

Business Partner: Allegheny National Forest**Curriculum Relationship: Science****Grade Level: 6-12**

Marilyn McCoy
Substitute Teacher

Objective: To obtain an understanding of the many components that make up the United States Forest Service of which the Allegheny National Forest is a part. Also, to understand the importance of these components as relating to the whole program.

Materials: UFS history report, ANF maps, UFS handouts, presentation by a park ranger

Procedure: Briefly discuss each of the components of the UFS in relation to the ANF. Talk about possible financial aid, opportunity for travel and relocation, advancement, regulations compliance and the rewarding aspects of a position with the UFS

Evaluation: Choose one of the components that make up the UFS (engineering, recreation, timber management, roads/transportation, hydrology, archeology, etc) and write a one to two page report on that topic. Include the educational requirements, advancement opportunities and some specifics of that particular component.

Business Partner: Betts Industries, Inc.**Curriculum Relationship: Mathematics****Grade Level: 9-10**

Eric Hamilton
Warren Area High School

Banking Lesson Plan**Objective:**

1. Students will learn how to correctly find the area(s) of a two dimensional component using tolerances.
2. Students will learn how to correctly determine the cost of an area of material.
3. Students will analyze the most cost effective material to use in making a component to sell to business clients.

Materials:

1. Construction paper (Blue = aluminum, Red = stainless steel, Green = steel)
2. Metric Rulers
3. Scissors
4. Calculators

Procedure

1. Have students work in teams of two to design and cut out components from construction paper. Each group gets 1 piece of each color of construction paper.
2. Each team has to design a component that has an area of at least 500cm^2 , but no more than 550cm^2 with the following conditions:
 - a. The component has to have more than 4 sides, but no more than 10 sides.
 - b. The component sides have to include tolerances, both plus and minus of 1cm.
 - c. The business client needs to use the components for at least the next 10 years.
 - d. The business clients plan to recycle the components at the end of their useful life.
3. Using the dimensions of the sides of the component the teams will calculate the possible areas (using the specified tolerances) of their component.
4. The teams will calculate the cost of materials used for each component using the following information:
 - a. Aluminum = $\$1.50/\text{cm}^2$, Steel = $\$2/\text{cm}^2$, Stainless steel = $\$3.50/\text{cm}^2$.
 - b. Aluminum wears out in 1 year, Steel wears out in 2 years, Stainless steel wears out in 2.5 years.
 - c. The larger the component is within the specified range of acceptable areas, the better recycling value. Aluminum = $\$0.50/\text{cm}^2$, Steel = $\$0.25/\text{cm}^2$, Stainless steel = $\$0.10/\text{cm}^2$
5. The teams will analyze the cost effectiveness of using each material for manufacture and report their findings in a short essay.

Career Education and Work Standards Addressed

1. Career Awareness (manufacturing)
2. Entrepreneurship

Activities

1. Learning how to read and measure with a metric ruler.
2. Learning how to correctly find the area of an object.
3. Learn how to correctly determine the cost of materials used.
4. Analyze the most efficient material to use to make a component keeping cost and material life expectancy in mind.

Business Partner: Betts Industries, Inc.
Curriculum Relationship: Science
Grade Level: 9-12

Rick Hutley
 Substitute teacher

Science abounds in many work areas that are not traditionally thought of as applicable. The fact remains that all areas of high school instruction coexist in all classrooms during the school year and it is this well-rounded education process that produces the best employees in the workplace.

Objective: The students will use their career interests and researched knowledge, in various areas of a business unit, to work as a team in a fabricated workplace to: market, sell, engineer, purchase, account for, do quality guidelines, etc., etc., on a product for a company similar to Betts Industries, Inc.

The initial teamwork departments in this company will be listed that are common to any business. The students will be able to select their area of interest and research their job requirements. Then they will setup their individual job responsibilities to bring a single product to market and successfully be able to repeat orders of production to be a thriving, profitable company. By the end of the role play sessions, their job responsibilities will be altered and various aspects will be added to their final typed assignment.

Goal: This will get the students thinking toward a career after high school. It also gives them some insight on what skills are needed to perform the various jobs, and the education needed (college, trade school, or experience). This will help them toward their ultimate career path in life.

Materials: Writing assignment rubric, computer lab, teacher will act as a facilitator in company meetings to insure the needed interaction and guidance.

Procedure:

1. Proceed to the computer lab where the students will be given a rubric that we will read and review. The students will then explore the various business unit jobs and responsibilities on websites and take notes for their given assignment.
2. Students will be given one classroom period to collect their thoughts on which career path they want to follow and start to build their job classification and responsibilities.
3. Students will be given two class periods in the computer lab to gather additional information needed to firm up the required assignment.

Activity:

1. Students will begin to interact with other students (their job classifications) to get a clearer picture on how their work days will unfold for the career path they have chosen. Those that are not involved in certain departmental meetings will still observe all role play activities and their responsibilities, which will broaden their overall understanding of all the interrelated business problem-solving that occurs.
2. Students will be given three classroom days on various workplace problems that they need to solve in actual work meetings by various departments to insure that their product is viable and remains in demand in the world. Which departments and who will be called to the meeting to solve these problems? Some of these scenarios may include: increased vender material pricing, quality control issues, response from the customer service department, meeting shipping deadlines, material defects in products, labor force problems, rise in health care benefit costs (who absorbs this increase; the product or is there a reduction in benefits and an increase in co-pay by the employees), inventory control costs, and gaining more market share.
3. Students will be given an additional two class periods to redefine their job responsibilities for the career path they have chosen, then hand it in for grading.

