

Attendance Policy and Call-in Procedure if Going to be Late or Absent

Taft Oil-Technology Academy
Taft Union High School

Objective 1: Students will understand the relationship between consistent attendance and productivity, both in education and in the business world.

Discussion: Students will generate a list of reasons why absenteeism/tardiness could have a negative effect individually, and with their 'study team', on performance and productivity. Students will then compare these results with the results of the Continuing Practice below.

Activity 1: Each 'study team' will formulate their goal for attendance. The Academy's minimum attendance requirement is 90% attendance; each team must set a goal higher than 90% to qualify for the incentive-reward program.

Continuing Practice: Students will discuss, obtain, information and share the information gathered concerning attendance/incentive programs at their parents' places of employment.

Activity 2: Students will now establish incentive/reward program based on information obtained above, concerning the attendance goals established.

Petroleum Unit

Day 1 - Introduction

Introduce the students to this petroleum Unit. Ask the students questions about oil products (gasoline & plastics) to spur interest and tap prior knowledge. Provide input through lecture, postures, demonstration, and handouts-giving an overview of the unit and to teach about petroleum.

Resources:

Kern Co. Petroleum by Petroleum Committee of Greater Bakersfield Chamber of Commerce

California Petroleum in the Global Marketplace by Western States Petroleum (WSPA).

The 1997 Pocket Guide to Petroleum in the West by WSPA.

Activity:

Have the students write answers to the following questions.

1. What is crude oil?
2. Where is petroleum found in the world and in California?
3. What is petroleum used for?

Homework: Pass out "Petroleum in Our Lives" and "Interpreting Charts" worksheet.

Day 2 - Where do geologists find oil in the ground?

Today, the students will learn about oil as a physical science. Teach how it appears oil was formed millions of years ago from dead plant and animals decaying after being trapped in layers of sand and silt on the bottom of warm seas. Emphasis that because of the great heat and pressure needed to form oil, petroleum is found usually deep within the earth's sedimentary rock layers.

Resources:

Read through the appropriate chapters in the textbook Earth 's Natural Resources.

Activity:

Have the students take notes as you draw, demonstrate, and describe anticlines, synclines, fault traps, permeability and viscosity.

Homework: Pass out handout called "Wants vs. Needs Worksheet" #1 and #3.

Day 3 - History of Oil in Santa Barbara and Kern Counties

Introduce today's lesson by asking what did your great grand parents used instead of oil products to live well? Teach on history of local oil production, the current abundance of oil found in these two counties, and mention current methods of recovery.

Resources:

Read through Oil and Gas in California by Susan F. Hodgson. Highlight aspects of History of Oil and Gas Seeps in the Santa Barbara Channel by Conservation Quarterly. Show the video on Kern County oil called The First 100 Years.

Activity:

Take notes from the lecture and the video.

Homework: Pass out handout called "Wants vs Needs Worksheet" #2.

Day 4 - Oil and Profit

Objective:

Students will learn how money is made in the oil industry, both as an individual employee and as a company. The students will also explore the possibility for future employment in this industry.

Introduction:

Introduce today's lesson by asking what do you think people in the oil industry make or earn for their labor? Who employs those people? Do you know anyone in our city working for an oil company? What types of jobs are there? Is the opportunity still there for employment in the oil industry? Present the problem or risks that most oil companies face everyday, that they must drill to realize a profit from oil production.

Input:

- 1) Teach on the availability of oil. Start with our federal government estimates that there are over 3.6 billion barrels of crude oil reserves in California. This compares to 22.5 billion barrels total reserves for the entire U. S. State that many parts of the world are being explored for oil reserves and that very large profits can still be made today.
- 2) A barrel is a unit of measurement that equals 42 gallons and its price varies over time. Kern County's Oil price has seen a low of \$7.50 a barrel in 1986 and a high of about \$27.50 dollars a barrel in 1990. Explain that the price of a barrel of oil fluctuates over time depending on many things such as the demand for it, the supply and quality of the crude oil.
- 3) The price of extraction of oil from the ground can also vary depending on things such as: well location, depth of oil, substrate rock layers and government regulations.

Guided Practice:

Have the students fill out the worksheet form that will guide them through the following steps. The playdo sedimentary layers, straws, rulers, clue cards, boxes, and dice need to be set up ahead of time.

- 1) The students will drill for oil through layers of playdo using wide straws. The mock sedimentary layers of playdo will be set up ahead of time using black poster paint mixed with sand or flower as the crude oil layer.
- 2) Next the students measure the depth of the oil reservoir in centimeters (every centimeter = 1000 feet) by opening up the straws carefully.
- 3) The cost per foot of drilling per foot will be figured using a clue card drawn from the "cost of drilling" box.
- 4) The size of their oil reservoir will be determined by drawing a clue card from the "crude oil reservoir" box.
- 5) The current price for a barrel of their crude will be figured by rolling 5 dice at once the face value will be price used by the student for a barrel of their crude oil.
- 6) The cost of oil recovery per barrel will also be determined by drawing a clue card from the "cost of oil recovery" box.
- 7) Again the following prices will be figured: a) the estimated value of their reservoir, b) the total cost of drilling, and c) the cost of recovery per barrel to determine how many barrels the student needs to produce from his field to at least recover his/her costs of drilling. (Note: if the price for a barrel of crude oil does not exceed the cost for a barrel of oil produced it does not make sense to pump it out of the ground.)

Homework:

The students will write on their experiences as an exploratory oil well production company manager by doing the following:

- 1) In the first paragraph answer the question, would you produce this oil and why or why not?
- 2) In this paragraph answer the question, at what point in the price for a barrel of oil would it be productive to start pumping your oil? (Sell or give supporting evidence of this idea to your boss).
- 3) How does it feel to be the decision maker (or manager)? Did you like this type of work - why or why not? Do you like taking risks with money? Would you take this risk if it were your own money?

Extension:

Take a guided field trip to a local oil field and talk about job opportunities.