



## ***IPRB Curriculum Workshops***

### **Elementary Petro Science with Common Core Math Component - Professional Development for Illinois Science Teachers**

Understand the process of scientific inquiry and technological design to investigate questions, conduct experiments and solve problems as it relates to the Illinois Crude Oil and Natural Gas Industry. Topics include: Ordered pairs, rock ID, porosity, flow rate of oil, pulleys, oil / water cohesion, crude oil, plastics recycling codes, formation of oil & natural gas, and common core math problems.

### **Middle School Petro Science - Professional Development for Illinois Science Teachers**

Understand the process of scientific inquiry and technological design to investigate questions, conduct experiments and solve problems as it relates to the Illinois Crude Oil and Natural Gas Industry. Topics include: oil & natural gas formation, microorganisms, sound waves, locating crude oil, reservoirs / production, separation process, safety, petroleum-based products, energy conservation.

### **High School Core Energy Science - Professional Development for Illinois Science Teachers**

Understand the process of scientific inquiry and technological design to investigate questions, conduct experiments and solve problems as it relates to the Illinois Crude Oil and Natural Gas Industry. Topics include: The structure of hydrocarbons, effects of elevation on flow rate, flow rate of a fluid, fractional distillation and a study of bio-remediation. Labs reinforce the major concepts.

### **Core Energy Math Middle/High School - Professional Development for Illinois Math Teachers**

Understand and utilize Common Core Mathematic standards to define, evaluate and solve real world problems as they relate to the Illinois Crude Oil and Natural Gas Industry. Topics include: Well site clean-up and restoration, directional and horizontal drilling, finding lease locations, oil and natural gas revenue / expenses, and word problems directly tied to a common core standard.



# Illinois Petroleum Resources Board Elementary Petro Science



## with Math Component

### Grade School Activity Kit

Item	Quantity	u/m	Checked in Kit
Rocks - Container of 10 * Coal - 1 * Conglomerate - 2 * Gneiss - 3 * Granite - 4 * Marble - 5 * Obsidian - 6 * Pumice - 7 * Sandstone - 8 * Scoria - 9 * Shale - 10	5	box	
Magnifying Lens	6	ea	
Map Pencils	6	bx	
DVD - 'Story of Petroleum'	1	ea	
DVD - 'Exploring the IL Basin'	1	ea	
DVD - 'Cooking Up Crude'	1	ea	
DVD - 'Lucky'	1	ea	
CD - "Elementary Curriculum"	1	ea	
Sediment Tube	1	ea	
250 mL Graduated Cylinder	6	ea	
Solo Cups Clear - 9oz (1 cup is in plastic container set), pkg	1	pkg	
Large Rocks, bags	6	bag	
Small Rocks, bags	6	bag	
Ooze Tube	1	ea	
Stopwatch/Timer	6	ea	
Metric Ruler	6	ea	
Viscosity Tubes, box	1	box	
Rope (3 Meters)	1	ea	
3/4" Dowels, for fixed and movable pulleys	6	ea	
Eye Bolt	6	ea	
Pulley	6	ea	
Bucket	6	ea	
Pulley Cord (9 Meters)	1	ea	
Spring Scale	6	ea	
Oil/Water Mix (bottles)	2	ea	
Pennies (rolls)	2	roll	
Pipettes, micro tip	25	ea	
Molecular Water Model	1	ea	

Aluminum Foil, box	1	ea	
Carpet, samples	6	ea	
Protractors (pkg of 12)	1	box	
Calculators	6	ea	
Plastic Objects, containers	6	cntnr	
Vegetable Oil, pint bottle (plain)	1	ea	
Gird 1, pad	1	pad	
Grid 2, pad	1	pad	
Grid 3, pad	1	pad	
Pull, Lift, Lower, book	1	ea	
Let's Go Rock Collecting, book	1	ea	
Where Does Garbage Go?, book	1	ea	

