Lesson Plan Carlos Marquez

Introduction: Our daily lives depend on petroleum products, the high "standard of living" in America, or the general lifestyle and economic condition of our society, is based on petroleum products. American Society revolves around the use of the personal automobile, and our homes are filled with products that are made from petroleum.

In 1993, Americans had 198 million vehicles on the road, and these vehicles consumed 115 billion gallons of gasoline and 28 billion gallons of diesel fuel. Fuel is need to power aircraft, tractors, and trains, and to heat and cool homes and factories. Petroleum is needed to produce nearly 3,000 other products. In this activity, you will observe a variety of familiar items. It will be your job to determine whether these items were made form petroleum or not.

- Objectives: When you finish this activity you should be able to:
 - 1. Describe the many uses of petroleum
 - 2. Recognize man's daily dependence on petroleum-derived products
 - 3. Recognize oil as a significant energy source
- Materials: Notebook paper, pencil, poster size paper, markers, collection of materials (provided by teacher).
- Procedure: 1. Form teams of two students
 - 2. Observe the items teacher has assembled. Classify the collection of materials into one of two categories: Petroleum products; non-petroleum products
 - 3. On a sheet of notebook paper, make two columns labeled "Petroleum products" and "Non-petroleum Products" List the items you observed in the appropriate column.
 - 4. Combine teams to make groups of 4-6 students. As a group, make a poster showing which items were made from petroleum and which were not. Try to get all member of your group to agree on the list.
 - 5. Your team will need to discuss the rationale behind the poster with the rest of the class.
 - 6. After the poster presentation, answer the Interpretation Questions.

Interpretation Questions:

- 1. List the 5 most important uses of petroleum and/or petroleum products to you and your family.
- 2. Name 10 petroleum products you have used today. Which of these products would you be willing to give up?
- 3. If a petroleum shortage occurred, on what petroleum-based products could you cut back your usage or make replacements?
- 4. Explain why some people think the "standard of living" in America is based on the petroleum industry.
- 5. How are you and your family currently modifying your use of petroleum products?
- 6. In 2 paragraphs, write a short account of what might happen if there was suddenly no more petroleum.

PETROCHEMICAL PRODUCTS

Ink Heart valves Crayons Parachutes Telephones Transparent tape Antiseptics Vacuum bottles Purses Deodorant Pantv hose Rubbing alcohol Shag rugs Epoxy paint Oil filters Pajamas Upholstery Dashboards Dresses Skis Pillows Yarn Soap dishes Perfumes **Refrigerator linings** Faucet washers Folding doors Cortisone Sports car bodies Vaporizers Solvents Toothbrushes Combs Toothpaste Tents Hair curlers Lipstick Ice cube trays Electric blankets Tennis rackets Plastic drinking cups House paint Rollerskate wheels Guitar strings Ammonia

Life jackets TV cabinets Car battery cases Insect repellent Fertilizers Hair coloring Toilet seats Denture adhesive Loudspeakers Movie film Fishing boots Candles Water pipes Car enamel Shower curtains Credit cards Vitamin capsules Car sound insulation Percolators Motorcycle helmets Slacks Shower doors Fishing lures Paint brushes Petroleum jelly Model cars Antihistamines Sweaters LP records **Dishwashing liquids** Unbreakable dishes Golf balls Detergents Sunglasses Permanent-press clothes Fishing rods Linoleum Eyeglasses Soft contact lenses Dice Trash bags Hand lotion Typewriter ribbons Shaving cream Safety glass

Plywood adhesive Cameras Anesthetics Artificial turf **Bandages** Balloons Mops Beach umbrellas Ballpoint pens Boats Nail polish Golf bags Toolboxes Caulking Tape recorders Curtains Hearing aids Putty Cassettes Tool racks Clothesline Insecticides Shoes Shoe polish Electrician's tape Food preservatives Floor wax Dyes Tires Aspirin Glue Roofing Cold cream Synthetic rubber Glycerin Rubber cement Nylon rope Fan belts Umbrellas Paint rollers Luggage Antifreeze Refrigerants Shampoo Footballs

Source: Oil Information Committee, Texas Mid-Continent Oil & Gas Association