sample video
Other student-created projects
Group participation

Teaching Materials & Resources:

Newspapers
Interviews
Older students with experience in workplace
Sample video(s)
Pamphlets
Telephone
Video equipment
Typewriter; cue cards, computer

Examples of Workplace Applications

TV broadcasting
Feature reporting
Cameraman
Job counseling
Directing
Advertising
Copy/video editor
Personnel director

How will team teaching and/or the integration of subject areas be facilitated?

Speech -- presentation skills
Business -- word processing and materials
Journalism -- interviewing skills
Communication Technology -- video camera skills; technical writing

11-4-93

White River Valley

Don Terrell
Donna Craig
Janice Borders

SCANS Activity Worksheet

Age Level: High School -- all levels

Activity Description: Compilation and Production of a Consumer Guide to (health care products)

Resources:

1. Brainstorm categories of health care products; identify task areas and individual talents:
first-aid cold remedies
skin care hair care
baby care personal hygiene
2. Survey individual interests
3. Time line -- several weeks (8-10)
4. Terms and warnings applicable to product areas.

Interpersonal:

1. Works with others in groups.
2. Determine individual responsibilities.
3. Determine group responsibilities/leadership and coordination

Information: Students brainstorm potential sources of information.

1. Academic -- computer apps., vocational H.E., library, school nurse, health
2. Business/Professional -- drug stores, physicians, retail outlets, hospitals, health care facilities, cosmetologists, manufacturing reps..

Systems:

1. Evaluation instruments:
production -- final product
interpersonal -- group participation
academic -- test from information in project
2. Monitoring advertising trends

Technology:

1. typewriter/word processor
2. graphic design software
3. copying/production equipment
4. calculator

11-4-93
Plan #2

UNIT PLAN

Names & Schools: Don Terrell, White River Valley
Donna Craig, White River Valley
Janice Borders, White River Valley

Subject Areas: Language Arts

Unit of Study: Consumer Guide to Health Care Products

Competencies Addressed:

1. Reading 1, 2, 3, 4, 5, 7, 9, 10
2. Writing 1, 2, 5, 6, 7, 8, 9, 10
3. Speaking 1, 3, 4, 6, 8
4. Listening 1, 2, 6

11-4-93

White River Valley

Don Terrell
Donna Craig
Janice Borders

SCANS Activity Worksheet

Age Level: High School -- grade 12

Activity Description: Evolution of Education in _____ County.
Product: Display for student/community view.

Resources:

1. Identify general topics and products.
2. Identify and coordinate group tasks.
3. Identify sources/repositories of information.

Interpersonal:

1. working with others on teams
2. interacting with other teams
3. exercising leadership/management skills
4. interviewing

Information: Students identify and utilize sources of information:

- | | |
|-------------------------|-------------------|
| 1. family | 5. county records |
| 2. libraries | 6. school records |
| 3. retired teachers | 7. artifacts |
| 4. historical societies | a. photos |
| a. local | b. old texts |
| b. regional | c. memorabilia |
| c. state | |

Systems:

1. Monitoring trends in education
 - a. historical progress
 - architecture
 - institutional names/mascots
 - curriculum
 - other educ. services
 - extracurricular activities
2. Evaluation of project goals.
 - a. time line 9-12 weeks
 - b. group responsibilities via charting

Technology:

35mm camera/darkroom	typewriter
video camera	graphic design
construction technology	archival preservation
computers: word processing and CAD	

11-4-93

Plan #3

UNIT PLAN

Names and Schools: Don Terrell, White River Valley
Donna Craig, White River Valley
Janice Borders, White River Valley

Subject Areas: _____

Unit of Study: Evolution of Education in Greene County

Competencies Addressed:

1. Reading 5, 9, 10
2. Writing 1, 5, 7
3. Speaking 1, 2, 3, 8
4. Listening 1, 6

February 1, 1994

Kayla Hale
Rhonda Burch -- Bloomfield
Chris Mattox

Sarah Robinson -- Edgewood

SCANS Activity Worksheet

Age Level: Sophomore/Junior

Activity Description: Speaking in the Workplace
Module 1, Lesson 4

Resources:

- Students identify the need for oral communication in the workplace.
- Students will organize both written and visual materials.
- Students will plan a poster.
- Students write paragraph and a speech.

Interpersonal:

Students will work together to make their posters by sharing responsibilities. They will evaluate the posters and speeches.

Information:

Students acquire, interpret, communicate, organize both written and oral material for poster.

Systems:

- Students make arrangements in personal schedule to complete tasks.
- Students work with librarian and teacher.
- Students work within small group as a system. (Consult art department.)

Technology:

- Use of computer to retain information - if applicable - to prepare information.
- Use of microfilm.
- Xerox machine.
- Photography.

February 1, 1994

UNIT PLAN

Names & Schools: Kayla Hale, Bloomfield
Rhonda Burch, Bloomfield
Chris Mattc., Bloomfield
Sarah Robinson, Edgewood

Subject Areas: English

Unit of Study: Speaking in the Workplace

Competencies Addressed:

1. Reading 1, 3, 4, 5, 7, 9, 10
2. Writing 1, 2, 3, 5, 10
3. Speaking 1, 2, 3, 4, 5, 6, 8
4. Listening 1, 2, 3, 4, 5, 6

Expected Student Outcomes:

1. Identify fears in public speaking and offer solutions.
2. Identify and use five patterns of organization.
3. Identify and use cue words (signal or transitional words).
4. Identify, produce and use several types of visual aids.
5. Draft, revise, peer editing and evaluation.
6. Prepare and deliver speech.

Evaluation Techniques and Standards for Assessing Attainment of Competencies:

1. Identify and meet deadlines.
2. Meet teacher/workplace criteria for paragraphs, speech, visual aids and posters.

Outline of Unit:

Day 1:

Read and discuss "Speaking in the Workplace" pp. 23-24; list student fears and discuss solutions on board.

Day 2:

Handout - "Why Stage Fright Occurs". Read and discuss. Read and discuss chart "Symptoms & Solutions".

Day 3:

Students (small groups) plan a poster on "Overcoming Stagefright".

Introduce "Patterns of Organization". Students read handout on grammar. Complete text activities.

Day 4:

Prepare poster.

Day 5:

Evaluate posters as a class. Go over answers to activities from yesterday's text. Worksheets "Recognizing Patterns of Organizations" (groups of 2).

Day 6:

Assign two students written paragraphs. Use any method of organization (about job or work interest).

Day 7:

Mix up and hand out student paragraphs. Let groups of two identify pattern of organization.

Introduce cue words - handout. Each student will revise one paragraph. Insert cue words, etc., for a grade.

Day 8:

Discuss cue words and how they help listeners and how they help in organizing material. (Refer back to listening in the workplace.)

Introduce visuals -- discuss how visual aids help listener understand the material. Look at and discuss several examples (charts, graphs, maps, lists, etc.). Handout -- "Using Visual Aids"

Day 9:

Discuss with partner a simple visual aid to fit paragraph. Rough drawing (or sketch) on paper for overhead projection.

Day 10-12:

Assign speech to inform -- explain (related to the workplace) library research and speech preparation and preparation of visual aid.

Day 13-14:

Give speeches.

Day 15:

Critique and evaluate speeches as a group.

Teaching Methods: See outline of unit for included methods.

Teaching Materials and Resources:

1. Handouts: from any grammar book - patterns of organization - (chronological, causal, order of importance, comparison/contrast; also cue words.
2. Handouts: from any speech book - section on "stage fright" - sections on using visual aids.
3. Posterboard, magazines, art supplies.
4. Use of library, xerox, microfiche, computer.

Examples of Workplace Applications:

1. Paragraphs must be related to the workplace or job interests.
2. Speeches must be related to the workplace or job interests.
3. Visual aids must be related to the workplace or job interests.

How will team teaching and/or the integration of subject areas be facilitated?

Usage of library and art department resources.

Shirley Pugh -- B.H.S. South
Ruth DiSilvestro -- IVY Tech
Donna Gorby -- Shakamak

February 1, 1994

SCANS Activity Worksheet

Age Level: Grade 9

Activity Description: After reading and studying Romeo and Juliet, students will choose a topical issue and relate it to today's world.

Resources:

- Brainstorm task within group.
- Develop task responsibilities.
- Identify potential resources: library, law library, lawyer, police department, pharmacist, psychologist, marriage counselor, DJ, caterer, florist, doctor.

Interpersonal:

- Organize responsibilities.
- Delegate duties.
- Interview.
- Exercise management and leadership skills.
- Interact with others on the team.

Information:

- Business/Professional: drugstores, doctors, lawyers, caterers, policemen, pharmacists, psychologists, marriage counselors, florists, DJ's.
- Academic: library, grammar text book, copy of play.

Systems:

- Plan time tables.
- Devise method of presentation.
- Identify social trends.

Technology:

- | | | |
|----------------------|------------------|--------------|
| - VCR | - Word processor | - TV |
| - Photo copy machine | - Typewriter | - Video tape |
| - Telephone | | |

February 1, 1994

UNIT PLAN

Names & Schools: Donna Gorby, Shakamak
Shirley Pugh, B.H.S. South
Ruth DiSilvestro, IVY Tech

Subject Areas: English

Unit of Study: Romeo and Juliet

Competencies Addressed:

1. Reading: 1, 3, 4, 5, 7, 9
2. Writing: 1, 3, 5, 6, 7, 10
3. Speaking: 1, 2, 3, 4, 5, 8
4. Listening: 1, 2, 3, 4

Expected Student Outcomes:

1. Analyze and edit information gathered from outside sources.
2. Organize information to present orally.
3. Meet deadlines.
4. Delegate tasks.
5. Communicate with others.
6. Exhibit correct interviewing skills.
7. Exhibit interpersonal skills.
8. Develop oral presentation skills.

Evaluation Techniques and Standards for Assessing Attainment of Competencies:

1. Meeting deadlines for the project.
2. Using standard grammar in oral presentation.
3. Oral presentation of each group member.
4. Self evaluation.
5. Peer evaluation.
6. Teacher observation of group dynamics.

Outline of Unit:

- Days 1-5: Read, study, discuss, take parts in the play.
Days 6-8: View and discuss video.
Day 9: Introduce project and form groups.
Day 10: Brainstorm issues that Romeo and Juliet might face today.
Days 11-15: Gather and organize information for oral report.
Days 16-17: Presentation of oral reports.

Teaching Methods:

- Lecture and discussion.
- Oral reading of parts in the play -- assume role as actors.
- Video of play.
- Student-created document.
- Group participation.

Teaching Materials & Resources:

Copy of play, video of play, grammar textbook, telephone conversations, interviews, VCR, TV, video tape, word processor, typewriter, photo copy machine, library.

Examples of Workplace Applications:

1. Ability to get information from other people.
2. Ability to work together as a team.
3. Ability to manage other people.
4. Ability to schedule one's time.
5. Ability to present ideas to others in an oral presentation.

How will team teaching and/or the integration of subject areas be facilitated?

Possible team teaching with history department, government teacher, speech department, business department.

Jan Peyser -- Eastern
Frank Wintin --Bed. N. Lawrence
Kenn Fisher --Bed. N. Lawrence
Joe Voris --Bed. N. Lawrence
Maria Russell--Bed. N. Lawrence

February 1, 1994

SCANS Activity Worksheet

Age Level: 16 - 18 (Juniors & Seniors)

Activity Description: Students create a multi-media program that facilitates problem-solving strategies in the workplace, i.e., video, pamphlets, computer graphics, etc..

Resources:

- Guest speakers--manager and psychology tech., and computer tech.
- Sample video
- Sample pamphlet
- Older students with experience in workplace.

Interpersonal:

- Brainstorm tasks and roles.
- Organize groups, develop task responsibilities.
- Delegate duties: writers, including keyboard editors; editors; presenters-actors.
- How are the workers and clients served best?

