Oil in the Middle East
A Response Group Activity

Teacher Directions:
1. Divide class into 5 groups.
2. Provide reading materials and question cards for each group.
3. Allow teams adequate time to read and review the content, and to answer all questions as a group. (I also require my students to take individual notes.)
4. Jigsaw teams or allow each team to present their findings on the topics at hand.
5. Review all key content at the end of the class as a whole group to assess student understanding.

Optional:
Allow students additional time to further research their topics for class presentations.

Rotate materials from group to group to allow every group the opportunity to review all materials.

Display information in reading centers where students can individually or in small groups read and review the activity information.
Topic 1: Geography of the Middle East
The Middle East is located where Europe, Asia, and Africa meet. It is surrounded by seas, such as the Mediterranean Sea, Black Sea, and Caspian Sea in the North, and the Red Sea and Arabian Sea in the west and south. It is also covered by deserts, like the million square mile Arabian Desert across the Arabian Peninsula.

This land, with the exception of the Mediterranean region, is hot and dry, offering little vegetation and little hope for valuable resources. But, deep in the crust of the Earth is crude oil, or petroleum, and it is a very valuable resource.

Modern countries around the world use petroleum as their primary energy source. It fuels many forms of transportation, and is also processed for electricity that is used in homes, factories, and for other goods.

While the Arabian Desert is a vast reserve of oil, the Persian Gulf is another great reserve in the Middle East. This waterway is shared by a number of countries in the region, and the competition for the control of the oil is as common as the current supply.

Despite the current supply of oil in the region, it may not always be that way. Oil is a nonrenewable resource, meaning it cannot be replaced when the supply runs out. This fact leaves many countries of the world searching for ways to solve this problem for future generations. Options include water power, wind power, and many other ideas for using our resources more responsibly.
Oil Reserves and Shipping Lines in the Middle East

**Geography of the Middle East**
1. What is the location of the Middle East?

2. How does the region appear to NOT have valuable resources?

3. What is crude oil? Where is it found?

4. Why is this resource so valuable?

5. In what waterway can most of the regions oil reserves be found?

6. Based on the information and image provided, what geographic features of this region benefit its oil industry? Explain.

7. Considering the fact that oil is a nonrenewable resource, what should this region do to protect its future?
Topic 2:
The Processing of Oil
Oil is a very valuable resource for many people around the world, but the creation and processing of oil is not a simple task. For oil to be available, it had to start its development millions of years ago.

Oil started off as little plants and animals that died and sank to the ocean floor. The remains were then covered by layers of sand, which provided pressure and heat to transform the waste into oil. But, in addition to the creation of the oil, the same layering process created rock. The rock’s pours would fill with the oil, creating the great reserves that are below the Earth’s surface today.

Most of the oil in the ground is covered by impermeable rock, or a cap rock that does not allow the oil to escape the ground to the surface. This rock must now be drilled through for oil producers to collect the supply they need.

In the Middle East, there are large amounts of oil due to the area being underwater millions of years ago, creating a vast region of oil reserves. In addition, the movement of the Earth’s tectonic plates in the region shifted and collided to create a perfect home for the oil reserves over the millions of years.

Now, once the oil reserves are located, the area must be drilled for the crude oil to be pumped to the surface for further processing. This is sometimes a challenging and time consuming process. It must then be heated and refined to make it useful in our homes and vehicles.

Despite the oil being so available in the region, few countries have the most access. Saudi Arabia, with its giant reserves across the Arabian Desert have the greatest access, while smaller countries must collect from their limited territory or waterway control. Still, even the smallest Middle Eastern nations have far more access than most other countries of the world.
The Processing of Oil

Top 10 Oil Producing Countries in Middle East

- Saudi Arabia
- Iran
- Iraq
- United Arab Emirates
- Kuwait
- Oman
- Yemen
- Syria
- Saudi Arabia
- Iran

Top 10 Oil Producing Countries of the World

- Russia
- Saudi Arabia
- USA
- Iran
- Mexico
- China
- Canada
- Norway
- UAE
- Venezuela

Oil Reserves (in millions of barrels)
The Processing of Oil Question Card

1. What is process that formed oil reserves?

2. Where is oil stored?

3. What is impermeable rock? Why is it significant to the processing of oil for humans?

4. Why does the region of the Middle East have so much oil?

5. What is the process to bring oil out of the ground?

6. What are the top 10 oil producing countries in the Middle East?

7. How could the distribution of the world’s oil resources cause conflict in our world?
Topic 3: 
The Human Impact
The production of oil in the Middle East has made some countries very wealthy, but that wealth does not always distribute to all of the people in a country. In most of the oil producing countries, a very small percentage of the population see the extreme wealth that comes from the industry. However, some changes that occur in the countries do make life better for everyone.

Throughout the region, life expectancy and infant mortality rates have greatly improved. In addition, the per capita GDP (Gross Domestic Product), or the average income of wealth in a country per person, has also improved. Still, this is computed on averages, so the distribution of the wealth in each country can show a very different picture.