**Contents As Of: 5/12/2017**

### **Something Missing?**

Contact IPRB

618.242.2861

iprb@yahoo.com

*Presented By*

***Illinois Petroleum Resources Board***

*Original Core Energy Curriculum*

*Courtesy of Oklahoma Energy Resources Board (OERB)*

***Aligned to Illinois and Illinois Learning Standards***



# Illinois Petroleum Resources Board

## Middle School Petro Science

### Middle School Activity Kit



Item	Quantity	u/m	Checked in Kit
DVD - 'Story of Petroleum Video'	1	ea	
DVD - 'Exploring the Illinois Basin'	1	ea	
DVD - 'Lucky'	1	ea	
DVD - 'Finding the Energy Behind the Energy'	1	ea	
DVD - 'Cooking Up Crude'	1	ea	
CD - 'Petro Science Master pages, Student pages, & 'Geopardy' pages	1	ea	
Oil and Natural Gas book(Energy 4 me)please type the following in an internet web browser and fill out information for free book. <a href="http://www.energy4me.org/order/free-materials/">http://www.energy4me.org/order/free-materials/</a>	1	ea	
Fossil Set (trilobites, brachiopods, crinoids, horn coral)	6	set	
Magnifying Lense	12	ea	
Map Pencils, colored (boxes)	6	ea	
Rock Samples, (pkg contains 1 Shale, 1 Limestone, 1 Sandstone)	6	pkg	
Digital Scale	1	ea	
Solo Cups, clear 9 oz., pkg	1	pkg	
Styrofoam cups (16 oz)	25	ea	
Stirring Straws	36	ea	
Student Timer	6	ea	
Sand, Lg Container	1	ea	
Small Pebbles (1 bag)	1	bag	
Large Pebbles (1 bag)	1	bag	
Graduated Cylinders 100ml	6	ea	
Oil, Vegetable (pt. bottles), w/ dye added to each	3	ea	
Sandwich Bags, box	1	bx	
Tuning Forks	6	ea	
Slinky	3	ea	
Heavy Coil	3	ea	
Erlenmeyer Flask (500ml)	6	ea	
Beaker (250ml)	6	ea	
Rubber Stopper, two hole	6	ea	
Vinyl Tubing: 3/16" OD x 1/8" ID (12")pcs, (12 pieces)	12	pcs	
Vinyl Tubing: 3/8" OD x 1/4" ID (12")pcs, (6 pieces)	6	pcs	
Plastic Pipettes	12	ea	
Straws - Clear Plastic, (1box)	1	bx	
Modeling Clay (1 box)	1	bx	
Plastic 60cc Syringe	6	ea	
Funnel 'small'	6	ea	
Meter Tape	1	ea	
Calculator	6	ea	
Ruler	6	ea	

Petroleum Jelly, (1 jar or tube)	1	ea	
Test Tubes (plastic)	6	ea	
Cotton Balls, (1 pkg)	1	pkg	
Geological Faults & Folds Model	6	ea	
Black Markers	6	ea	

**Contents As Of: 21-Jul-17**

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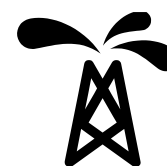
***Aligned to Illinois and Illinois Learning Standards***



# Illinois Petroleum Resources Board

## CORE Energy Science

### High School Science Activity Kit (1)



Item	Quantity	u/m	Checked in Kit
CD - 'Core Energy Jeopardy'	1	ea	
CD - 'Core Energy Science' Curriculum	1	ea	
CD - 'Core Energy Science' Powerpoint	1	ea	
CD - 'Microbial Enhanced Oil Recovery' Powerpoint	1	ea	
DVD - 'Cooking Up Crude'	1	ea	
DVD - 'Exploring the Illinois Basin '	1	ea	
DVD - 'Finding the Energy Behind the Energy'	1	ea	
DVD - 'Lucky'	1	ea	
DVD - 'Story of Petroleum'	1	ea	
Beaker - Plastic 500 ml	3	ea	
Book, Oil and Natural Gas (Energy 4 Me) please type the following in an internet web browser and fill out information for free book ('Energy 4 Me') <a href="http://www.energy4me.org/order/free-materials/">http://www.energy4me.org/order/free-materials/</a>	1		
Cups, clear plastic 9 oz	6	ea	
Cups, Red Plastic 16 oz	6	ea	
Cups, Plastic Medicine, 30mL graduated	6	ea	
Digital Thermometer	1	ea	
Distillation Kit	3	ea	
Hot Plate	1	ea	
Molecular Model Kit, (20 students kits)	20	ea	
Periodic Table of Elements, (1 pad)	1	pad	
Plastic Tubs	6	ea	
Pump(14mm, 9mm, 6mm adaptors w/pump)70 gal/hr Submersible Fountain	3	ea	
Ring Stand, Support Stand, w/rod	3	ea	
Stoppers, Rubber #4, 2 hole	6	ea	
Stoppers Rubber #4, 1 hole	6	ea	
Stopwatch	3	ea	
Sugar Packets	6	ea	
Support Ring 4" w/clamp	3	ea	
Switch, Grounded (to be used with pump)	3	ea	
Universal Indicator, (1 bottle)	1	btl	
Utility Clamp	3	ea	
Vernier "Go Temp" w/Logger Lite Program	3	ea	
Water Bottles, Plastic 12 oz	12	ea	
Yeast, Fleischmann's Rapid Rise Instant	6	ea	

