



## PLT Activity Connections to the Gulf Oil Spill

More than four million barrels of oil spilled into the Gulf of Mexico during the 87-day period following the explosion at the Deepwater Horizon drilling rig on April 20, 2010. The environmental and social effects of the Gulf Oil Spill will continue to draw the attention of educators for years to come as scientists continue to learn more about The Deepwater Horizon blowout and its impacts over time. Help teach your students about this event using PLT activities.

---

### PLT's PreK-8 Guide:

#### **Activity 36: Pollution Search**

(Part A: Grades 2-6, Part B: Grades PreK-2)

*Here's a way for your students to take a closer look at pollution: what it is, what its sources are, and what people can do to reduce it. Students will identify forms of pollution and describe the effects that various pollutants can have on people, wildlife, and plants.*

Connections: Students will learn about water pollution, oil spills, point source pollution, non-point source pollution, hazardous wastes, pollution controls, Clean Air Act, and the Clean Water Act (the Federal Water Pollution Control Act) through this activity.

Useful websites:

1. Washington Post News Article – “A Year After BP Oil Spill, Fate of Gulf Ecosystem Remains Murky” – ([http://www.washingtonpost.com/national/a-year-after-bp-oil-spill-fate-of-gulf-ecosystem-remains-murky/2011/04/15/AFH3FEwD\\_story.html](http://www.washingtonpost.com/national/a-year-after-bp-oil-spill-fate-of-gulf-ecosystem-remains-murky/2011/04/15/AFH3FEwD_story.html))
2. NOAA's Office of Education provides resources to help teachers teach about the oil spill ([http://www.education.noaa.gov/Ocean\\_and\\_Coasts/Oil\\_Spill.html](http://www.education.noaa.gov/Ocean_and_Coasts/Oil_Spill.html))
3. How Do You Clean Up An Oil Spill? (<http://science.howstuffworks.com/cleaning-oil-spill.htm>)
4. Oil Recycling (<http://www.recycleoil.org/>)
5. Clean Water Act (CWA) (<http://www.epa.gov/oecaagct/lcwa.html>)

#### **Activity 39: Energy Sleuths**

(Part A: Grades K-3, Part B and C: Grades 4-8)

*There are different sources of energy. Some are renewable; some are nonrenewable. In this activity, your students will learn about the different sources, advantages and disadvantages to their use, and how energy is used in their daily lives. Students will identify different energy sources, describe some of the ways people use energy in their daily lives, and discuss the pros and cons of various energy sources from economic, social, and environmental perspectives.*

Connections: Students will learn about nonrenewable energy and fossil fuels through this activity.

Useful websites:

1. How Oil Drilling Works (<http://science.howstuffworks.com/oil-drilling.htm>)
2. How Oil Refining Works (<http://science.howstuffworks.com/oil-refining.htm>)
3. Oil Formation – Colorado Geological Survey – (<http://www.geotech.org/survey/geotech/Oil.pdf>)

### **Activity 59: Power of Print**

(Grades 6-8)

*Newspapers keep the community informed about current events and trends. In this activity, students will examine articles from different sections of the newspaper, comparing and contrasting the different types of words and styles they employ. Then students research opposing sides of a local environmental issue, and write both news articles and opinion pieces on the issue.*

Connections: Students can read news articles about the BP oil spill as a current event and a local environmental issue.

