Environmental Science

Lesson: April 8, 2020

Learning Target:

Students will identify types of Ocean pollution and how oil spills affect more than water quality.

Let's Get Started:

Perform a search to find at least 2 oil spills. On a separate piece of paper, write when and where they happened.



Jump start answer key:

- 1. Answers can vary from any of these spills:
 - a. The Amoco Cadiz Oil Spill (1978)
 - b. The Castillo de Bellver Oil Spill (1983)
 - c. The Incidents at the Nowruz Oil Field (1983)
 - d. The Kolva River Spill (1994)
 - e. The Mingbulak (or Fergana Valley) Oil Spill (1992)
 - f. The Atlantic Empress Oil Spill (1979)
 - g. Deepwater Horizon blast, Gulf of Mexico (2010)
 - h. Iraq Army releases oil, Persian Gulf (1991)
 - i. Lxtoc blows out, Bay of Campeche (1979)

Lesson Activity:

Directions:

Watch the video about the Exxon-Valdez oil spill. Write your responses on your page for the day.

- 1. What were the long term effects on the wildlife and environment?
- 2. What were the long term effects on the local economy?

Watch Video Here: Exxon Valdez Oil Spill

Application/practice:

After watching the video, choose one of the oil spills you found in your starter question search and answer the following questions about it:

- 1. What was the name, location, and cause of the spill?
- 2. What was the impact on the environment and wildlife at the time of the spill?
- 3. Were there any long term effects on the environment or wildlife?
- 4. What effects did the spill have on the economy?
- 5. Could the spill have been prevented? If so, how?
- 6. What cleanup measures were taken and were they successful?

^{*}Remember keep your responses brief and to the point.

Answer key:

Answers will vary, but remember brevity. Be precise with your responses as to convey the most important portions.

More Practice:

After watching this <u>short video</u>, you will be combining what you know and researching one more possible method for cleaning up oil spills. In your response on your paper you will need to respond to the following based on what you find.

- 1. What is involved in cleanup?
- 2. What materials are needed?
- 3. How successful the method is at restoring the environment to its pre-spill state?
- 4. Between the method in the video and the one you researched, which do you think is the better choice and why?

Answer key:

Answers will vary, remember you can think outside of the box with materials. Similar to how the hair was a biologic item, you could have selected other biologic materials. You could have also selected any of the synthetic methods mentioned with the BP oil spill.

Additional Practice

If you need to review over the possible alternatives to cleaning up after spills and other toxic disasters here is another video resource:

7 Organisms working to clean up