Information:

- Students decide which resources to use (see Resources).
- Interpret suggestions offered by speakers and incorporate into problem-solving techniques.

Systems:

- Editing
- Set deadlines
- Brief daily progress reports

Technology:

- Telephone
- Video camera and equipment
- Computer/graphic design software
- Word processor
- Photo copier

Timeline:

Day 1 Introduce topic:

1. Guest speaker presents sample problems in the workplace.
2. Question and answer session at the end of the period with speaker.

Day 2

1. Discuss why conflicts occur.
2. Discuss possible solutions to conflict.
3. Psychology expert (or teacher) presents possible solutions.

Day 3

1. What skills are needed to solve problems?
2. Psychology teacher presents options.

Day 4

1. Discuss programs that can be created (i.e., video, pamphlet, multi-media presentation, etc.).

Day 5

1. Assign groups and media to be used.

Day 6-7

1. Outline program.
2. Write copy for program.

Day 8-10

1. Editing program (copy, video, etc.).

Day 11-20

1. Complete design, layout of final production.

Competencies:

- | | |
|--------------|-------------------------|
| 1. Reading | 1, 2, 3, 5, 6, 7, 9, 10 |
| 2. Writing | 1, 2, 3, 4, 5, 6, 8, 10 |
| 3. Speaking | 1, 2, 3, 4, 5, 6, 8 |
| 4. Listening | 1, 2, 3, 4, 5, 6 |

February 1, 1994

Don Terrell, Janice Borders
Donna Craig, Carrie Locke -- White River Valley

SCANS Activity Worksheet

Age Level: Grades 11-12

Activity Description: Teenage Artifacts by Decade (20th Century)
--1900-89-- Group performance daily life: dates, family activities, school, works, fads, styles, societal, politics.

Resources:

1. brainstorm by decades
2. select groups
3. timeline 4-6 weeks

Interpersonal:

1. interviewing for information
2. team skills
3. teaching others

Information:

1. library
2. historical societies
3. family
4. archives - school
5. faculty

Systems:

1. distinguishing societal trends by decade within a historical context
2. evaluate production
 - a. depth of research
 - b. video review of final product
 - c. costumes

Technology:

1. video camera
2. tape recorder
3. lighting technology/stage craft
4. archival preservation

February 1, 1994

UNIT PLAN

Names & Schools: Don Terrell, White River Valley
Janice Borders, White River Valley
Donna Craig, White River Valley
Carrie Locke, White River Valley

Subject Areas: English

Unit of Study: Teen Artifacts by Decade

Competencies Addressed:

1. Reading 4, 5, 6
2. Writing 4, 5, 6
3. Speaking 1, 2, 3, 5, 8
4. Listening 1, 2, 3, 5, 6

Don Terrell, Janice Borders
Donna Craig, Carrie Locke

February 1, 1994
-- White River Valley

SCANS Activity Worksheet

Age Level: Grades 9 - 12

Activity Description: Holiday Food Drive
Time: 4-5 weeks

Resources:

1. identify locations for solicitation
2. identify recipients of products
3. identify supporting agencies

Interpersonal:

1. working with diversity
2. teamwork
3. negotiation
4. soliciting skills

Information:

1. organizing
2. scheduling work teams
3. communicating information
 - a. writing letters of request
 - b. news releases
 - c. thank you notes
 - d. telephone follow-up

Systems:

1. monitoring and correcting performance
2. distinguish trends
3. predicting impacts

Technology:

1. word processor/typewriter
2. telephone
3. scales
4. storage/transportation

February 1, 1994

UNIT PLAN

Names & Schools: Don Terrell , White River Valley
 Janice Borders , White River Valley
 Donna Craig , White River Valley
 Carrie Locke , White River Valley

Subject Areas: English

Unit of Study: Holiday Food Drive (4-5 weeks)

Competencies Addressed:

- | | |
|--------------|------------|
| 1. Reading | 2, 5, 10 |
| 2. Writing | 1, 3, 4, 5 |
| 3. Speaking | 1, 2, 3 |
| 4. Listening | 3, 4, 6 |

February 1, 1994

Don Terrell, Janice Borders
Donna Craig, Carrie Locke -- White River Valley

SCANS Activity Worksheet

Age Level: 9 - 12 grades

Activity Description: Famous/Infamous Hoosiers

Timeline: Mural composed of individual or small group posters

Resources:

1. identify categories
i.e., music, art, sports, politics, information, entertainment, business, etc.
2. identify individuals from each of these categories
3. time expected: 3 weeks

Interpersonal:

1. determine scope and sequence of project
2. establish parameters
3. determine group/individual responsibilities

Information:

1. brainstorm sources of information
2. cross curriculum for resources, research, topics
3. poster continuity
4. library
5. field trip: college library, Indiana museum, etc..

Systems:

1. evaluation instruments:
 - a. poster and accessory products
 - b. traditional written examination -- comprehensive for class covering mural project information

Technology:

1. typewriter/word processor
2. video camera/tape editor
3. computer graphics
4. tape recorder

February 1, 1994

UNIT PLAN

Names & Schools: Don Terrell , White River Valley
Janice Borders , White River Valley
Donna Craig , White River Valley
Carrie Locke , White River Valley

Subject Areas: English

Unit of Study: Timeline Mural of famous/infamous hoosiers

Competencies Addressed:

1. Reading 5, 9
2. Writing 1, 5, 8
3. Speaking 1, 3(modified)
4. Listening 2, 6(?)

Frank Wintin -- Bed. N. Lawrence
 Maria Russell -- Bed. N. Lawrence
 Jan Peyser -- Eastern

March 1, 1994

SCANS Activity Worksheet

Age Level: 11 & 12

Activity Description: Produce a broadcast news magazine/newscast show based on literary work(s). Fiction or non-fiction using specific events or situations drawn from the piece.

Resources:

Museum, library, film/video, newspapers, sample newscasts/talk shows/documentaries, field trip to TV news station, guest speakers and story tellers.

Interpersonal:

Organize responsibilities.

Delegate duties:	writers	layout design
	interviewers	photographers
	researchers	actors
	editors	directors
		videographers

Information:

Students decide which resources to use (see resources).

Systems:

Editing, set deadlines, brief daily progress reports, follow up communication, devise systems for trial preparation and practice.

Technology:

Use of audio and video equipment.
 Word processor.
 State craft.
 Use of microfilm.

March 1, 1994

UNIT PLAN

Names and Schools: Frank Wintin, Bedford N. Lawrence
Maria Russell, Bedford N. Lawrence
Jan Peyser, Eastern High School

Subject Areas: English

Unit of Study: Literary newscast

Competencies Addressed:

1. Reading 1, 2, 3, 4, 5, 6, 7, 8, 9, 10
2. Writing 1, 2, 3, 5, 6, 7, 8
3. Speaking 1, 2, 3, 4, 5, 6, 8
4. Listening 1, 2, 3, 4, 6

Expected Student Outcomes:

1. Analyze information gathered from research and interviews.
2. Analyze sample video.
3. Write daily progress reports.
4. Edit.
5. Meet chosen deadlines.
6. Edit oral copy.
7. Exhibit interpersonal skills: teamwork, brainstorming, teaching others.
8. Exhibit correct interviewing and research skills.

Evaluation Techniques and Standards for Assessing Attainment of Competencies:

1. Written news copy/script.
2. Oral presentation.
3. Specified participation.
4. Meeting deadlines.

Outline of Unit:

Day 1-2:

Introduce project.
Sample programs.
Discuss different angles/possibilities for show format.

Day 3-5:

Develop team action plan.
Students assign tasks.
Create a list of potential interviewers.
Create a list of potential sights and activities.
Secure necessary equipment.

Day 6

Implement plan.
Create story board.
Design interview questions.
Create script.

Day 8-15

Complete design.
Complete design of format.
Run three.
Trouble shoot.
Edit/rehearse.
Produce final product.

Don Terrell -- WRV
Carrie Locke -- WRV
Donna Craig -- WRV
Janice Borders -- WRV
Chantel Carpenter -- Linton

March 1, 1994

SCANS Activity Worksheet

Age Level: High School

Activity Description: Short Story Sense Center
Partners will present through various mediums significant elements of a chosen short story (videos, tapes, models, original art, screen-play posters, etc.).

Resources:

Author's biography resources, story anthologus, time line--2 weeks, select partners.

Interpersonal:

Divide responsibilities, assesing individual strengths.

Information:

Identify project outcome, list materials, select materials, personal application.

Systems:

Distinguishing univeral theme, stereotypes, setting, strengths/weaknesses of story, author's life reflected in story? Evaluation instruments--projects and presentations.

Technology:

Computer, camera, art supplies, hand tools, drama class.

March 1, 1994

UNIT PLAN

Names & Schools:	<u>Don Terrell</u> ,	<u>White River Valley</u>
	<u>Janice Borders</u> ,	<u>White River Valley</u>
	<u>Donna Craig</u> ,	<u>White River Valley</u>
	<u>Carrie Locke</u> ,	<u>White River Valley</u>
	<u>Chantel Carpenter</u> ,	<u>Linton</u>

Subject Areas: Short Story

Unit of Study: Sense Center

Competencies Addressed:

1. Reading 5, 7, 8, 10
2. Writing 3, 5, 10
3. Speaking 1, 2, 6
4. Listening 2, 5, 6

Expected Student Outcomes:

1. Students will be able to identify and explain the various elements of the short story.
2. Students will demonstrate #1 to the rest of the class.

Jean Ambrose -- Martinsville
Sarah Robinson -- Edgewood
Shirley Pugh -- B.H.S. South

March 1, 1994

SCANS Activity Worksheet

Age Level: Grades 9-12

Activity Description: "Hands-On: Learning Something NEW!!"

Each student will choose a new thing* to learn -- choose a how to do/how to make -- from someone else and from other sources.

* "Thing" should be socially appropriate and approved by the teacher.

The product/results will be presented in a manner appropriate to the thing learned, i.e., photos, poster, video, "live" presentation.

Resources:

1. Brainstorming ideas.
2. Brainstorming resource locations.
3. Students budget their own time.
4. Students keep log of project data.
5. Data to be used for preparing formal/written part of project.
6. Oral (opt. written) progress report to class.
7. Prepare for presentation to class.

Interpersonal:

1. Who will "teach" the new thing? (Work w/outside source.)
2. Sharing progress w/class.
3. Presentation to class.

Information:

1. Resources: friends, family, library, teacher, business, professions, arts, artisans/industrial arts.
2. Gathering information.
3. Organizing (distilling/discarding).
4. Outcome: presentation.
5. Feedback/evaluation.

Systems:

1. Plan time table for project (over a 3 week period?).
2. Understand appropriateness/social setting for presentations, etc.
3. Response to efforts to learn, presentation, and results.
(Response by teacher and classmates.)

4. Presenter should be able to respond well to questions from classmates and teacher.

Technologies:

Open: The variety of technologies used will be broad and will, of course, vary according to NEW thing chosen by each student. VCR, Word Processor, mat cutters, graphics program, video/TV, paints, tools, kitchen equipment, sewing machine.

March 1, 1994

UNIT PLAN

Names & Schools: Jean Ambrose, Martinsville
Sarah Robinson, Edgewood
Shirley Pugh, BHS South

Subject Areas: English

Unit of Study: Hands-On: Learning Something NEW!!

Competencies Addressed:

- | | |
|--------------|-------------------------|
| 1. Reading | 1, 2, 4, 5, 9, 10 |
| 2. Writing | 1, 2, 3, 5, 6, 7, 8, 10 |
| 3. Speaking | 1, 2, 3, 4, 6, 8 |
| 4. Listening | 1, 2, 6 |

Expected Student Outcomes:

1. Identify and meet deadlines.
2. Communicate with others.
3. Exhibit interpersonal skills.
4. Analyze and edit information gathered from outside sources.
5. Identify and discuss good presentation skills.
6. Develop oral presentation skills.
7. Draft, revise, and edit project summation.
8. Prepare and deliver presentation.