Evaluation:

1. Meets rubric guidelines for job classification and responsibilities content.
2. Role play in the business and company meetings was interacting and demonstrated.
3. Assignment was handed in on time (one day late – 50% grade, two days late – 0%).

Business Partner: Lewis Funeral Home
Curriculum Relationship: Health
Grade Level: 3

Sharon Nowacki
 Russell Elementary School

Overview: Young children are often quick to make fun of anything unfamiliar. Students prefer to ridicule unfamiliar situations rather than empathizing with the situation.

Objective: Students will have an understanding of the concept of empathy. Empathy is frequently used in third grade as children mature throughout the school year. Students will have an open-guided discussion on situations where the concept of empathy comes into play.

Materials: Health text book, empathy scenarios, paper and pencil.

Procedure: Teacher and students will first define empathy and relate it to everyday life.

Definition: Empathy—the ability to understand others through being able to identify in one’s self through similar experiences.

Activity: Think-Pair-Share

The students will think independently, discuss with a partner, and share with the class several daily scenarios that may occur in which students will deal with empathy.

Each group of two students will be given a scenario to solve and discuss openly with the class.

Example of some scenarios:

1. A student is excluded from recess play time with what he/she thinks is his/her best friends.
 - a. How does the student feel?
 - b. How can you empathize with the student?
2. A classmate spills milk down the front of himself in the cafeteria and everyone begins to laugh.
 - a. How does the student feel?
 - b. How can you empathize with the student?
3. A student comes to school all upset because her pet goldfish died in the middle of the night.
 - a. How does the student feel?
 - b. How can you empathize with the student?

During each scenario discussion, the classroom can build upon the solutions that students have to offer.

Business Partner: Northern Research Lab
Curriculum Relationship: Science/Social Studies
Grade Level: 4-5

Marilyn McCoy
 Substitute Teacher

Objective: To understand that we live in close proximity to the Alleghany National Forest and what that means to us in terms of resources and obligations.

Materials: Maps, endangered species lists, UFS handouts, computer

Procedure: Examine the map of the entire ANF, noting the various color coded areas and their significance. Develop a list of resources and determine which color coded areas fall under which category on the list. Discuss endangered species and why they are endangered. Elicit responses as to what our responsibilities are in protecting the resources of the ANF.

Evaluation: Each student will be able to write a short one to two paragraph report on one of the endangered species living the ANF and also a one to two paragraph report on one resource of the ANF and its importance in our lives.

Business Partner: Warren County Historical Society
Curriculum Relationship: English
Grade Level: 3-12

Heather Steffy
 Substitute Teacher

Objective: The teacher will review the different sections of a newspaper.

Materials: Paper, markers, and research materials.

Procedure:

1. The teacher will review the different sections of a newspaper.
2. As a class, the students will create a name for the class newspaper.
3. The students will break up into groups of two or three.
4. The students will pick a section from a hat.
5. The students will have to research the section to create an article.
6. The students will have to create a rough draft.
 - a. Headline
 - b. Article
 - c. Picture

- d. Captions
- 7. The students will proofread other students' work.
- 8. The students will create final copy.
- 9. Once all final copies are finished, the teacher will put the different sections into a newspaper.
- 10. Each student will receive a copy of the class newspaper.

Business Partner: Warren General Hospital
Curriculum Relationship: Career Education
Grade Level: K-12

Carrie Corbran
Youngsville Elementary Middle School/Warren County Career Center

Objective: Introduce nursing as a career choice.

Materials: Computer with Internet access for each student

Procedure:

1. Introduce the topic by explaining that nursing is a valuable and rewarding career that is in great demand.
2. Have the students log on to the Web site <http://www.discovernursing.com/gang/>.
3. Allow the student's time to listen to the video, play the nursing trivia game, and complete activities to learn about nursing.
4. Discussion/Presentation:
 - a. Who can be a nurse? Can men be nurses?
 - b. What special qualities does a nurse need?
 - c. What qualifications/education does a nurse need?
 - d. Where do nurses work?
 - e. Who do they work with?
 - f. What are the main things that nurses do in their daily jobs?
 - g. What are some of the nursing specialty areas?
 - h. What special tools/equipment do nurses use?
 - i. Are there jobs available?
 - j. What is the expected salary?
 - k. Would you like to be a nurse? Why? Why not?

Standard addressed: #13.1 Career Awareness and Preparation

Business Partner: Warren General Hospital
Curriculum Relationship: Science
Grade Level: 6-12

Marilyn McCoy
Substitute Teacher

Objective: To facilitate student awareness of the many job possibilities available at Warren General Hospital and the need to hone math and science skills to be able to compete in these fields.

Materials: Computer, Health professions handbook

Procedure: Research health professions, discuss background and educational requirements, provide speaker from the healthcare field

Evaluation: Give a short speech (3-5 minutes) on one specific healthcare field. Discuss the required education, expected salary, opportunity for advancement and a brief overview of the specifics of the career choice.