#### Useful websites:

1. Gulf Oil Spill One Year Later: Louisiana, Florida Residents Differ On Views Of Long-Term Effects Of Oil Spill – (<http://nanopatentsandinnovations.blogspot.com/2011/04/gulf-oil-spill-one-year-later-louisiana.html>)
2. Reuters.com – “A Year On, Gulf Still Grapples with BP Oil Spill” (<http://www.reuters.com/article/2011/04/15/us-oil-spill-anniversary-idUSTRE73E2OW20110415>)
3. Reuters.com – “Obama’s Oil Spill Chief Reflects a Year Later” (<http://in.reuters.com/article/2011/04/16/idINIndia-56379820110416>)
4. BP in the Media – Selected articles pertaining to BP’s Response to the Oil Spill (<http://www.bp.com/sectiongenericarticle.do?categoryId=9033612&contentId=7061851>)
5. New York Times – Search for Recent ‘BP Oil Spill’ articles – ([www.nytimes.com](http://www.nytimes.com))

### **Activity 71: Watch on Wetlands**

(Grades 7-8)

*If a duck can paddle it, it’s a wetland. If a duck can waddle on it, it’s not. If only wetlands could be defined as simply as this, wetlands issues and legislation would be less muddy. In this inquiry-based activity, students will conduct field studies in a local wetland, and learn how land use decisions and legislation affect wetland areas.*

Connections: Students generate a list of human activities that might reduce aquatic habitats and then identify reasons for and against each activity. Habitat loss, wetland loss.

#### Useful websites:

1. Smithsonian – Gulf Oil Spill: Science – “Smithsonian Holdings May Show Oil Spill’s Impact in Gulf” – (<http://ocean.si.edu/ocean-and-you/gulf-oil-spill/science>)
2. Reuters.com – “Factbox: Impact on Wildlife From the BP Oil Spill” – (<http://www.reuters.com/article/2011/04/15/us-oil-spill-wildlife-idUSTRE73E24620110415>)
3. Access web-based content and classroom activities addressing the science of oil spills and their effects on ecosystems ([http://www.windows2universe.org/teacher\\_resources/main/teach\\_oil\\_spill.html](http://www.windows2universe.org/teacher_resources/main/teach_oil_spill.html))
4. The Encyclopedia of Life ([http://www.eol.org/content/page/oil\\_spill\\_2010](http://www.eol.org/content/page/oil_spill_2010))
5. How Do You Clean Up An Oil Spill? (<http://science.howstuffworks.com/cleaning-oil-spill.htm>)
6. Ocean Currents Likely to Carry Oil Along Atlantic Coast (<http://www2.ucar.edu/news/ocean-currents-likely-to-carry-oil-spill-along-atlantic-coast>)
7. LDWF – Oil Spill and Coastal Habitat Loss (Pass a Loutre WMA) (<http://www.youtube.com/watch?v=cuZH3Z6uGE0>)

### **Activity 85: In the Driver's Seat**

(Grades 5-8)

*In this activity, students learn about gasoline, then explore fuel conservation and energy efficiency by simulating the distance they can travel on a set amount of gasoline using different vehicles.*

**Connections:** Students will learn about oil drilling, deep sea drilling, oil refineries, crude oil, and fuel consumption through this activity.

**Useful websites:**

1. How Hybrid Cars Work ([www.howstuffworks.com/hybrid-car.htm](http://www.howstuffworks.com/hybrid-car.htm))
2. How Oil Drilling Works (<http://science.howstuffworks.com/oil-drilling.htm>)
3. How Oil Refining Works (<http://science.howstuffworks.com/oil-refining.htm>)

### **Activity 86: Our Changing World**

(Grades 5-8)

*Patterns of change are evident in the Earth's global systems, particularly as they relate to both energy and resources. To help students see how changing one aspect of our world affects others, students make a graphic organizer connecting natural resources, energy, and human activities. They also research a global issue, thereby gaining an understanding of some of the issues facing us today as a global society.*

**Connections:** Students will understand the connections among the world's natural resources, energy, and human activities. They will analyze a global environmental issue in this activity.

