

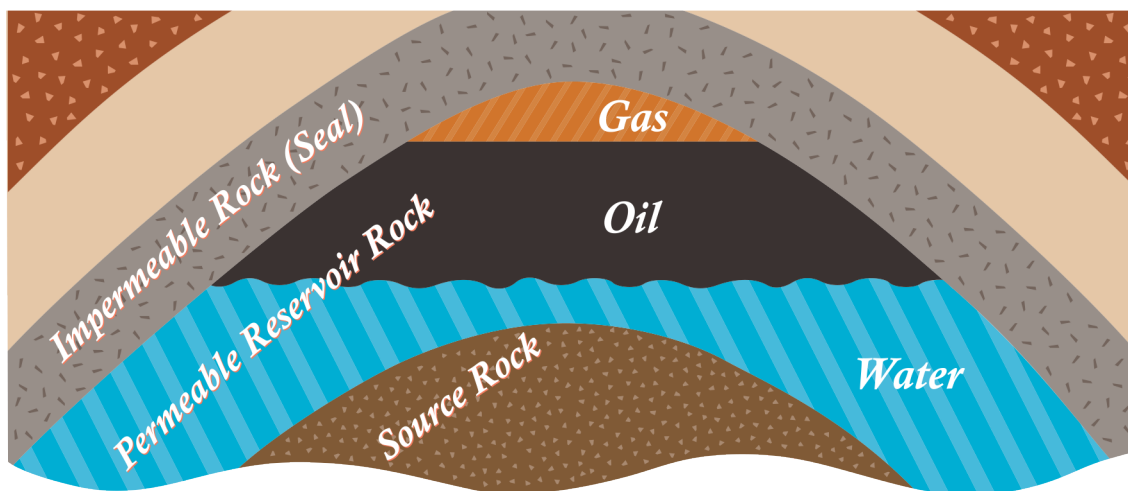
EXPERIMENT

Hydrocarbon Hangout

Background

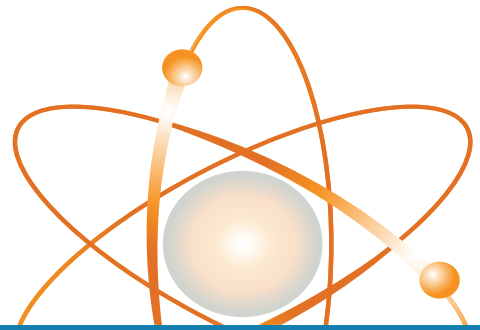
Oil and natural gas are found in underground traps. A trap consists of a source rock that produces the hydrocarbons, a reservoir rock that stores the hydrocarbons, and a cap rock, or seal, that prevents the hydrocarbons from escaping to the surface. In this activity, you'll learn about some important properties of both reservoir rock and the hydrocarbons it contains.

Reservoir rock is any porous, permeable rock, like sandstone or limestone, in which hydrocarbons collect. This activity demonstrates just how much gas and oil these seemingly solid rocks can hold.



Materials

- 1 clear jar
- 1 measuring cup
- tap water
- playground or beach sand



EXPERIMENT

Hydrocarbon Hangout (continued)

Steps

1. Fill a small jar to the top with sand. Is the jar full? Explain your answer.

2. Predict how much water you can add to the jar without it overflowing.

Prediction: _____

3. Fill a measuring cup with water. Note the starting amount. Now slowly pour as much water as you can into the jar of sand. How much water can the jar of sand actually hold?

Actual amount of water: _____

4. Where did the water go?

5. What substance did the water replace?

6. Where did that substance go?

7. How are the substances in your jar like the reservoir rock, water, oil, and natural gas in a gas trap? How are they different?
