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 Derricks to Desks - EDUC 992  
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## Lesson Plan K/1

### OBJECTIVE:

- \* Students will learn about everyday things that are petroleum based.
- \* Students will recognize the various items from the oil industry. (pumps, derricks, platforms etc.)
- \* Students will learn about "oil seeps" and visit one in our area.

### SUPPLIES:

Veneco Custom Demo -- *American Environmental Review*, Veneco, Inc. -- *Skyscrapers on the Sea*; Core sample; oil samples (viscosity); straws and cupcakes various jars, marbles, rocks, sand, water, food coloring, measuring cup

### HANDOUTS:

- 1) brochure -- "Look Who Calls This Place Home"
- 2) placemats -  
 "Oil Plays a Big Part in Our Lives" and  
 "Natures Illusions"  
 (also provided by Veneco, Inc.)

*Petroleum Products in the Home (attached)*

**DAY ONE:** Brainstorming, encourage students to list all of the things that might come from an "oil well." (**Record responses on a large piece of construction paper with outline of derrick on it.**) Display overhead of "Petroleum Products in the Home."

Choose students by pulling sticks to circle items on our construction paper that were on the handout. Pass around the oil samples that are in jars to demonstrate viscosity, allow students to "guess" what would float and/or sink in water. Show the video *Skyscrapers on the Sea*.

**HOMEWORK:** SEND HOME handout "Petroleum Products in our Home" and place mats "Oil Plays."  
 ASK STUDENTS TO BRING supplies for tomorrow; rocks, marbles, sand, clear plastic containers, measuring cups. Send a memo to parents about the field trip with permission slips.

**DAY TWO:** Brainstorming: who remembers yesterday? Take a look at our poster - will oil float or sink? Why? Use cooking oil in water for example - remind them that cooking oil usually comes from plants and sometimes animals. We are to never eat things we are unsure of. Show students syrup that is room temperature. Ask if it pours more easily if it is warmed in the microwave? Explain why water is heated into steam and then injected into the wells. Does this oil pour easier? **Talk about porosity, permeability and viscosity.** Allow students to make suggestions as to how the water may or may not fit into certain containers.

**Lead** a pouring race with cold syrup and warm syrup.

**Set up stations** with the supplies brought in by students (have some on hand in case). Allow students to discover how liquid is held within each medium. *Record today's results in our discovery journals.*

**DAY THREE:** What do we remember about oil? Show video about seeps, "American Environmental Review"  
 Brainstorming: How many of you have ever gotten gum stuck somewhere you didn't want it? Was it messy? Sad? Icky? Has anyone ever been to the beach in Santa Barbara (Gaviota) and got very messy with tar? Does anyone have a car at home that leaks oil? Discuss the possibilities of drilling offshore, point out that Cabrillo spotted seeps, or at least evidence of them, long before anyone drilled for oil in CA.

Who would like to visit this beach? Let the students know of the upcoming field trip. Talk about safety and expected behavior on our trip.

**DRILLING FOR OIL:** Provide each student with a straw and cupcake. Ask them to look at the cupcake without touching and decide how they might be able to find oil. Show core samples and let the students know that oil must be found before it can be pumped from the ground. Remind them of the rocks and syrup of yesterday. Allow the students to guess how many times they will take a "core sample" before they will find oil to drill. *Have them record this number in their discovery journals. Record results in discovery journals.* How many tries? How many chips? Was their cupcake a profitable place to explore for oil?

**HOMEWORK:** Send home "Natures Illusions" and reminders about field trip.

**DAY FOUR:** Field trip day. Check in all students for proper attire, lunch, etc.

**DAY FIVE:** Discuss field trip. Draw picture about our knowledge of the petroleum industry. Review our new big words porosity, viscosity permeability.

**Write** *in our discovery journals about our field trip.* Review our poster from day one about the everyday ways we benefit from petroleum products.

**Handout:** "Look who calls this place home." Talk about the benefits to the marine life. (Briefly discuss whales and how they are no longer needed to provide oil to us.)

**HOMEWORK:** Have a parent/guardian check child's "*discovery journal*" and make an entry with them.

Ink \*  
Rain Gutters  
\* Asphalt Roofing  
Shingles \* Paint \*Caulk \*  
Plywood \* Paint Brushes \* Tool  
Boxes \* Hoses \* Gloves \* Nylon Rope \*  
Building Adhesives \* Ceiling Tiles \* Molded Window  
Frames\* Cable Housings\*Light Housings \*Plumbing Fixtures \*  
Linoleum Tiles\*Insulation\*Outlet Covers\*Air Conditioners\*Carpets\*  
Upholstery \*Pillows \* Bathtubs \* Showers \*Baseboards \* Countertops\*  
Furniture\* Blankets \*Clothing\*Stereos \*Clocks \*Telephones \*Computers \*  
Mattress Stuffing \*Bookcases \*Televisions \*Doors \* Adhesive Tape \*Rubber  
Cement \* Lunch Boxes \* Board Games \* Photographs \* Hair Dryers \* Phonograph  
Records \* Audio Cassette Tapes \* Compact Discs \* Videotapes \* Bubble Gum \* Shoes \*  
Luggage\* Flashlights \*Dolls \*Crayons \*Motion Picture Film\* Zippers \*Cameras  
Shopping Bags\* Picture Frames \*Flower Pots \* Umbrellas \* Combs and Hair  
Brushes\* Shampoo \* Mascara \* Lipstick \* Shower Curtains \*Eye Glasses \*  
Pantyhose \*Deodorant\* Hair Curlers\* Shaving Cream \*Buttons \*Eye Shadow\*  
Shoe Polish\*Bandages\*Perfumes\*Vitamin Capsules\*Sulfa Drugs \*Toothpaste  
\*Toothbrushes \*Antihistamines \*Aspirin \*Ammonia \*Contact Lenses \* Hearing  
Aids \*Petroleum Jelly \*Nail Polish \*Toilet Seats \*Cosmetic Cases \*Hair Dyes \*  
Dentures \*Cortisone \*Cold Cream\* Food Preservatives \*Toasters \* Mops and  
Brooms \* Floor Polish \* Detergents \* Refrigerants \* Fabric Softener \* Food  
Containers \*Pan Handles and Lids \*Blenders \*Dishes \*Cabinets \* Refrigerator  
Liners \* Flavoring \* Dishwashing Liquids \* Coffee Makers \* Candles \* Waste  
Containers \*Shopping Bags \*Insecticides \*Pet Kennels \*Flea Collars \* Plastic  
Dog Bones \*Cat Toys \*Plastic Fencing\* Ice Chests \*Raincoats \*Astroturf \*Car  
Tires \*Asphalt Paving \*Garage Doors \*Automobile Bumpers \* Wheelbarrows \*  
Plexiglass\*Awnings \*Door Mats\*Tennis Balls\*Frisbees\*Sports Headgear\*Ping-  
Pong Paddles \*Badminton Birdies\*Skis\*Fishing Poles\*Life Jackets\*Rollerskate  
Wheels \*Sleeping Bags\*Credit Cards\*Purses\*Winter Jackets\*Tents\*Sneakers  
\*Fertilizer\* Gasoline \*Lubricants \*Trash Bags \* Solvents \* Home Heating Oil\*  
Laundry Baskets\* Automobile Safety Seats\*Natural Gas\*Recycling Containers

## **Petroleum Products in the Home**