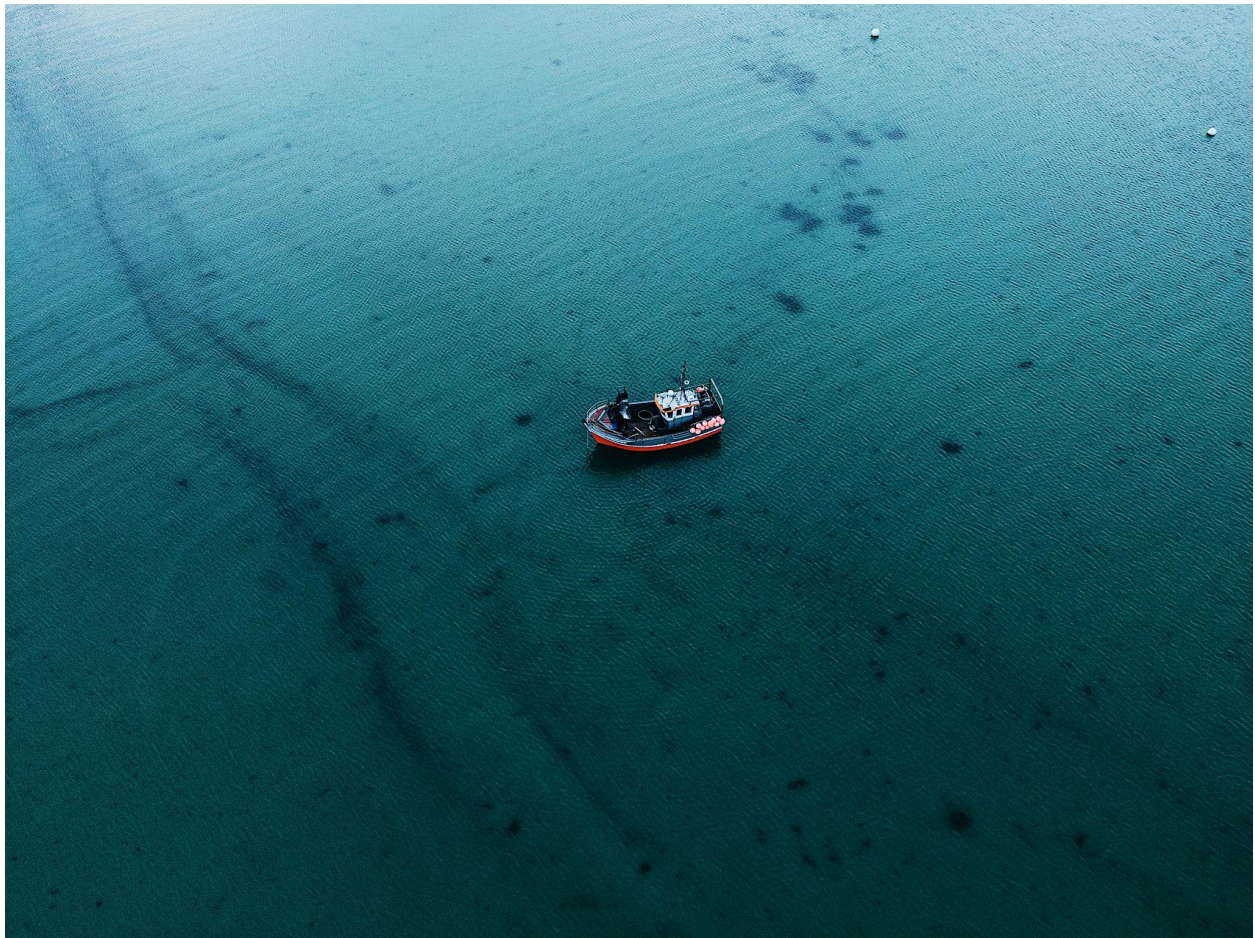




## Lesson + Activity: Oil Spill



Grade Level(s)	Timeframe
K-2, 3-5	45 min

## **ABSTRACT**

Petroleum is a substance that has become increasingly important in our way of life, used in transportation, industrial settings, and consumer products. It can be found beneath the seabed and requires complex off shore drilling rigs to extract. Offshore drilling presents environmental challenges both offshore and onshore! Disasters like oil spills have become commonplace and requires engineering to solve.

45 minutes

## **EQUIPMENT AND SUPPLIES**

Per Class:

- Equipment to measure oil, water. All measurements approximate.
- Dish soap


Per Group:


- 0.5 - 2L container to simulate ocean (eg food storage container)
- water to fill container 2/3
- 15mL vegetable oil (pour over ocean)
- 1 roll paper towels
- 1 plastic bag or large cup for used materials
- 10 cotton balls
- 5 feathers (eg from craft or dollar store)
- 5 Q-tips
- small plate and dull knife (optional, to transfer drop of dish soap)
- 4 fiber cloth squares (10cmx10cm approx, eg old towel, dish cloth, few layers of good paper towel)


Per Student:

- 2 hand wipes (large, for cleanup)

## LESSON FILES

 004\_2.docx

 004\_3.pptx

 004\_4.docx

## GETTING READY

### Steps

- Present to class information about oil spills; why do we need oil? Why is it bad for the environment? What are examples of oil spills in the past? What impact did they have? Etc.
- Split class into group and distribute containers with water and oil, tell them they are engineers who have been hired to clean up the oil spill.
- Explain the price guide, each team has \$X and can only purchase certain items to try out, what do they think would work best? Why?
- Let them try to clean up the oil with the materials they purchased.
- Once they have tried their first hypothesis, let them try the different materials.
- Once everyone is done, show them the effect soap has on oil. Explain the reaction.
- Try the other tools again, after the soap has been added.
- Debrief: what worked best? What was their plan to balance budget while getting the cleanup done?

Powerpoint provided

Inspiration from:

<https://stem.northeastern.edu/programs/ayp/fieldtrips/activities/oilspill/>