Evaluation Techniques and Standards for Assessing Attainment of Competencies:

1. Identify and meet deadlines.
2. Use standard grammar in oral presentation.
3. Use standard grammar in formal written summary.
4. Meet teacher criteria for paragraphs, speech, visual aids, posters, etc..
5. Exhibit pictures, share edible products, show slides/audio-visuals, and/or demonstrate process.
6. Self-evaluation.
7. Teacher observation and evaluation.

Outline of Unit: Intermittent classroom activity.

- Day 1:
- Discuss concept of Hands-on: Learn Something New project.
 - Brainstorm possibilities for projects.
 - Write paragraph discussing what the student plans to learn, possible resources, time estimates.
 - Discuss timelines/deadlines for project.

Day 2: - Progress reports presented briefly in class.
 - Review progress in keeping writing logs.
 - Discuss problems and possible solutions.

Day 3: - Discuss oral presentation skills.
 - Discuss written summary criteria.

Day 4: During last week of project:
 - Determine schedule for student presentations
 (planning no more than 2-3 presentations per
 class period).

Days 5,6,7:
 - Prewriting
 - Rough draft
 - Editing -- of written summary
 - Final draft

Days (?) (Depending upon class size and number of presentations
 per class):
 - Presentation of oral reports.

Teaching Methods:

1. Lecture and discussion.
2. Student-created documents.
3. Process-based writing.
4. Student demonstration.

Teaching Materials & Resources:

Grammar textbook, VCR, TV, video tape, computer, software, photo copy machine, library, friends, family, teachers, community. (Resources will vary according to activity or process selected by student.)

Examples of Workplace Applications: Processed-based rather than product-based applications.

1. Looking for resources to gain knowledge.
2. Following directions.
3. Sharing acquired information.
4. Problem-solving.
5. Presentation skills.
6. Summarizing knowledge acquired in report form.

How will team teaching and/or the integration of subject areas be facilitated?

- Interdisciplinary coordination with computer applications.
- Utilization of community resources.
- Usage of library, home economics, etc.

Other comments:

Many of the above areas will vary because of the diversity of projects.

S C I E N C E

The following lessons were developed by Science teachers who met for four days during the school year.

Rick Harter -- BHS North

SCANS Activity Worksheet

Age Level: Ninth grade Physical Science integrated into English, Math, Keyboarding, and Social Studies.

Activity Description: While studying chemistry in Physical Science, students will learn to quantify and qualify household chemicals. Students will amass as much data as needed to teach the rest of the class for a period of 30-50 minutes on the health, environmental and social impact of their chemical group.

Resources:

Group needs to determine what it needs, such as:

1. postage and envelopes
2. overhead acetates
3. posterboards, magic markers
4. time, both in class and out of class

Interpersonal:

1. Group decisions as to who does what:
 - a. letter writing
 - b. typing/word processing
 - c. spread sheet use to make data tables
 - d. library research
 - e. interviews
2. Group discussion and debating of presentation type and method
3. Personal interviews with local businesses and agencies such as the recycling center or local refuge.
4. Delivery of presentation, who does what?

Information:

The following will be needed:

1. Type of hazard: personal and/or environmental
2. Means of disposal or use that makes the chemical a health or environmental hazard.
3. Annual production rates.
4. Means of recycling if possible.
5. Flux to environment.
6. Dollars made in producing, sales to consumers, disposal.

7. Social impact; why its made, how many involved in production.
8. Predicting future trends if use is continued or stopped.

Systems:

1. Formation of a time line of when certain tasks are to be completed by various group members.
2. Each group member will be given a grade sheet in which they shall give a grade to each group member, including themselves. Each grade shall be accompanied with supportive comments.
3. Develop alternative strategies when there is a breakdown in their tentative plan, e.g., none responds to their letters or who will pick up the slack for an ill team member.
4. Groups will need to arrange time to practice presentation.

Technology:

1. Computers for word processing of letters and reports.
2. Computers for creating data tables and graphs.
3. Telephones for communicating with local agencies.
4. Overhead if needed for presentation.

UNIT PLAN

Names & Schools: Rick Harter , B.H.S. North

Subject Areas: _____

Unit of Study: Household chemicals

PART I

Individual Student Activity:

1. Each student will make a table qualifying at least 25 household chemicals as found in their homes.
2. Each student will present their table to the teacher and their group on poster board for a personal grade. Student tables should consist of chemicals verses their characteristics. Table should include the following:
 - a. Characteristics should include, but not be limited to:
 1. purpose
 2. toxic/nontoxic
 3. smell
 4. color
 5. state (solid, liquid, gas)
 - b. Chemicals should be divided into one of the following categories:
 1. flammable hydrocarbons (gas, paint solvents)
 2. acids
 3. bases
 4. pest control agents (bug spray, herbicides)

PART II

Group Activity:

1. Groups of four will be arranged by teacher.
2. Each group will make one 30-50 minute classroom presentation on the health hazards or environmental impact caused by one of the six categories of household chemicals. This presentation should be both quantitative and qualitative.

3. Group tasks include the following:
 - a. Choose a group leader/coordinator.
 - b. Select one of the six chemical categories for their presentation (could be done by "hat draw").
 - c. Collective library research of topic, including a library presentation by K. Loser (librarian).
 - d. Compose and mail letters to manufacturers of their chemicals and to concerned government and environmental agencies for current first-hand data.
 - e. Arrange data into tables, charts and graphs that show past and current trends and predict future trends.
 - f. Data should also include items that show social impact, i.e., how many dollars are involved, how many people employed, how many crops are saved because of, disease control (DDT).
 - g. Culmination in group presentation to the class.

Bedford N. Lawrence

Carrie Staley
Kenn Coy
Timothy Day

SCANS Activity Worksheet

Age Level: 9 - 12

Activity Description: Development of Crash Cars to illustrate Newton's three laws of motion.

Resources: Given a teacher-defined minimum of materials that must be used with use of additional (i.e., stuff from home) materials encouraged. Students should make use of crash tests, tapes from motor companies, commercials and other resources that are available.

Interpersonal: Division of labor between the students which allows the students to have a specific role or responsibility to accomplish, but yet they still must work together in a team. There must be ample time given to each team allowing them to discuss their plan; design and construction so that group interaction leads to negotiation and teaching skills.

Information: Students (teams) were asked to develop the philosophy that lead into the design, which in turn lead to the construction of the car. Students produce a written report including title page, table of contents, blueprint (design), materials list, philosophy, and a discussion of Newton's three laws pertaining to the car. In addition, they were asked to produce a fully constructed car.

Systems: Teacher provided a day-by-day checklist and the students, by the division of labor (administrator, designer, builder), are expected to monitor their work on the project.

Technology: Use of the computer for typing up the reports (word processing skills).

TIME LINE

1. This project is a culmination of previous chapters dealing with Newton's three laws of motion, plus the concept of work and force.
2. Students as individuals are given a packet of information corresponding to overall action plan. They are then given time to develop philosophy sheet (i.e., their idea as to design, how car should operate, etc.). (15-20 min. -- Day 1)
3. The following order of events, (days or which specific tasks, in relation to development) are listed thusly:

Day 2 Put into groups by teacher--according to philosophy sheet. In other words, similar conceptions are grouped together. For example, if a student felt that the car should be compact, then they were grouped with students with similar notions. After being put into groups, students were allowed to differentiate themselves according to title. A title corresponds to a different task, in this case object to be turned in. They are still to function as a team on each task.

Day 3-4 Groups design their car, work together to produce a drawing, as well as written explanation as to how their ideas relate to Newton's laws. Time is subject to teacher discretion.

Day 4-5 Building --students brought into lab -- working as a unit to build their cars, they are free to incorporate new ideas, experiment, etc., as long as this is mirrored on their design sheet.

Day 6 Expectations: Groups make predictions as to outcome of crash. What will happen based on their design ideas and incorporations during the building process?

Day 7 "Crashing" car creations tried out. If there is access to videocamera, taping is recommended. Prior to "crashing", ask students about their cars, designs, what they expect, etc..

Names in group Carrie Staley
Kenn Coy
Timothy Day

DEVELOPMENT OF CRASH CARS

- I. Materials to be used for car: Minimum of seven (7) popsicle sticks, one (1) egg, one (1) dixie cup, at least one (1) rubber band, and you are allowed to add items from home.
- II. Purpose: The purpose of this project is to develop a vehicle (car) that will carry an egg and can be crashed into a wall without the egg being harmed. You are to do this experiment with a knowledge of Newton's Laws of motion. In other words, how would you design a car to counteract, or work with Newton's Laws so that your egg will be safe.

Hint: Think of present day vehicle designs as well as designs for the future. Look at the egg as an example of a person.

ORDER OF EVENTS

Day 1 - Philosophy sheets (15-20 minutes)

The philosophy sheet tells what the car ought to look like. It should include an idea of each of the following.

1. Type of structure? Big and sturdy? Small and sturdy? Big and flimsy? Small and flimsy?
2. Location of egg? on side of car, middle of car, front or back?
3. How materials to be used? Whole? Glued? Stapled? Tied?

Day 2 - (10 minutes)

Announce groups and decide on the name of the car and division of labor.

	Administrator	Designer	Builder
Name			

↓
 responsible for turning in front page with name of car and names of people and their jobs.

↓
 responsible for turning in page with design and how design uses Newton's laws.

↓
 person designated as builder responsible for turning in car the day before the crash tests.

Looks like this

Title
Names and Responsibilities

*All people are working together on each of these, but the person under each title is responsible for turning in each separate part.

_____ Day 3 - (30-45 minutes)

Explain how your design uses, or manipulates Newton's Laws. For example, what could you do to change or use Newton's Third Law to your advantage.

_____ Day 4 - Design - building

_____ Day 5

Expectations of what will happen to your car when it hits the wall. To be turned in by one of the group members.

To be turned in at end of day of crash.

Stapled together lab report made up of Title page, Table of contents, Philosophy sheet, Design sheet, and Expectation sheet. These are all things that will be done as we go along so there should be no problem as to having them completed by crash day.

Bedford N. Lawrence

Kenn Coy
Carrie Staley
Timothy Day

SCANS Activity Worksheet

Age Level: 9 - 12

Activity Description: "Build a Better People Trap"
Construction of a compound machine which will illustrate knowledge of simple machines and mechanical advantage.

Resources: Use of the actual "Mouse Trap" game to demonstrate how various simple machines work together to accomplish a specific task. Given a teacher-defined minimum of materials including pulleys, levers, inclined plane, wedge, wheel & axle with the use of additional materials being encouraged (from home), students will develop a plan or design of a compound machine.

Interpersonal: Division of Labor including (1) Controller (inventory) -- in charge of materials checked in and out (keeps logbook); (2) Engineer -- design: turns in (blueprints) design; (3) Public Relations -- in charge of commercial copy, who is to be "bashed"!

Negotiation, teamwork and group interaction are all a part of the development and creative process.

Information: Design and descriptive analysis of the compound machine they create (i.e., explain how each simple machine achieves its goal, when placed in tandem). Also, each group should produce a commercial presentation of their machine.

Systems: Division of labor, teacher supplied checklist, student generated logs detailing materials checked in and out on a daily basis, as well as adjustments made to design.

Technology: Use and manipulation of lab equipment, videotape equipment, software material.



TIME LINE

1. This project is a culmination of the readings, worksheets and laboratories dealing with the concept of simple machines.
2. Students are given an information packet helping to explain what is to be expected of them including: (1) sample log sheets (2) sample diagrams (3) samples of commercial, advertising copy. They are then assigned groups and allowed to converge together.
3. After grouping together, students are allowed to design their machine thru direct manipulation of simple machines in the laboratory setting. (4 days)
4. Two days devoted to creation of commercial and explanation of "Better People Trap".