**Useful websites:**

1. "Factbox: Gulf Oil Spill Was Among World's Worst" – (<http://www.msnbc.msn.com/id/42605057/ns/business/>)
2. EarthSky: A Clear Voice for Science – "Mandy Joye on the Gulf Oil Spill, One Year Later" – (<http://earthsky.org/water/mandy-joye-on-the-gulf-oil-spill-one-year-later>)
3. Smithsonian – Gulf Oil Spill: Science – "Smithsonian Holdings May Show Oil Spill's Impact in Gulf" – (<http://ocean.si.edu/ocean-and-you/gulf-oil-spill/science>)
4. Access web-based content and classroom activities addressing the science of oil spills and their effects on ecosystems ([http://www.windows2universe.org/teacher\\_resources/main/teach\\_oil\\_spill.html](http://www.windows2universe.org/teacher_resources/main/teach_oil_spill.html))
5. The Encyclopedia of Life ([http://www.eol.org/content/page/oil\\_spill\\_2010](http://www.eol.org/content/page/oil_spill_2010))
6. Global Impact of BP Oil Spill (<http://www.cbsnews.com/video/watch/?id=6589490n>)
7. LDWF – Oil Spill and Coastal Habitat Loss (Pass a Loutre WMA) (<http://www.youtube.com/watch?v=cuZH3Z6uGE0>)
8. Real time data to determine Oil Spill Cleanup response ([http://secoora.org/classroom/observing\\_overview/buoys\\_boats\\_teachers/oil\\_spill\\_cleanup](http://secoora.org/classroom/observing_overview/buoys_boats_teachers/oil_spill_cleanup))

### **Activity 88: Life on the Edge**

(Grades 4-8)

*Patterns of change can be observed in the diversity of species on Earth. In this activity, students will become advocates for endangered species of plants or animals, and create "public relations campaigns" on behalf of these species.*

**Connections:** This activity explains that habitat destruction/ habitat loss is a major threat to plants and animal species. Students can link the oil spill to habitat loss and to endangered plant and animal species.

**Useful websites:**

1. Gulf Oil Spill Endangers Wildlife and Natural Habitats (<http://www.edf.org/page.cfm?tagID=54954>)
2. Oil Spill Threatens Iconic Fish With Saw-Like Snout ([http://www.world-science.net/othernews/100527\\_sawfish.htm](http://www.world-science.net/othernews/100527_sawfish.htm))

3. U.S. Endangered Species Listing Proposed for Florida's Sawfish  
(<http://planetsave.com/blog/2010/06/12/u-s-endangered-species-listing-proposed-for-floridas-sawfish/>)
4. Exxon Valdez: Tidal waters still troubled  
([http://www.sciencenews.org/view/generic/id/42311/title/Exxon\\_Valdez\\_Tidal\\_waters\\_still\\_troubled](http://www.sciencenews.org/view/generic/id/42311/title/Exxon_Valdez_Tidal_waters_still_troubled))

### **Activity 96: Improve Your Place**

(Grades 5-8)

Each living thing has a habitat – a place to live that suits its needs. For human beings, the community they live in is their habitat. In this activity, students are encouraged to plan and carry out a service learning project that focuses on making positive environmental changes in their community.

**Connections:** Students will identify ways they can improve their local area and carry out a plan to improve it.

**Useful websites:**

1. Real time data to determine Oil Spill Cleanup response  
([http://secoora.org/classroom/observing\\_overview/buoys\\_boats\\_teachers/oil\\_spill\\_cleanup](http://secoora.org/classroom/observing_overview/buoys_boats_teachers/oil_spill_cleanup))
2. How Do You Clean Up An Oil Spill? (<http://science.howstuffworks.com/cleaning-oil-spill.htm>)
3. How You Can Help Wildlife Impacted by the BP Oil Spill (NWF)  
(<http://www.nwf.org/Wildlife/Wildlife-Conservation/Threats-to-Wildlife/Oil-Spill.aspx>)

## **PLT's Energy & Society kit:**

### **Activity 5: In the Driver's Seat**

(Grades 5-8)

*In this activity, students learn about gasoline, then explore fuel conservation and energy efficiency by simulating the distance they can travel on a set amount of gasoline using different vehicles.*

**Connections:** Students will learn about oil drilling, deep sea drilling, oil refineries, crude oil, and fuel consumption through this activity.

