

Day 1- Introduction

Objective - To find out what students already know about petroleum and to introduce them to the unit.

Activity - Students will write down their answers to the following:

- What is petroleum?
- Where does petroleum come from?
- How do we get petroleum?
- What is petroleum used for?

As a whole class we will discuss the answers and make a chart of things we know about petroleum. I will then ask the students what they would like to know about petroleum and make a list of those ideas.

I will show the students some of the books and posters about petroleum that they may read and look at during free reading time.

Activity - Show video "Kern County Oil - The First 100 Years"
Students will write something they learned from the video.

Day 2 - What is oil and where does it come from?

Direct Instruction - Using information on the posters and booklets I will explain to my students what oil is and how it was formed millions of years ago.

Activity - On a large piece of drawing paper folded into fourths, I will have students draw and label the following pictures:

- 1 - Millions of years ago the sea was filled with billions of tiny plants and animals.
- 2 - As these creatures died, they sank to the bottom and were covered with layers of sand.
- 3 - Layer upon layer of plants, animals, and sand built up.
- 4 - The dead plants and animals decayed and after millions of years of heat and pressure they produced oil.

Day 3 - History of Man and Oil?

Direct Instruction - Referring to the book, Drilling Through Time (Rintoul, CA Dept of Conservation, 1990) and some of the other booklets, I will give the students a brief history of man's use and early drilling of oil up to the present day.

Activity - Students will draw pictures for a large oil timeline on the bulletin board. Some of the dates I will include are:

Ancient times - asphalt roads, waterproofed baskets, oil soaked flaming arrows, medicine, war paint.

Early 1800's - kerosene was used in lamps

1859 - First well drilled by Colonel Drake in Pennsylvania

1899 - The Elwood's discovered oil by the Kern River

1910 - Lakeview gusher - (18 months - 9 million barrels of oil)

1901-1920 - Growing demand for oil for cars and airplanes

1920 -1940 - New refining methods and uses for oil

Today - Petroleum is a foundation for our way of life.

The highest technology is used in its production.

Day 4 - How oil is taken from the ground.

Direct Instruction - Using the posters and booklets I will briefly explain to students the different methods used to find places to drill for oil, how wells are drilled, and how the oil is extracted from the ground.

Activity - Chocolate chip cookie activity in Understanding Petroleum Exploration and Production (national energy foundation, 1993, page 8)

Day 5 - Refining and uses of oil

Direct Instruction - Briefly I will explain what happens to the oil in an oil refinery using the posters and information in the booklets. I will tell students about all the things that are made from oil.

Activity - Students will do a crossword puzzle with items made from petroleum products.

Day 6 - Closure

Guest Speaker - I will try to get someone who works for the oil industry to explain to students careers in petroleum and how math and reading are used in these careers. They will answer questions my students may have about what they have learned.

Activity - Students will write down things they learned during this unit and we will add it to the KWL we made the first day of the unit.