Bedford N. Lawrence

Kenn Coy
Carrie Staley
Timothy Day

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4. Two days devoted to creation of commercial and explanation of "Better People Trap".

SCANS Activity Worksheet

Age Level: Junior/Senior

Activity Description: (Medical Technology)

1. What cleaning agents in the household will work best on common bacteria.
2. Then research which household products are safest to the environment.
3. Publish findings in the school paper or fictitious journal or letter to EPA.

Resources:

1. Materials:
cotton swabs; soap and cleaners; wax pencils; petri dishes and agar
2. Cotton balls; garden hose w/nozzle; fish tanks/U.V. light source; zip lock bags
3. Set up time line:
Contact cleaners companies to get info about cleaning and environmental safety. Contact EPA, OSHA, etc..

Interpersonal:

Have students:

1. Choose bacterial sources.
2. Choose household cleaners
3. Write companies about products.
4. Study ppm ppb & safety levels (EPA).
5. Have them set up experiments.

Information:

Have students (use scientific method):

1. Create hypothesis based on initial research.
2. Collect data on petri dishes/fish tanks phosphates.
3. Create method of analyzing and displaying information.

Systems:

- Set deadlines. What will happen if deadlines are not met?
- Evaluate progress. Is the group in task? Could a member be fired?
- Research other methods of testing and see if data has % error -- what method (good science).

Technology:

Computer: graphing data; word processing (letters), final paper.
Lab equipment: To be used efficiently. (How?)

January 27, 1994

UNIT PLAN

Names and Schools: Eric Ban, Edgewood

Subject Areas: Biology, Ecology

Competencies Addressed:

1. Sub category: Collection, Management, and Use of Information
1, 2, 3, 5, 6, 7, 8, 9, 11, 12
2. Sub category: Materials Management
5, 7, 8, 10
3. Sub category: Interactions of Matter and Material Objects
9
4. Sub category: Energy Management
5

Expected Student Outcomes:

1. Choose household cleaning products.
Explain bacterial sources and types of bacteria.
2. Research and analyze data collected from outside sources.
Construct a letter to companies for data about products.
3. Research methods of testing products on bacteria.
Develop methods of testing products on bacteria.
4. Analyze data on products on bacteria.
Research and develop methods of testing products on environment.
5. Construct a report to be published comparing products.

David Dean -- Bloomfield
Joe Overman -- White River Valley

January 27, 1994

SCANS Activity Worksheet

Age Level: Grades 9 - 12

Activity Description: Students will determine and use measuring devices that are functional in the everyday workforce.

Resources:

List 5 or more careers where measurements are used: Students lists measuring devices in these areas.

- Contact local businesses for hands-on demonstration (CRANE, Farm Bureau, ASCS, Arthitect)
(Students use letters, phone.)
- Hands-on demo with devices of each occupation.
- Students choose occupation.

Interpersonal:

- Have or set up student with a day with a business.
- Have Ag & Industrial Arts teacher team tach from time to time.
- Have an occupational day for the class; community leaders.

Information:

- Students collect data on their days, make observations.
- Use computer to print charts and bar-graphs of their data for their business. Analyze data.
- Write a summary of their occupational day.
- Grade on data charts.

Systems:

- Each members should know all responsibilities of group.
- Time-line would be 1-2 weeks completion.
- Students brainstorm lists of responsibilities for each group member. Check list.
- Everybody should be able to do all jobs.

Technology:

- Telephone to contact businessmen.
- Calculators to analyze data; compute %.
- Computer program to graph (live bar), chart statistical data.
- List and describe special machinery used on the day internship.

January 27, 1994

UNIT PLAN

Names & Schools: David Dean, Bloomfield
Joe Overman, White River Valley

Subject Areas: Physical Science

Competencies Addressed:

1. Sub-category: collection, management, and use of scientific information. #1
2. Sub-category: collection management, and use of scientific information. #4
3. Sub-category: collection, management, and use of scientific information. #5
4. Sub-category: collection, management, and use of scientific information. #12

Expected Student Outcomes:

1. Will be able to use job-related measuring machines with hands-on experience.
2. Make personal or communication contacts, i.e., phone, letter, or person-to-person with local businesses.

February 24, 1994

Dave Clark -- White River Valley
Joe Overman -- White River Valley
Eric Ban -- Edgewood
David Dean -- Bloomfield

SCANS Activity Worksheet

Age Level: 9 -- Physical Science

Activity Description: After reading and discussion of Newton's three laws, students will perform a series of demonstrations of each. These demos must be different in each group. Each group will write a report of their findings and apply these to daily practices.

Resources:

1. Textbook, library, lecture.
2. Teacher demo of each law.
3. Space (classroom; outdoors).
4. Equipment for student demos (to be thought up).
5. Time to do experiment, analyze data, write up results.

Interpersonal:

1. Brainstorm procedure and materials needed to conduct the experiment.
2. Group discussion with teacher (monitoring progress and presentation).

Information:

1. Research from library, book, lecture.
2. Analyze demo -- does it demonstrate the concept?
3. Each group writes a paper explaining the demos and how they demonstrate the concepts. Include real life examples.
4. Each student demonstrates one of Newton's Laws.

Systems:

1. Plan time for students to brainstorm and research.
2. How will systems be monitored?
 - a. Students can evaluate each other (check lists).
 - b. Teacher can evaluate (check list).

Technology:

1. Materials (possibly computers).
2. Computer processing (reports).

Be able to explain how your activity gives students a chance to improve at:

- * allocating resources
- * working productively in groups (time, space, knowledge and work)
- * analyzing various forms of information
- * monitoring progress and making adjustments
- * using technology

Competencies

Collection, management, and use of scientific information:
1, 3, 5, 6, 12

Materials Management: 1

Interactions of Matter and Material Objects: 1

Energy Management: 1

B U S I N E S S

The following lessons were developed by Business teachers who met for four days during the school year.

Bloomfield / Linton

10-14-93
Nancy Hudson
Karen Blaker
Susie Slinkard
Linda Long

SCANS Activity Worksheet

Age Level: 10 - 12 Grades -- Business Lab/Business Computer App.

Activity Description: Create 4 booklets to give to incoming freshmen at registration (4-5 members per group): 1. Business classes 2. Clubs 3. Athletics 4. Tech Prep

Resources:

- Brainstorm
- Gather, collect information (counselor, coach, sponsor, handbook teachers, yearbook)
- List tasks to be done
- Survey talent of group
- Set plans - timelines
- Allocate responsibilities

Interpersonal:

- Brainstorm - format, layout, fonts
- Subgroups (artwork, formatting)
- Assembling
- Distribution

Information:

- Sort, analyze information
- Gathering information, interviews, handbook
- Using spell-checks

Systems:

- Timeline
- Plan -- when to get it, how, where, by whom, when due
- Verification by source
- Continuity and/or consistency of form

Technology:

- Word processor to produce/edit
- Duplicate -- printing
- Assembly

Time-Line and Materials

1. Plan and brainstorm (Periods 1-2)
2. Gather information (Periods 5 plus outside work)
3. Production - format/word processing (Periods 6-7)
4. Production - assembly (Periods 5)
5. Distribution (Period 1)

Materials (to be gathered):

1. Sample booklets from other schools and organizations.
2. Word processor, clip art, coping equipment, paper cutters, staplers, staples, rubber bands, boxes.

Unit Plan

Names & Schools: Nancy Hudson , Bloomfield
Karen Blaker , Bloomfield
Susie Slinkard , Bloomfield
Linda Long , Linton-Stockton

Subject Areas: Business Lab Business Computer App.

Unit of Study: Freshman Registration Booklet Project

Competencies Addressed:

- | | |
|--------------------------|----------------------|
| 1. Keyboarding/Keypad | #1, 2, 3, 4 |
| 2. Information | #1, 2, 3, 5 |
| 3. Technology | #1, 3, 5 |
| 4. Basic Economics | #1 |
| 5. B.A.A. Microcomputers | #17, 21, 23, 24, 25 |
| Marketing--Intro to Bus | #19, P. 53 |
| Keyboarding III | #6, 9, all of P. 56 |
| Word Processing | #106, 14, 15, 16, 19 |

Expected Student Outcomes:

1. Gathered information
2. Organize
3. Assemble
4. Distribute

Evaluation Techniques and Standards for Assessing Attainment of Competencies:

- Rough draft copy
- Group reports
- Completed booklets

Outline of Unit:

- I. Divide into groups.
- II. Collect data from individuals
- III. Organize raw data
- IV. Enter data in word processor
- V. Edit information
- VI. Duplicate copies
- VII. Collate pages and assemble with staples
- VIII. Distribute completed booklets

Teaching Methods:

Teacher observation, group oral and written reports about group work, evaluation of completed books, evaluation by others as to ease of understanding information presented in booklet.

Teaching Materials & Resources:

Sample booklets, word processor, clip art, copying equipment, paper cutters, staplers, rubber bands, boxes.

Examples of Workplace Applications:

Booklets prepared for companies explaining policies, procedures, and/or information about product or service provided.

How will team teaching and/or the integration of subject areas be facilitated?

Integration of guidance, athletics, club sponsors, along with English and Business Departments. The Art department could also be integrated.

Other comments:

Time schedule may be a factor as booklets could be needed at a specific time. Students must have information verified by person who originally gave it to them.

SCANS Activity Worksheet

Age Level: Computer Applications 10-12

Activity Description: Groups of 2-3 students can work on forms production; each group responsible for different types of useable forms. In preparation, students will collect samples to be used as models and info to plan, edit, rewrite, type and publish.

Resources:

1. Students decide survey guidance, office, cafeteria, clubs, community organizations, athletic teams, for forms needed.
2. Define tasks to be done.
3. Set up goals and timelines.
4. Allocate responsibilities after surveying talents of groups.
5. Develop folder of sample forms to use as guides.

Interpersonal:

1. Brainstorm school and community events in need of forms.
2. Develop hierarchy of tasks and responsibilities: i.e., editor/time manager, etc.
3. Communicate with user to determine need and usefulness after completion.
4. Be able to adjust to crisis situations.

Information:

1. Interview and take notes.
2. Rework samples provided.
3. Use style manuals/dictionaries/computers.
4. Use feedback from form user to analyze final product.

Systems: Plan timelines; monitor contacting users; monitor form production; monitor group participation; develop alternative plans for altered timelines or substitute responsibility; determine usefulness of completed form.

Technology:

- Telephone for interviews.
- Computer to develop form
- Duplication equipment
- FAX
- Transportation to interviews?
- Question sheet: what? how? when? why? where?

- I. Brainstorming to determine form users (school and community) to address for need - select 3 -- (3-4 periods)
 - A. Develop tasks and alternative options to contact user and divide responsibilities.
 1. contact company/school department
 - a. letter/phone/personally
 2. develop interview sheet/questions
 3. gather samples
 4. set up appointment

- II. Brainstorming/defining tasks to develop timeline and team-action plan -- (1 period)
 - A. Design
 - B. Create
 - C. Edit/Proofread/Test
 - D. Follow up with user
 - E. Revision
 - F. Duplicate
 - G. Money/materials
 1. Divide responsibilities
 2. Select team manager
 3. Emphasize team approach to quality management

- III. Interview potential user (school/community) and select team client -- (5 periods)
 - A. Conduct interview using questions developed (step I)
 1. determine need
 2. design and develop form
 - a. edit/test/revise through team quality control approach
 3. determine production cost
 - a. collect resources if necessary

- IV. Form production and distribution -- (3-5 days)

- V. Team Evaluation (1 period)
 - A. After production
 1. Teacher designed evaluation sheet
 - a. In addition to teacher evaluation

- VI. Materials gathered
 - A. Samples folder
 - B. Computer
 - C. Duplicating materials and equipment

Jerry Mullis -- Bedford N. Lawrence Carole Smith -- Owen Valley
Sandy Baxter -- Shakamak Terrylee Turnipseed -- Martinsville

SCANS Activity Worksheet

Age Level: Grades 11 - 12

Activity Description: Creating a video tape of student-generated trial.

