

<p>Activities</p> <p>Using information on the “Energy Information Administration” website, students will research different questions dealing with petroleum production and products.</p> <p>Students will use the computer to access the “Energy Kid’s Page” at <a href="http://www.eia.doe.gov/kids/energyfacts/sources/non-renewable/oil.html">www.eia.doe.gov/kids/energyfacts/sources/non-renewable/oil.html</a></p> <p>Students will answer a list of questions pertaining to petroleum processing and products.</p>	<p><i>Worksheet 5-5— Lesson Plan Format</i> (adapted with permission)</p> <p>Subject: Science 6th Grade</p> <p>Lesson Name: Petroleum Scavenger Hunt</p> <p>Class: Mrs. Stewart's 6th grade Science class</p> <p>Date: March 10, 2009</p> <p>Big6™ Skills</p> <p>Task Definition</p> <p>Information Seeking Strategies</p> <p>Location &amp; Access</p> <p>Use of Information</p> <p>Synthesis</p>	<p>Teacher: Michele Stewart and Laura Allen</p> <p>Location: North Fremont Middle School</p> <p>Unit Context: Using Earth's Natural Resources</p> <p>Idaho Science Standards</p> <p>Standard 5.3: Understand the importance of natural resources and the need to manage and conserve them.</p>
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The activity will be graded based upon complete and correct answers.	Evaluation
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Learning Context: Unit objectives:  
Students will know:

- how oil is formed
- where we get our oil
- what fuels are made from crude oil
- how does oil impact the environment

Materials/Resources: Student science textbook, Computer lab, Energy Kid's Page website

Evaluation: Points will be given based upon completeness of answers.

Notes: Make sure students are on the correct webpage at the beginning of activity!

*Worksheet 5-5—  
Lesson Plan  
Format*

(adapted with permission)

Teacher: Michele Stewart and Laura Allen

Subject: Science 6th Grade

Lesson Name: Hydrogen—An Electrolysis Experiment

Location: North Fremont Middle School

Class: Mrs. Stewart's 6th grade Science class

Unit Context: Using Earth's Natural Resources

Date: March 10, 2009

Activities

Students will research the various methods used today to produce hydrogen. After determining the different methods, students will perform a hydrolysis experiment in which they separate hydrogen from water.

The entire class will discuss where to find information on Hydrogen and using Hydrogen for energy sources. Students will determine which resources would be best suited to answer their question.

Big6™ Skills

Task Definition

Information Seeking Strategies

Idaho Science Standards

Standard 5.3: Understand the importance of natural resources and the need to manage and conserve them.

Students will use the Lili databases and books in the library to find information on Hydrogen.	Location & Access
The students will use the information found in their sources to write a one-paragraph summary on Hydrogen uses.	Use of Information
Using the information in their summary paragraph, students will apply that knowledge to an experiment separating water into oxygen and hydrogen.	Synthesis
Students will attach their summary paragraph to their lab paper. Teacher will grade the paragraph and lab paper.	Evaluation

Learning Context: Unit objectives:

Students will know:

- \* how to classify natural resources as renewable and non renewable
- \* how natural resources can be managed
- \* the effects of human activities on resources
- \* some alternative energy sources in place of fossil fuels

Materials/Resources: Student science textbook, Library, computer lab for Lili databases. Use elibrary and elibrary curriculum databases found on Lili.

(1 set of the following materials for each student group)

- One 6-volt lantern battery. You can also use a solar panel and either a reading lamp or the sun as your energy source.
- Tap water
- Two wire test leads with double-ended alligator clips. If you are using a solar panel as your energy source, you will need a wire with an alligator clip at only one end.
- Aluminum foil — 2 pieces, each about 6 cm x 10 cm
- Salt
- 400–1000 milliliter (ml) clear beaker or small, clear plastic tub

Evaluation: Students will complete a lab paper and correctly answer questions associated with the activity. A rubric using the 6 traits of writing will be used to grade the summary paragraph.

*Worksheet 5-5—  
Lesson Plan  
Format*

(adapted with permission)

Teacher: Michele Stewart and Laura Allen

Subject: Science 6th Grade

Lesson Name: Reduce, Reuse, Recycle – Trash Art

Location: North Fremont Middle School

Class: Mrs. Stewart's 6th grade Science class

Unit Context: Using Earth's Natural Resources

Date: March 10, 2009

Activities

Students will use recycled materials such as plastic bottles, aluminum cans, paper, or cardboard boxes to create a piece of art or classroom decorations

After discussing recyclable materials, the students will gather a variety of recyclable materials and design their own piece of art.

A classroom art show will display the student's work. A panel of judges will decide on a first, second and third place winner.

Big6™ Skills

Task Definition

Synthesis

Evaluation

Idaho Science Standards

Standard 5.3: Understand the importance of natural resources and the need to manage and conserve them.

Learning Context: Unit objectives:

Students will know:

- \* how to classify natural resources as renewable and non renewable
- \* how natural resources can be managed
- \* the effects of human activities on resources

Materials/Resources: Student science textbook, recyclable materials (a wide variety), art supplies such as tape, scissors, glue, paint, markers, etc....

Evaluation: This will be graded based on participation. A fun art show with a few awards will be given out to projects that exhibit creativity and originality.

Notes: Need faculty members to act as judges for art show!