Contents As Of: 29-May-18

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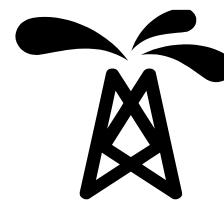
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**Illinois Petroleum Resources Board**  
**CORE Energy Science**  
**High School Science Activity Kit (2)**



Item	Quantity	u/m	Checked in Kit
Beads, Glass Boiling (3 pkg. of 3)	3	pkg	
Beaker - Glass, 100 ml	6	ea	
Cylinder, 25ml Graduated	3	ea	
graph paper, 1 ream	1	ream	
Hot Plate	2	ea	
Laminates of Map and Graph for "Bubbling Up Crude chapter"	6	ea	
Measuring Tape	3	ea	
Oil Vegetable, 32 oz Bottle	1	btl	
Petroleum Jelly (jar or tube)	1	ea	
Ring Stand, Support Stand, w/rod	3	ea	
Soda, (Grape - can)	1	can	
Straws, (Soda)	5	ea	
Support Ring 4" w/clamp	3	ea	
Syringes, 60 mL	6	ea	
Tubing, Vinyl (2m x 14 mm ID) <span style="float:right">(78 <sup>3</sup>/<sub>4</sub> " x 1/2" id)</span>	3	ea	
Tubing, Vinyl (2m x 9 mm ID) <span style="float:right">(78 <sup>3</sup>/<sub>4</sub> " x 3/8" id)</span>	3	ea	
Tubing, Vinyl (30cm x 3mm ID) <span style="float:right">(11 <sup>13</sup>/<sub>16</sub> " x 1/8" id)</span>	6	ea	
Tubing, Vinyl (42cm x 3mm ID) <span style="float:right">(16 <sup>17</sup>/<sub>32</sub> " x 1/8" id)</span>	6	ea	
Tubing, Vinyl (1m x 6 mm ID) <span style="float:right">(39 <sup>3</sup>/<sub>8</sub> " x 1/4" id)</span>	3	ea	
Tubing, Vinyl (2m x 6 mm ID) <span style="float:right">(78 <sup>3</sup>/<sub>4</sub> " x 1/4" id)</span>	3	ea	
Tubing, Vinyl (3m x 6 mm ID) <span style="float:right">(118 <sup>1</sup>/<sub>8</sub> " x 1/4" id)</span>	3	ea	
Utility Clamp	3	ea	
Wire Gauze	3	ea	

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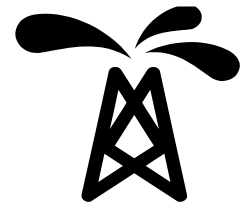
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**Illinois Petroleum Resources Board**  
**CORE Energy Mathematics**  
**Middle/High School Math Activity Kit**



Item	Quantity	u/m	Checked in Kit
Laminated U.S. Survey System Illustration A/B/C	10	ea	
Laminated, Oil Production	10	ea	
Laminated, Drill in the Right Direction	10	ea	
Graph Paper, (1 pkg)	1	pkg	
Colored Pencils, (bxs)	6	box	
Protractors, (bxs of 12)	2	box	
DVD - 'Finding the Energy Behind the Energy'	1	ea	
DVD - 'Lucky'	1	ea	
DVD - 'The Story of Petroleum'	1	ea	
DVD - 'Exploring the Illinois Basin'	1	ea	
DVD - 'Cooking up Crude'	1	ea	
CD - 'Core Energy Math Curriculum'	1	ea	
CD - 'Core Energy Math PowerPoint'	1	ea	
TI-30XS Calculators	25	ea	
TI-84Plus Graphics Calculator	1	ea	
IPRB 6" Rulers	30	ea	
vis-à-vis, (set of four)blue,black,green,red	10	set	
IPRB Pencils	30	ea	

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