Resources:

- 1. Trial Procedure Manual
- 2. Interviews
- 3. Typists make transcript of case
- 4. Survey and select talents of group
- 5. School newspaper staff
- 6. Telecommunications class

Interpersonal:

- 1. Generate questions before interview
- 2. Rewriting of directions from judge to jury
- 3. Designate specific roles
- 4. Have debriefing group of reports after trial
- 5. Student planning group determines tasks

Information:

- 1. Field trip to court
- 2. Student report from interviews
- 3. Guest prosecutor
- 4. Guest police detective
- 5. Guest judge
- 6. Reading law briefs
- 7. Notes from interviews
- 8. School newspaper cover story
- 9. Analyze video

Systems:

- 1. Time lines for different tasks
- 2. Devise monitoring system
- 3. Develop alternate plans

Technology:

- 1. Word processing to develop transcript
- 2. Video recorder
- 3. Telephone



TIME LINE

1. Class brainstorming to determine: (2 periods)
 - prosecutor
 - crime planning
 - jury group
2. Planning tasks from brainstorming groups (1/2 per + homework)
3. Contacting guest speakers, contacting interviewees, and others who will be involved and affected in crime. (Brief class time)
4. Interviewing and gathering information, debriefing reports, writing reports. (Brief class time + homework)
5. Trial Day
6. Evaluation (2 days)
 - use video as tool
7. Materials to be gathered:
 - Trial Procedure Manual
 - Law Briefs
 - Video camera
 - Access to word processing equipment
 - Directions from judge to jury

Unit Plan

Names & Schools: Carole Smith , Owen Valley
Sandy Baxter , Shakamak
Terrylee Turnipseed , Martinsville
Jerry Mullis , _____

Subject Areas: Creating a video of student-generated trial.

Competencies Addressed:

1. English/Language Arts -- Reading #1,2,3,4,5,6,7,8,9,10
2. English/Language Arts -- Listening #1,2,3,4,5,6
3. Keyboarding/Computer Applications -- Keyboarding #1,2,3,4
4. Keyboarding/Computer Applications -- Information #1,3,4,5
5. Keyboarding/Computer Applications -- Technology #2,4,5

SCANS Activity Worksheet

Age: High School -- Career class; Inf. Lab; Intro to Bus.

Activity Description: Students (Employment Counselors) in groups of 3-4 will create materials to be used to help clients prepare a career portfolio.

Resources:

- Employment agencies
- Collect samples of interest surveys, attitude surveys, personality surveys, resume
- Develop list of material needed used to help clients
- Occupational Outlook Handbook for career clusters
- Guest speaker that is an employment counselor
- Allocating timelines

Interpersonal:

- Group must brainstorm tasks and what must be done
- Roles as team members

Information:

- Produce surveys
- Letter of application
- Resume
- Write employment agencies to get samples

Systems:

- Create time lines
- Decide alternatives when problems arise

Technology:

- Word processing computers -- keyboarding class
- Choices program -- career
- Desktop publishing

Assuming career topics have been discussed prior to this project:

Teacher duty:

1. Put students into groups of 3-4.
2. Teacher gathers:
 - interest surveys
 - personality
 - attitudes

3. Students gather samples of:
 - resumes
 - application forms
 - interview questions

Outside of class, give them due date over a week.

Students will create the following generic forms: (1 week)
resume format
application format
interview forms
letter of application format

Students can type themselves or cross curriculum keyboarding.

4. The group needs to evaluate, edit, check appearance and format and redo if necessary. Students should decide who will do what tasks here. (2 periods)
5. Recruit clients from Speech or Study Hall.
6. Each student in the group will create one client portfolio. (1 week)
 1. resume
 2. letters of application
 3. appreciation
 4. interview

If you want to add time, can do: (3 weeks)
choices
interest surveys

7. Teacher evaluates career portfolios of clients.

Bob Jones -- Edgewood
Judy Mathias -- Edgewood
Linda May -- Edgewood

12-2-93

SCANS Activity Worksheet

Age Level: 11 - 12

Activity Description: Spirit Store -- purchase, set prices, sell, bookkeeping, inventory database

Resources:

- Determine products to be sold, and research costs, set prices.
- Determine when and where to sell items (games, bookstore, etc.).
- Assign responsibilities and organize groups.
- Determine fund raiser for starting capital.

Information:

- Gather information on businesses to donate items for initial fundraiser.
- Type letters to send to businesses.
- Develop contract for student employees.
- Determine suppliers to purchase.

Systems:

- Plan timelines when tasks are to be completed and for business cycle.
- Devise pay/grade scale, and system to determine if tasks are being completed, contracts being followed or met.

Technology:

- Computer and software
- Cash register
- Time clock
- Adding machines/calculators

Time Line:

1. Class brainstorming to determine products, process, locations, and fundraisers for initial start-up capital. (1-2 periods)
2. Choose managers, employees and plan organizational chart; assign tasks to employees. (1-2 weeks)
3. Contact businesses that might donate to start-up costs. (1 week)
4. Order inventory and set up displays. (4-6 weeks)
5. Schedule working hours for initial fiscal period. (1-2 periods)
6. Monitor inventory, sales, profits, schedules, determine if changes needed. (on-going, 1 per week)
7. Prepare end of period reports. (1 period per cycle)

Materials:

- Inventory forms
- Checking account and forms
- Financial statement example forms
- Cash register tape

12-2-93

UNIT PLAN

Names & Schools: Bob Jones , Edgewood
 Judy Mathias , Edgewood
 Linda May , Edgewood

Subject Areas: Marketing

Unit of Study: School Spirit Store

Competencies Addressed:

1. Bus. App. & courses -- description and profic. 22.1

2. Tech Prep second math measurement 1 & 2
 Prob/Stats 1, 3, 4, 8
 Economics Basic 2, 3, 4, 5, 6
 Speaking 1, 2, 3, 4, 6, 8

3. Ind. Tech Prep Model Articulation Agreement
 Acct. I 1, 5, 7, 9, 18, 21, 39, 42, 44, 45, 50, 64-72,
 86-92, 130-143, 137-143
 Microcomputers 5-70, 78-88
 Intro to Bus. 5, 12, 13, 15, 25, 27, 28, 29, 35, 41

Linda May
Judy Mathias -- Edgewood
Bob Jones

Scott May -- B.H.S. South

SCANS Activity Worksheet

Age Level: High School Business classes

Activity Description: Groups of 4-6 students can work to develop an evaluation of skills and technology needed by businesses that can be presented in a report format.

Resources:

- determine information needed from surveys of businesses
- assign responsibilities
- organize groups by talent area
- design survey questionnaire
- design cover letter

Interpersonal:

- determine tasks that must be completed
- assign team leaders
- student to lead entire group

Information:

- gathering information on businesses to survey and then interview
- typing, editing, retyping, using a dictionary and to prepare questionnaire and cover letter
- follow-up on incomplete or unreturned surveys

Systems:

- plan timelines when tasks should be completed
- devise a system to determine if all groups are completing projects on schedule
- develop plan alternatives

Technology:

- computers
- telephones
- typewriters
- copy machine

TIME LINE AND MATERIALS

1. Class brainstorming to determine tasks and information needed from surveys (1-2 periods)
2. Organize groups and assign leaders (1 period)
3. Gathering information on businesses to survey and then developing and typing survey questionnaire, cover letter. Following up on incomplete surveys. (1 week)
4. Interpreting and recording results in database and spreadsheet (as needed)
5. Prepare reports and graphs based on results of survey (1-2 weeks)
6. Materials to be gathered by instructor:
 - sample surveys and letters
 - letterhead for letters

12-2-93

UNIT PLAN

Names & Schools: Bob Jones , Edgewood
 Judy Mathias , Edgewood
 Linda May , Edgewood
 Scott May , B.H.S. South

Subject Areas: Business

Unit of Study: _____

Competencies Addressed:

1. Tech Prep:
 Second School Core Comp. - Key/Comp Apps 2, 3
 English Sub Reading 10, 9, 6
 English Writing 2, 4, 7, 8, 10

2. Business Art Agreement - Computers
 7, 8, 11, 17, 18, 23, 24, 25, 27, 42, 46, 48, 49, 50, 51, 52,
 53, 54, 55, 57, 59, 61, 62, 63, 64, 65, 66, 67, 69, 70, 78,
 79, 80, 81, 82, 83, 84, 85, 86, 87, 88

3. Keyboard /Doc P. -- Business Art. Agree 1, 2, 3, 4, 6, 9, 10

12-2-93

UNIT PLAN

Names & Schools: Bob Jones , Edgewood
 Judy Mathias , Edgewood
 Linda May , Edgewood
 Scott May , B.H.S. South

Subject Areas: Business

Unit of Study: _____

Competencies Addressed:

1. Tech Prep:
 Second School Core Comp. - Key/Comp Apps 2, 3
 English Sub Reading 10, 9, 6
 English Writing 2, 4, 7, 8, 10

2. Business Art Agreement - Computers
 7, 8, 11, 17, 18, 23, 24, 25, 27, 42, 46, 48, 49, 50, 51, 52,
 53, 54, 55, 57, 59, 61, 62, 63, 64, 65, 66, 67, 69, 70, 78,
 79, 80, 81, 82, 83, 84, 85, 86, 87, 88

3. Keyboard /Doc P. -- Business Art. Agree 1, 2, 3, 4, 6, 9, 10

Sandy Baxter -- Shakamak
Carole Smith -- Owen Valley
Terrylee Turnipseed -- Martinsville

12-2-93

SCANS Activity Worksheet

Age Level: 11 - 12

Activity Description: Life Simulation

Resources:

- Develop budgets.
- Have students develop a criteria of which job offers best pay and benefits.
- Setting up time lines and plans of when I can afford new car, apartment.
- Allocate responsibilities with room mates.
- List tasks which need to be done.

Interpersonal:

- Be able to adjust to crisis situations.
- Determine tasks that must be prioritized and completed.
- Sharing of knowledge gained by research.
- Communicating, compatible, flexible when living with room mate.

Information:

- Gathering information, interviews.
- Sort, analyze information.
- Letter of application, resume, job interviews.
- Prepare monthly budget.

Systems:

- Decide alternatives when problems arise.
- Evaluate present position, skills, info. for future jobs and decide how to improve self for a better standard of living.

Technology:

- Telephone
- Computer (word processing for spreadsheet)
- Fax machine.

Time Line:

Day 1

- (2 class periods)
Months 1 & 2
- A.) Pass out jobs
Figure deductions
 - B.) Living at home
Pay parents for living at home
Gas money
Food money
 - C.) Determine format for budget

Day 2

- (2 class periods)
Months 3 & 4
- Bring wages up-to-date.
 - Begin looking for new job--determine how to get new job.
 - Still living at home.
 - Open savings account -- save 10% of gross pay.
 - Begin having living expenses -- doctor, dentist, medication, wedding gift, birthday gift, Christmas gifts, eye doctor.
 - Divide according to eye color, hair color, jr., seniors.
- 4th month -- Begin looking for a place to live.
Determine costs for living -- utilities, furnishings.

Day 3

Catch-up day. Make phone calls; general preparation.

Day 4

- Bring wages and budget up-to-date.
- Check grocery list to make sure it's adequate and balanced.
- Begin looking for new place to live -- check about expenses for utilities and furnishings.
- Life changes (examples): lay-off from job
job relocation
room mate moves out
rent insurance
rent increase
life & health insurance
lose eye contact lenses

Day 5

- Bring wages and budget up-to-date.
- Move out from parents' home.
- Start looking for car.
- Pay deposits for utilities, phone.
- Need new clothes.
- Sickneses, kidney infection, measles

- Day 6
- (optional) Bring wages and budget up-to-date.
 - Buy car insurance.
 - Car expenses.