The Human Development Index is another measurement tool that evaluates the well-being of the population. It considers the population’s access to education and health care, in addition to the standard statistics. In the Middle East oil producing countries, recent evaluations show that many of the countries that are high in GDP are also ranked highly in HDI. But, this is not always the case. Some countries that are very wealthy due to their oil production do not share the wealth with their population. In Yemen, a large percent of the population still lives in extreme poverty. And In Iraq, where the country was under the rule of dictator Saddam Hussein for generations, the oil money did not make it into the hands of the people, nor did it improve their living conditions. However, since Hussein was removed from power, the country is on track to access better healthcare, education, and an improved living standard.
Per Capita GDP of Middle Eastern Countries, 2010

GDP (in U.S. dollars)

<table>
<thead>
<tr>
<th>Country</th>
<th>Middle East Rank</th>
<th>World Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bahrain</td>
<td>1</td>
<td>40</td>
</tr>
<tr>
<td>Kuwait</td>
<td>2</td>
<td>44</td>
</tr>
<tr>
<td>Qatar</td>
<td>3</td>
<td>47</td>
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<tr>
<td>UAE</td>
<td>4</td>
<td>49</td>
</tr>
<tr>
<td>Oman</td>
<td>5</td>
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<td>6</td>
<td>77</td>
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<tr>
<td>Iran</td>
<td>7</td>
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<tr>
<td>Syria</td>
<td>8</td>
<td>106</td>
</tr>
<tr>
<td>Yemen</td>
<td>9</td>
<td>149</td>
</tr>
<tr>
<td>Iraq</td>
<td>10</td>
<td>182</td>
</tr>
</tbody>
</table>

Human Development Index for Middle Eastern Countries, 2010

The Human Impact
The Human Impact Question Card

1. In general, how has the wealth in the region from oil benefitted the people in the Middle East?

2. How is the wealth in the region divided among the people?

3. What countries experience the highest per capita GDP based on their oil wealth?

4. What impact does the wealth from oil have on the children of the region?

5. Does poverty exist in the Middle East? Explain.

6. What other factors may play a role in the distribution of wealth in the region?

7. Based on the information, in which country should individuals want to live? Why?
Topic 4:
The Export Business
Since oil is a nonrenewable resource, the countries of the Middle East are very careful to control the export (or selling to other countries) of their reserves and to control the pricing of the oil to maintain steady income for their countries.

Since competition can cause supply and prices to be unsteady, oil-exporting countries in the Middle East formed OPEC, Organization of the Petroleum Exporting Counties, in 1960.

Today, OPEC has 12 member countries, including some outside of the Middle East. These include Algeria, Angola, Ecuador, Iran, Iraq, Kuwait, Libya, Nigeria, Qatar, Saudi Arabia, United Arab Emirates, and Venezuela.

The mission of OPEC is “to coordinate and unify the petroleum policies of its Member Countries and ensure the stabilization of oil markets in order to secure an efficient, economic and regular supply of petroleum to consumers, a steady income to producers and a fair return on capital for those investing in the petroleum industry.”

High energy using countries of the world also work to control the supply and price of oil that is coming into their counties, or being imported. Some countries, such as the United States works to have other oil resources on hand, while countries like Japan are working to harvest other sources of energy to ensure their supply in the future.
Oil Imports by Country

The Export Business
The Export Business Question Card

1. Why do exporting countries want control in the oil industry?

2. What is OPEC? Who are the member countries?

3. What is the mission of OPEC (in your own words)?

4. Why do importing countries want some control in the exporting of oil?

5. What is the U.S. doing to protect their energy future?

6. What is being done by Japan to protect its future?

7. What plan should be put into place to protect the world’s energy future?
Topic 5: World Connections
Since oil is a nonrenewable resource and in high demand around the world, the control of the oil reserves in the Middle East is often in contention. This has led to conflicts among the nations of the region, internal chaos for the people of these regions, and international military involvement to protect the people of the region and the valuable resource.

In 1991, the Persian Gulf War began as a worldwide reaction to Iraq’s invasion of Kuwait, a smaller oil-controlling country. While international military forces pushed Iraq out of Kuwait, the Iraqi troops set fire to the oil wells on their retreat, destroying 730 oil wells and causing irreversible damage to the region.

Even in modern times, the control of the oil region is one often in contention among the leading countries of the world. The highest energy users, including the U.S., often see it as their role to protect the region, while those who live in the region do not want the outside control or influence.

This leads to the entire world needing to think for futuristically in our use and creation of energy. With a number of renewable energy sources, the research must focus on utilizing those sources rather than processing the nonrenewable sources, such as oil.
World Connections

Hydroelectric Power  Wind Power

Energy Smart Cars  Solar Power
World Connections Question Card

1. What is the conflict or contention over oil in the Middle East?

2. Why did the Persian Gulf War begin in 1991?

3. What was the outcome of the Persian Gulf War?

4. Who wants to control the oil region? Why do they want to control it?

5. What needs to be the future regarding oil and energy?

6. What are options for cleaner or renewable energy?

7. Why hasn’t the world already switched to more renewable sources for energy?
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<td>Considering the fact that oil is a nonrenewable resource, what do you think this region should do to protect its future?</td>
<td>How do you think the distribution of the world's oil resources cause conflict in our world?</td>
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