**Useful websites:**

1. How Hybrid Cars Work ([www.howstuffworks.com/hybrid-car.htm](http://www.howstuffworks.com/hybrid-car.htm))
2. How Oil Drilling Works (<http://science.howstuffworks.com/oil-drilling.htm>)
3. How Oil Refining Works (<http://science.howstuffworks.com/oil-refining.htm>)
4. How Do You Clean Up An Oil Spill? (<http://science.howstuffworks.com/cleaning-oil-spill.htm>)

## **PLT's secondary module *Forests of the World:***

### **Activity 4: Analyzing Patterns of Forest Change**

(Grades 9-12)

*Human activities and other forces can change forests in a variety of different ways. In this activity, students will identify global trends in forest cover and, using maps and historical accounts, they will analyze how particular forests have changed over time.*

**Connections:** Students will learn about habitat fragmentation, habitat loss, deforestation, and how human activities can change forests through this activity.

**Useful websites:**

1. Oil Spill Could Ravage Gulf Coast Mangroves (<http://www.mnn.com/earth-matters/wilderness-resources/stories/oil-spill-could-ravage-gulf-coast-mangroves>)
2. LDWF – Oil Spill and Coastal Habitat Loss (Pass a Loutre WMA)  
(<http://www.youtube.com/watch?v=cuZH3Z6uGE0>)

# PLT's secondary module *Focus on Risk*:

## **Activity 2: Things Aren't Always What They Seem**

(Grades 9-12)

Students will identify their perception of the relative degree of risk associated with technologies, environmental hazards, and everyday activities. They will also have the opportunity to share their ideas as they compare and contrast their perceptions with those of others, including experts and lay people.

Connections: Students will evaluate risk associated with items such as hazardous waste sites, drilling for oil, and destruction and fragmentation of wildlife habitats through this activity.

### Useful websites:

1. How Oil Drilling Works (<http://science.howstuffworks.com/oil-drilling.htm>)
2. How Oil Refining Works (<http://science.howstuffworks.com/oil-refining.htm>)

## **Additional Information:**

### Louisiana Department of Education:

[http://www.louisianaschools.net/lde/misc/oil\\_spill\\_resources.aspx](http://www.louisianaschools.net/lde/misc/oil_spill_resources.aspx)

### BP Gulf of Mexico Response Website:

(<http://www.bp.com/extendedsectiongenericarticle.do?categoryId=40&contentId=7061813>)

([http://www.youtube.com/user/BPplc?v=KKcrDaiGE2s&feature=pyv&ad=5980654333&kw=oil%20spill&nicam=USCSBaselineQ409&nisrc=Google&nigrp=Non\\_Brande d\\_Crisis\\_Management&niadv=General&ni pkw=gulf\\_oil](http://www.youtube.com/user/BPplc?v=KKcrDaiGE2s&feature=pyv&ad=5980654333&kw=oil%20spill&nicam=USCSBaselineQ409&nisrc=Google&nigrp=Non_Brande d_Crisis_Management&niadv=General&ni pkw=gulf_oil))

### Environmental Defense Fund:

[http://www.edf.org/page.cfm?tagID=54895&gclid=CNOig\\_L8saICFQuB5QodIH6oTA](http://www.edf.org/page.cfm?tagID=54895&gclid=CNOig_L8saICFQuB5QodIH6oTA)

### Louisiana Department of Wildlife & Fisheries' Website & Youtube Channel:

<http://www.wlf.louisiana.gov/oilspill/> - Use to view latest updates.

<http://www.youtube.com/user/LAWildlifeFish>

### New York Times - Investigating the Cause of the Deepwater Horizon Blowout:

<http://www.nytimes.com/interactive/2010/06/21/us/20100621-bop.html>