Materials:

Newspapers, insurance agency, utility company, license branch, car dealership, doctor, dentist, eye care clinic, bank, tax specialist.

Attached is analysis for students to complete. Teacher evaluation of completed information of Life Simulation.

Final Analysis of Life Simulation

1. Describe (analyze) the feelings you had about your first job.
2. When you got a job that paid more, did you tend to overspend? Analyze.
3. What would you do if you really ran out of money?
4. Did you really buy all that you needed in reaction to food, clothes, apartment necessities, and "crazy money"?
5. What would you do differently now that some time has elapsed?
6. Analyze how you could actually use some of this information when you are actually out on your own.

12-2-93
Project 2.

Unit Plan

Names & Schools: Sandy Baxter, Shakamak
Carole Smith, Owen Valley
Terrylee Turnipseed, Martinsville

Subject Areas: _____

Unit of Study: Life Simulation

Competencies Addressed:

1. Math -- Measurements Operations #1, 2
2. English/Language Arts -- Reading #2, 4, 5, 6, 7
3. English/Language Arts -- Writing #1, 2, 4, 5, 8, 9
4. Keyboarding/Computer Applications --
Keyboarding #1, 2, 3, 4
5. Keyboarding/Computer Applications --
Information #1, 2, 3
6. Economics -- Basic Economics #1, 2, 3
7. BAA
Keyboarding III/Document Production #1, 2, 3, 4, 6, 8, 9,
10, 14

12-2-93

Susie Slinkard -- Bloomfield
Karen Blaker -- Bloomfield
Linda Long -- Linton-Stockton

SCANS Activity Worksheet

Age Level: 9 - 12

Activity Description: Payroll -- Taxes (to be used in Introduction to Business, Office Procedures, Business Math -- any business class not just accounting)

Resources:

Formed committees to check for the following information:

1. Local realtors, electric company, gas company (monthly bills)
2. Home Economics Department (food costs)
3. Federal and state tax instruction (tax preparation)

Interpersonal:

1. Subgroups to check time cards
2. Subgroup of two (rotation basis) to enter information on computer, printout pay checks, and do the proof -- provides a register.

Information:

1. Complete application for positions
2. Produce oral or written reports on information gathered
3. Sort and analyze information to be entered in the computer
4. Produce paycheck, W-2, federal and state tax forms, and keep a pay check book.

Systems:

1. Time line
2. Develop procedures to be followed when dealing with unexpected problems
3. Continuity and/or consistency of forms

Technology:

1. Computers and appropriate software
2. Overhead
3. Adding machines/calculators
4. Telephones
5. Time clock -- if available

Time lines:

One or two semesters

- 5 minutes daily for time cards
- 10 minutes every two weeks to figure payroll
- 15 minutes every month to write checks and figure checkbook
- 30 minutes every two weeks to figure payroll and computer (payroll and computer clerk)
- 2-3 periods a semester for tax forms

Materials:

1. Time cards
2. Checkbooks
3. Tax forms
4. Computer
5. Printer
6. Overhead projector
7. Adding machines/calculators
8. Computerized Payroll Procedures, second ed., Allen and Klooster. South-Western Publishing Company.
9. Understanding Taxes, High School Program. Internal Revenue Service, P. O. Box 127, Glen Burnie, MD 21060.
10. Spreadsheet, if available.

ACTIVITY TITLE: Payroll-Taxes

Competency(ies) Addressed:

1. Utilize touch keyboarding skills for alphabetic and numeric data using the computer as a tool to produce various documents.
2. Apply their knowledge of addition, subtraction, decimals and tables.
3. Demonstrate correct use of deposits, withdrawals, check writing, and endorsements.
4. Prepare 1040EZ and state tax forms from W-2 forms.

Time required: One or two semesters.

- 5 minutes daily for time cards
- 10 minutes every two weeks to figure payroll
- 15 minutes every month to write checks and figure checkbook
- 30 minutes every two weeks to figure payroll and computer (payroll and computer clerks)
- 2 - 3 periods a semester for tax forms

Activity Objective:

Understand the relationship between payroll and taxes.
Realize that hard work and attendance are important.
Understand the importance of keeping accurate records.
Realize that math does have practical applications.
Discover that the cost of living is high.
Develop a respect for deadlines.

Activity Description (Summary): Preparation of Form W-4, time cards, payroll, checkbooks, Form W-2, Federal and state taxes.

Expected Outcomes:

- Keep an accurate checkbook.
- Understand and use correct endorsements.
- Write checks correctly.
- Be familiar with federal and state tax forms.

Instructional Materials/Resources Required:

Materials -- Forms W-4 and W-2, federal and state tax forms, tax tables, time cards, checkbooks, payroll software.*

Resources -- Local realtors, electric company, gas company (monthly bills)
Home Economics Department (food costs)
Federal and state tax instructions (tax preparation)**

*COMPUTERIZED PAYROLL PROCEDURES. Second edition, Allen and Klooster. South-Western Publishing Company.

**UNDERSTANDING TAXES, HIGH SCHOOL PROGRAM. Internal Revenue Service, P.O. Box 127, Glen Burnie, MD 21060.

Instructional Materials/Equipment: Computer, printer, overhead projector, adding machines, calculators.

Participating Departments: Computer, Business, Math, Home Economics (Economics)

Evaluation: Check time cards, checkbooks, computer printouts, and tax forms. Some reports may be assigned and graded.

Assignments: Each student completes a Form W-4 as a single individual. The students are paid minimum wage the first nine weeks with raises for A's (\$1.00) or B's (\$.50) each nine weeks thereafter. Each hour in class represents an eight-hour work day. They are paid every two weeks. The student keeps his own time card with bonus pay for grades on their workbook and tests. At the end of each pay period each student figures his own gross pay, deductions, and net pay. A team (payroll clerks) checks each time card and sends it to the next team (computer department) who enters it into the computer which prints the payroll proof, payroll register, and the pay checks. At the end of the year, the computer department provides a Form W-2 for each student which they use to complete their federal and state tax forms.

Each student keeps a checkbook where he deposits his check and pays his rent (for his seat in class), heat, electricity, and food each month. Businesses are created for each category with students as the owners or managers.

Additional Comments: They live at home without any bills for the first two pay periods to accumulate enough money to live independently.

One folder is provided for their time cards (which provides an easy way to take the daily attendance) and another folder for their checkbook. A student usually volunteers to design the checks used in class.

The second semester can be varied by having students draw for different life styles (marriage, children, divorce, college, commuting, etc.) and the sequence begins again -- Form W-4 through taxes.

Unit Plan

Names & Schools: Linda Long, Linton-Stockton
Susie Slinkard, Bloomfield
Karen Blaker, Bloomfield

Subject Areas: Any Business class or any Math class

Unit of Study: Payroll - Taxes

Competencies Addressed:

1. Keyboarding/Keypad: 1, 2, 3, 4
2. Keyboarding/Computer Application -- Information: 1, 2, 5
3. Accounting/Payroll: 130, 132, 133, 134, 137, 138, 141, 142

Expected Student Outcomes:

1. Keep an accurate checkbook.
2. Understand and use correct endorsements.
3. Write checks correctly.
4. Be familiar with federal and state tax forms.

Evaluation Techniques and Standards for Assessing Attainment of Competencies:Check:

1. Time cards
2. Checkbooks
3. Computer printouts
4. Tax forms

Some reports may be assigned and graded.

Outline of Unit:

Understand the relationship between payroll and taxes.
 Realize that hard work and attendance are important.
 Understand the importance of keeping accurate records.
 Realize that math does have practical applications.
 Discover that the cost of living is high.
 Develop a respect for deadlines.

Teaching Methods:

Each student completes a Form W-4 as a single individual. The students are paid minimum wage the first nine weeks with raises for A's (\$1.00) or B's (\$.50) each nine weeks thereafter. Each hour in class represents an eight-hour work day. They are paid every two

weeks. The student keeps his own time card with bonus pay for grades on their workbook and tests. At the end of each pay period each student figures his own gross pay, deductions, and net pay. A team (payroll clerks) checks each time card and sends it to the next team (computer department) who enters it into the computer which prints the payroll proof, payroll register, and the pay checks. At the end of the year, the computer department provides a Form W-2 for each student which they use to complete their federal and state tax forms.

Each student keeps a checkbook where he deposits his check and pays his rent (for his seat in class), heat, electricity, and food each month. Businesses are created for each category with students as the owners or managers.

Instructional Materials/Resources Required:

Materials: Forms W-4 and W-2, federal and state tax forms, tax tables, time cards, checkbooks, payroll software.

Resources: Local realtors, electric company, gas company (monthly bills)
Home Economics Department (food costs)
Federal and state tax instructions (tax preparation)

Examples of Workplace Applications: All businesses must keep tax records for IRS. Therefore, all students that are gainfully employed will encounter payroll information.

This project is also intended to help students on a personal level in writing checks and keeping a checkbook register.

How will team teaching and/or the integration of subject areas be facilitated?

This project is an integration of math, accounting, and home economics areas.

Other comments:

They live at home without any bills for the first two pay periods to accumulate enough money to live independently.

One folder is provided for their time cards (which provides an easy way to take the daily attendance) and another folder for their checkbook. A student usually volunteers to design the checks used in class.

The second semester can be varied by having students draw for different life styles (marriage, children, divorce, college, commuting, etc.) and the sequence begins again -- Form W-4 through taxes.

Ruan Fougrousse -- White River Valley
Marsha Lentz -- White River Valley
Scott May -- B H S South

12-2-93

SCANS Activity Worksheet

Age Level: High School -- Computer Applications or Adv. Computer Applications

Activity Description: Term project which integrates software applications learned in Computer Applications class. (Disc Jockey business)

Resources: Students research cost of CD's, equipment, other expenses, and determine income per job. In groups of 4, students will allocate tasks. Students will organize and plan data base and spreadsheet format.

Interpersonal:
Students must communicate with group members to share information and data in files. Students must brainstorm to determine types of music, fees, equipment, etc..

Information:
Create data base, spreadsheet, mail merge, and desktop publishing.

Systems:
Decide alternatives when problems arise. Evaluate time line.

Technology:
Computers
Scanner

COMPUTER APPLICATIONS PROJECT

Disc Jockey Business

Four of you have decided to go into a disc jockey business. You know there are many decisions that you will have to make and you will use your computer skills to make decisions and provide information.

Any small business, such as a disc jockey business, must keep track of a variety of information: letters, bills, advertisements, reports, customer and inventory lists, income and expense figures, etc. In addition, this information must be presented in an organized manner so that the proprietors can make the best use of it.

Your project should include at least the following:

DATA BASE

Data base 1: create a data base that stores names, addresses and phone numbers of all customers, date next to be performed, date last performed and musical preference of customer: disco, classical, punk, etc. Prepare a report for all parties to be performed in a specific month or all customers who like classical music.

Data base 2: create a data base that stores the title, artist and style (disco, classical, punk, etc.) A report can be done of all parties to be performed in a specific month or all customers who like classical music.

SPREADSHEET

Spreadsheet 1: create a spreadsheet that can be used to keep track of all income and expenses related to running the service for a specific period of time. Use the information you gathered as a group to record income for each job, equipment rental or cost, and cost of CD's, etc.

Spreadsheet 2: create a spreadsheet that can be used to keep track of income and expenses related to a specific job. For example, mileage to the job, special costs such as a tuxedo rental for formal parties, etc.

WORD PROCESSING

Document 1: using a word processing package capable of mail merge and data base 1, send a mail merge letter to old customers reminding them of recent services and asking them to consider you for their upcoming parties.

