Extension Activity: Oil Spills and Mixture Separation Webquest

Review of Types of Mixtures and Separation Techniques

Research the answers to the following questions using Google. Here are a few recommended links to help you get started:

- Separation of Mixtures Using Different Techniques: http://amrita.olabs.edu.in/?sub=73&brch=2&sim=96&cnt=1
- Separation of Liquids: http://www.bbc.co.uk/schools/gcsebitesize/science/add_edexcel/covalent_compounds/separationrev1.shtml
- Separation of Solids, such as sand and salt: https://www.scientificamerican.com/article/bring-science-home-separate-solutions/

1. Explain the difference between a homogeneous mixture and a heterogeneous mixture. Give an example of each.

2. a) Describe how to separate a mixture of oil and water in a lab. You may want to draw a picture to help illustrate the concept.

   b) What property of the oil and water is used to separate them?

   c) Why can’t this technique be used to clean-up an oil spill in the ocean?

3. a) Describe how to separate a mixture of sand and salt in a lab.

   b) What property of the salt versus the sand is used to separate them?
Oil Spills and Clean-up Links

1. Find an article on a recent oil spill. Give the location of the spill, the amount of oil spilled, and cite the website of your source.

2. Use the following website to help research techniques for cleaning up oil spills in oceans, as well as in rivers and lakes:  http://www.oilspillprevention.org/

Describe each of the following techniques:

a) Dispersants

b) In-Situ Burning

c) Skimmers

d) Sorbents

3. What are 3 primary-response objectives to cleaning up an oil spill in the ocean?