Document 2: prepare a cover letter that you could use to send to potential customers. Be sure to include the

TIMELINE

This is an end of semester or computer applications project or beginning of advanced computer applications project. Students must be able to use word processing, data base, spreadsheet, and graphics/desktop publishing packages before attempting this project.

If you use the project in full, it will probably take 4 weeks. To shorten, the teacher could provide information for income and expenses, make minimum amounts on spreadsheet and database smaller, not do oral presentations, do the project as individuals rather than groups.

<u>Time</u>	<u>Description</u>
1 day	Break into groups, discuss project
3-4 days	Groups gather information, brainstorm on company name, equipment, etc.
1 day	Break into tasks and begin project
2 weeks	Create data bases, spreadsheets, etc.
2 days	Oral presentations

appropriate flyers and list of songs available for each of the different musical styles.

Document 3: a bill containing information and perhaps a chart from spreadsheet 2 showing all expenses for a specific party.

GRAPHICS

Company logo: using a graphics package or desktop publishing package create a company logo that is acceptable to the entire group.

Letterhead: using a graphics package or desktop publishing package, create a letterhead to be used with all of the documents.

Advertisement: using a graphics package or desktop publishing package, create flyers for the different music styles

As a group, you will need to decide the name of your business, what type of equipment you will need, how much you will charge your customers, what type of information you will need to gather to make these decisions, etc. Gather the information and research before making decisions.

As a group, decide areas of expertise: word processor, data entry, graphic artists, financial areas, etc. Decide who will do what jobs in your business.

Using the word processor, submit a detailed outline of the purpose of your business, goals of the business, and describe what each of the data bases, reports, spreadsheets, charts, documents, and graphics artwork will contain and who is in charge of doing them. Prepare a timeline showing the expected progress for each person in the group.

After completion of all work, each group will give an oral presentation about their project, explaining what each student did and why they made some of the decisions they made.

12-2-93

UNIT PLAN

Names & Schools: Marsha Lentz , White River Valley
Ruan Fougerousse , White River Valley
Scott May , Bloomington H. S. South

Subject Areas: Computer Applications

Unit of Study: End of Semester Project, or beginning of
advanced.

Competencies Addressed:

- | | | | |
|----|--------|----------------------------------|---|
| 1. | T. P. | Keyboarding/Keybd
Information | #1, 2, 3, 4
1, 2, 3, 4, 5 |
| 2. | T. P. | Technology | 1, 2, 3, 4, 5 |
| 3. | B.A.A. | Acct. | 5 |
| | B.A.A. | Microcomputers | 17, 24, 26, 27, 28, 31,
34, 42; all of pp. 43,
44, 45 |
| 4. | B.A.A. | Bus. Management | 19 |
| | B.A.A. | Marketing | 19 |
| | | Office Adm. - Keyboarding | 2, 3, 4, 5, 6 |
| | | Office Adm. - Word Proc. | 1, 2, 14, 15, 16, 19, 21,
23 |

Janice McCracken -- Mitchell
Terrylee Turnipseed -- Martinsville
Sandy Baxter -- Shakamak
Jan Rutherford -- Ivy Tech
Larry Strain -- Ivy Tech

March 8, 1994

SCANS Activity Worksheet

Age Level: 9 - 12 Intro to Business Class

Activity Description: Groups of students will develop and implement plan to recycle materials, such as aluminum cans, paper, glass, etc..

Resources: Identify talents/skills within group and delegate responsibilities. Develop plans for drop-off and pick-up. List tasks to complete and develop timelines. Identify potential sources of help in community.

Interpersonal: Groups must brainstorm tasks and what must be done. Identify roles and tasks. Select leader for task responsibility.

Information: Feasibility studies on different material recycling. Identify experts/groups in school and community to provide ecology information. Identify/find ecology information -- journals, encyclopedias, etc.. Use letter models, style manuals, dictionaries, etc..

Systems: Develop timelines for tasks. Devise monitoring system. Develop bookkeeping system for monies. Develop alternate plans if things go wrong. Devise advertising system to impart information. Monitor recycling activity.

Technology:

Telephone, typewriter or word processor, fax, copy machine, desktop publishing, spreadsheets, data bases.

Competencies:

- | | |
|-----------------------|-------------------|
| 1. Keyboarding/Keypad | #1, 2, 3, 4 |
| 2. Information | #1, 2, 3, 4, 5 |
| 3. Technology | #1, 2, 3 |
| 4. Systems | #1, 2, 3, 4, 5, 6 |

Time line and Material List

1. Class brainstorming (ecology plan) WHAT, HOW, WHO, WHEN, WHY and OUTCOME (money management). (2 periods)
2. Planning of tasks to develop ecology team action plan and setting up committees (evaluate talents). (2 periods)
3. Contacting interested parties, clubs, and organizations (school and community) for support groups. (10 days)
-overlapping with #4 below.
4. Interviewing, gathering information, writing and editing contact letters, developing criteria for scholarship, writing and editing scholarship application, advertising campaign (news articles, posters, TV interviews). (10 days)
-overlapping with #3 above.
5. Recycling project.
- year-long project with time after school and Saturdays devoted.
6. Choose scholarship committee who will select scholarship recipient. Develop necessary communications and timelines. (10-15 days)

Materials:

To be gathered either by teacher or students.

- Sample letters.
- Sample news articles.
- Sample posters.
- Sample scholarship applications.
- Sample spreadsheets.
- Sample scholarship criteria.
- Access to typewriter/computer word processor.
- Access to Fax machine.
- Access to copy machine.
- Transportation availability (truck for hauling).
- Access to spreadsheet/data base.
- Access to telephone.
- Storage availability (place and materials).
- Access to desktop publishing.

INDUSTRIAL TECHNOLOGY

The following lessons were developed by Industrial Technology teachers who met for four days during the school year.

Larry York -- Martinsville
Frank Sharp -- Martinsville
Monty Vandeneede -- Edgewood

SCANS Activity Worksheet

Age Level: 9 - 12

Activity Description: Quality Control - S P C (Statistical Process Control) method of establishing and maintaining an acceptable level of quality in the production process.

Resources: Students determine:

1. Critical characteristics.
2. Determine measuring tools needed (micrometer, calculator).
3. Determine sample size and frequency.

Interpersonal:

1. Communicate with industry and request information on their S P C system.
2. Students investigate a quality control lecturer from local industry.

Information:

1. Gather industry guidelines.
2. Gather S P C charts from local industry.
3. Team presentations to share information.

Systems:

1. Students will develop a quality control procedure that will explain how to interpret data and take corrective action in the event.

Technology:

1. Micrometers
2. Charts
3. Calculators
4. Computer and appropriate software

UNIT PLAN

Names & Schools:

Monty VanDeneede,	Edgewood
Larry York,	Martinsville
Frank Sharp,	Martinsville

Subject Areas: Manufacturing

Unit of Study:

Competencies Addressed:

1. Using measuring equipment
2. Developing and interpreting SPC charts and processes
3. Implementing process into actual production of product

Expected Student Outcomes:

1. Student will learn value and importance of quality control
2. Student will understand and be able to take appropriate steps to correct problems in quality control

Evaluation Techniques and Standards for Assessing Attainment of Competencies:

Students will be able to make charts from given information and develop SPC charts to determine if process is within mean.

Outline of Unit: SEE ACTIVITY SCAN SHEET

Teaching Methods: Lecture; Demonstrate; Guest speakers; Field Trips

Examples of Workplace Applications:

Actual SPC's from local industries.

How will team teaching and/or the integration of subject areas be facilitated?

Math Department will aide in instructing in principle of graphics and statistics.

English Department will aide in written communication.

1977/78

Garry Anderson -- Edgewood
Scott Holman -- Edgewood
Jeff McNabb -- Shakamak

SCANS Activity Worksheet

Age Level: Grades 9-12

Activity Description: The class will produce a 6 ft. picnic table with problem solving, manufacturing, design, group participation, and marketing involvement.

Resources:

- Students will determine type of materials used
- Prices will be investigated according to materials
- Tool use will be determined
- Skills will be learned according to phase of project

Interpersonal:

- Students will phone lumber company, hardware stores to gain cost of various materials used
- Students will group with skill level being foremost
- Local building people, Park & Rec people and small businesses to offer information

Information:

- Gather information for size, hardware used, and cost
- Present information to entire class and smaller groups
- Develop a flow sheet for production

Systems:

- Determine time schedule for various parts to be manufactured
- Check/balances on amount and kinds of work each student performs
- Analyze problems of undetermined breakdowns

Technology:

- Calculator/computer will be used to create plans, dollar amounts, etc.
- Listing of machines or tools to be used
- Desktop publishing for marketing/plan book, etc.

This project should not be longer than 12 weeks. Perhaps the project can be 3-part:

1. Information about manufacturing
2. Manufacturing
3. Marketing

Groups could be assembled to determine best method of assembly, types of tools, types of material, finishing, safety, and worthiness of education in manufacturing the picnic table.

Garry Anderson -- Edgewood
Scott Holman -- Edgewood
Jeff McNabb -- Shakamak

12-7-93

SCANS Activity Worksheet

Age level: Grades 9 - 12

Activity Description: The class will produce a roll-top bread box with problem solving, manufacturing, design, group participation, recycling, and marketing involvement.

Resources:

- Students will determine type of materials used.
- Students will find low/high amounts of cost range for project.
- Tool use will be determined.
- Various skills will be learned through various stages of project.

Interpersonal:

- Students will phone lumber company, mills, fabric stores, etc..
- Group students according to skill level.
- Locate businesses -- shops to offer opportunity to sell bread box on consignment.
- Local businesses -- shops can address appropriate procedure for selling project.

Information:

- Gather information for materials (kinds of wood), sizes, finishes, and hardware.
- Present information to class and smaller groups.
- Develop a flow sheet for production.
- Students will develop a series or set of organized piece gathering for one project.

Systems:

- Determine time schedule for various parts to be manufactured.
- Check/balances on amount and kinds of work each student performs.
- Analyze problems of undetermined breakdowns.
- Test and evaluate various aspects of project throughout fabrication.

Technology:

- Calculator/computer will be used to create plans, dollar amounts, size corrections, etc..
- Listing of machine, jig/fixtures to be used.
- Desktop publishing for marketing/plan book, etc..

Time line:

This project should not be longer than 6 weeks. Perhaps the project can be divided into four parts:

1. Information and manufacturing
2. Manufacturing
3. Design/finishing
4. Marketing

Groups could be assembled to determine best method of assembly, types of tools, types of material, finishing, safety, and worthiness of education in manufacturing the bread box.

Consideration should be made towards creating a video of this class project.

RESOURCES:

1. Students will determine type of materials used.
 - Fasteners (sizes, kinds, and finish)
 - Finishes/sealing (water repellent - oil or water base)
 - Cost of materials (low end - upper end)
 - Location of picnic table (inside/outside)
2. Prices will be investigated according to materials.
 - Students will compile a list of prices obtained from lumberyards, hardware stores, and mills.
 - Students can be divided or individual lists obtained from phone calls, field trips, and personal contact.
3. Tool use will be determined
 - Students will determine use through group brain storming and trial and error.
 - Dependent on materials used, types of fasteners, and number of students.
4. Skills will be learned according to phase of project.
 - Students will learn measuring, machining skills, finishing, and assembly techniques.
 - Marketing will be integrated at various stages.
 - Drafting/CAD will be used throughout project.
 - computer skills used by students
 - computation skills used by students
 - Information/word perfect/documentation storage use gained in project design and marketing.

INTERPERSONAL:

1. Students will phone lumber companies, hardware stores to gain cost of various materials used.
 - Comparative shopping will be obtained either individually or as groups.
 - Insight of different materials available, i.e., fasteners - lumber - finishes.
 - Methods of delivery of materials and cost factor of delivery -- quantity - supply and demand.
2. Students will group with skill level being foremost.
 - Testing competency of students skills.
 - Personal contact with students will also determine levels.
3. Local building people, park and rec people and small businesses to offer information.
 - Field trips will be used.
 - Guest speakers from above areas.
 - Literature and marketing techniques discussed with above contacts.

INFORMATION:

1. Gather information for size, hardware used, and cost.
 - Students will interview various organizations, business, manufacturers, and local people.
 - Students will brainsotrm through materials gain, information, data stored, etc..
2. Present information to entire class or small groups.
 - Students can present materials through use of handouts, overhead projector, and lecturing.
 - A video can be made to demonstrate types of materials, fasteners, etc..
3. Develop a flow sheet for production.
 - Trial and error will be used -- until satisfied.
 - Timed productions at various stages of production.
 - Student skill level will determine flow.
 - Availability of tools (stationary and hand).
 - Availability of materials on hand (supply and demand).
 - Types of materials (supply and demand).

SYSTEMS:

1. Determine time schedule for various parts to be manufactured.
 - Trial and error will be used.
 - Talk to other related businesses.
 - Skill level of students will determine manufacturing time.
 - Tool availability will be a factor as well as material availability in manufacturing.
 - Student attendance/tardy, etc., will affect production/manufacturing.
 - Machine/tool breakdown should be considered as a possible determinant in fabrication.
2. Check/balances on amount and kinds of work each student performs.
 - Daily work sheets can be used by instructor.
 - Group evaluation will be installed and determined by students.
 - Final product evaluation can be obtained from businesses, park and rec., etc..
3. Analyze problems of undetermined breakdowns.
 - Machinery
 - Tools
 - Material delivery
 - Student behavior/attendance

TECHNOLOGY:

1. Calculator/computer will be used to create plans, dollar amounts, etc.
 - Skills will be gained through use of technical equipment.
 - Problem solving and calculating must be used to create and accumulate data.

2. Listing of machines or tools to be used.
 - Hand/stationary/power:
 - Table saw
 - Hand power saw
 - Hand drill and Drill press
 - Tape measure
 - Square
 - Router
 - Sander
 - Paint brush
 - Wrenches/sockets
 - Jig/fixture
 - Drafting equipment/phone

3. Desktop Publishing for marketing/plan book, etc..

UNIT PLAN

Names & Schools: Jeff McNabb, Shakamak
 Garry Anderson, Edgewood
 Scott Holman, Edgewood

Subject Areas: Drafting / Woodworking / English

Unit of Study: Picnic table construction

Competencies Addressed:

- 1. Tool skills
- 2. Communication skills
- 3. Interaction skills
- 4. Problem solving skills

Expected Student Outcomes:

- 1. Students will be able to assemble, market and design a product through competencies above.
- 2. Students will gain realistic techniques, processes in step-by-step procedures.

Evaluation Techniques and Standards for Assessing Attainment of Competencies:

They can readily use tools and other skills through teacher observation. Group evaluation can be used during projects final stages.

Outline of Unit: See Activity Scan sheet.

Teaching Methods: Team Teaching
 Demonstrations
 Lectures
 Slides and other videos
 Trial/error

Teaching Materials & Resources:
 Textbooks
 Videos
 Field trips -- Lumber Co.
 Manufacturer Demo
 State, City parks system



Examples of Workplace Applications:

- Group interaction
- Problem solving
- Tool useage
- Time study
- Communication skills

How will team teaching and/or the integration of subject areas be facilitated?

- Drafting/woodworking
 - CAD drawing
 - Tool useage
 - Demonstrations
- Brainstorming

Monty VanDeneede -- Edgewood
Larry York -- Martinsville
Frank Sharp -- Martinsville

12-7-93

SCANS Activity Worksheet

Age Level: 9 - 12

Activity Description: Classes will work together to produce and market a park bench.

Resources:

- Students will design bench.
- Students will determine types of materials to be used.
- Marketing and cost factors will be investigated by students.
- Lab skills will be learned - necessary to complete project.

Interpersonal:

- Students will gain knowledge of materials and cost through inquiry into industry and availability.
- Students will work with and communicate with other involved classes and areas.
- Students will brain storm and problem solve in the design and development of the manufactural method.

Information:

- Learn about information resources in industry through the exploration of product cost and materials.
- Development of quality standards and systems including recordkeeping and tracking.
- Development of step by step production procedures.

Systems:

- Develop Q C standards - systems - records.
- Develop communication system for integration of classes and areas.
- Develop management structure and organization of the production staff.
- Develop time lines that are realistic.

Technology:

- Problem solving - design - industry standards - marketing - tooling and processes
- Tools - computers - calculators.
- Guides - periodicals- manuals.

UNIT PLAN

Names and Schools: Monty VanDeneede , Edgewood
Larry York , Martinsville
Frank Sharp , Martinsville

Subject Areas: Manufacturing; Wood Shop, Machine Shop,
Welding, Drafting, Business

Unit of Study: Park Bench construction

Competencies Addressed:

- Problem solving
- Communication
- Interaction skills - interpersonal and inter class
- Tool skills
- Jig - designing and applicatin
- SPC and Quality Standards
- Time line determination

Expected Student Outcomes:

- Students will design a park bench.
- Students will proto type designs and refine ideas.
- Students will research product material cost and feasibility.
- Students will communicate and work with other classes and subjects to coordinate and complete production.
- Students will market product.
- Students will develop step-by-step production and assembly procedures.
- Students will set standards and time lines to complete work.

Teaching Methods:

Team teaching -- demonstration -- lecture. Video, guest speakers, field trip, peer teaching; self learning through lab experience.

Teaching Materials and Resources:

Textbooks, videos, field trips, lab equipment, computers and software.

Examples of Workplace Applications:

Design
 Problem solving
 Communication
 Vending
 Record keeping
 Meeting time lines
 Maintaining quality standards
 Feasibility studys
 Developing tracking systems and SPC's

How will team teaching and/or the integration of subject areas be facilitated?

Business - marketing class will help promote and sell product.
- help develop pricing.

Math - figure cost factors to learn manufacturing cost.
- actual material cost per unit figures.
- tooling costs
- statistical analysis of SPC.

Wood Shop- wooden part of product.

Drafting - draws finished prints and tooling drawing - jig fixtures.

Machine Shop - build jigs and fixtures; do required production step 1.

Welding - Assemble legs of product and coordinate with other classes to meet production time lines.

Evaluation Techniques and Standards for Assessing Attainment of Competencies:

Students will be able to produce a project which meets quality requirements within a time period appropriate.

Outline of Unit: 12 to 16 weeks. See Activity Sheet.

February 10, 1994

Monty VanDeneede -- Edgewood
Frank Sharp -- Martinsville
Larry York -- Martinsville

SCANS Activity Worksheet

Age Level: High School

Activity Description: Design a chess piece on CAD and run program on CNC lathe.

Resources:

1. Identify piece to be made.
2. Choose material that will be used.
3. Plan sequence of operations.

Interpersonal:

Allocate parts of process to team members:

1. Selection
2. Cost research and material research and selection.
3. Design
4. Production

Information:

1. Acquiring materials.
2. Organizing processes and teams.
3. Conscious of design selection.

Systems:

1. Perform a statistical study to determine if the process is capable and take corrective action as required.

Technology:

1. Computer aided drafting (CAD).
2. Computer numerically controlled machining (CNC).
3. SPC software.
4. Precision measuring equipment.

February 10, 1994

UNIT PLAN

Names and Schools: Monty VanDeneede, Edgewood
Larry York, Martinsville
Frank Sharp, Martinsville

Subject Areas: Manufacturing

Unit of Study: CNC Machining

Competencies Address

1. Problem solving skills
2. Communication skills
3. Interaction skills
4. Teamwork

Expected Student Outcomes:

1. Students will learn basic CAD techniques.
2. Students will experience the machinability of different materials.
3. Students will learn CNC programming.
4. Students will utilize measuring and quality control concepts.

Evaluation Techniques and Standards for Assessing Attainment of Competencies:

1. The chess piece must meet the print criteria.
2. The capability study must prove that the process (CNC program) produces parts that are defect free.

Outline of Unit:

See Activity SCAN Sheet.

Teaching Methods:

Team teaching; demonstration; lecture; video; lab equipment; computer and software.

Teaching Materials & Resources:

Textbooks; videos; lab equipment; computer and software; guest speaker from industry.

Examples of Workplace Applications:

Design; problem solving; meeting time line; record keeping; maintain quality standards.

How will team teaching and/or the integration of subject areas be facilitated?

1. Marketing class will help promote and sell product.
2. Math: QC system; figure cost
3. Drafting: CAD
4. Manufacturing: CNC

February 10, 1994

Monty VanDeneede -- Edgewood
Frank Sharp -- Martinsville
Larry York -- Martinsville

SCANS Activity Worksheet

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1. Selection
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Information:

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February 10, 1994

UNIT PLAN

Names and Schools: Monty VanDeneede, Edgewood
Larry York, Martinsville
Frank Sharp, Martinsville

Subject Areas: Manufacturing

Unit of Study: CNC Machining

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Outline of Unit:

See Activity SCAN Sheet.

Teaching Methods:

Team teaching; demonstration; lecture; video; lab equipment; computer and software.

Teaching Materials & Resources:

Textbooks; videos; lab equipment; computer and software; guest speaker from industry.

Examples of Workplace Applications:

Design; problem solving; meeting time line; record keeping; maintain quality standards.

How will team teaching and/or the integration of subject areas be facilitated?

1. Marketing class will help promote and sell product.
2. Math: QC system; figure cost
3. Drafting: CAD
4. Manufacturing: CNC

SCANS Activity Worksheet

Age Level: High School Industrial Technology Class

Activity Description: Industrial Safety (loudness sensors and noise pollution). With the advent of the Occupational Safety and Health Act (OSHA), the amount of noise workers can be subject to is an important topic. In groups of 2-3, students will assess through the measurement of sound intensity, current safety measures being used in different institutions to control noise pollution. Students will collect data from local businesses which will be used to develop a safety report to be distributed to participating businesses. This product will include an analysis of current practices and recommendations for improvement.

Resources: Teams would need to decide the following:

- Surveying talents of group
- Allocating responsibilities
- Determine tools needed (sound intensity meters, oscilloscopes, microphones)
- Time to contact, measure, analyze and write up results

Interpersonal:

- Letterwriting and telephoning to businesses to gain cooperation for project
- Teams must identify through brainstorming, different areas or machines that they will test
- Talk and write to local government officials to gain information

Information:

- Gather governmental guidelines
- Gather and analyze data from businesses
- Present information in verbal and written form (including tables and graphs)

Systems:

- Plan out timelines of when different tasks must be completed
- Devise system to monitor if everyone is on schedule and task
- Develop alternate plans when things go wrong (i.e., alternate sources for information, who picks up on tasks if team member is ill, etc.)

Technology:

- Telephone to contact government or business representative
- Calculator
- Computer program for word processing, developing tables and graphs, and spreadsheet operations
- Sound intensity meters, oscilloscopes, microphones, industrial equipment

TIME-LINE AND MATERIALS

1. Reading on OSHA and the dangers of excessive noise. (1 period)
2. Planning and brainstorming of tasks to develop a team action plan. (1/2 period + homework)
3. Letter writing and gathering responses. (Brief class time + homework)
4. Collect and analyze data. (Brief class time over a week, 1 class period on how to gather and analyze data, 1 class period for outside expert, and homework)
5. Write-ups (1/2 period modeling various ways to do it, then homework)

Materials to be gathered (either by teacher or students):

- Names, addresses and phone numbers of businesses.
- Tools and materials to be used at home if work is to be done there.
- Teacher developed models of sample final reports. In year 2 you can use the best student write-ups from previous year.
- Direction sheets on how to analyze and present data.