

## getting methane from coal

**Title:** Getting Methane From Coal

**Level:** Secondary

**Day/Time:**

**Objective:**

Synthetic crude oil can be produced from coal through coaliquification, and coal can be converted to natural gas (methane) through a coal gasification process. This gas produced from coal, could be made into gasoline for cars, kerosene for jet planes, or mixed with natural gas for home heating and industrial use.

**Materials:**

Lump of soft coal (about the size of a baseball)

Two-pound coffee can

Funnel

Small glass bottle (such as spices come in)

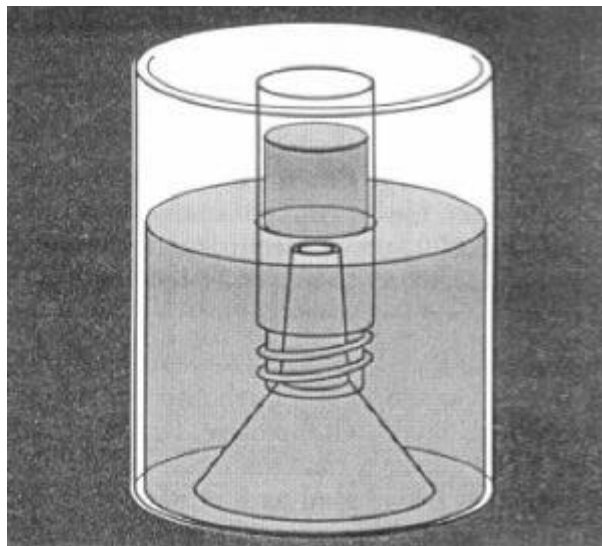
**Activity:**

Wrap the lump of coal in a sturdy rag and hammer it into a fine powder. Plug the narrow end of the funnel with a wad of a soft paper and pour the coal powder into the wide end of the funnel. Holding the funnel upright, invert the coffee can over it. Then pressing the funnel against the bottom of the can, turn the can upright and remove the paper from the end of the funnel.

Holding the funnel tight against the bottom of the can, gently pour water into the can until it is about an inch above the small end of the funnel. The water, of course, will enter the funnel. Submerge the small bottle in the water and fill it completely, turn the bottle upside down, keeping it under water so that no air gets into it. Carefully maneuver it over the funnel-- again staying under water, and lower the bottle so it rests on the funnel.

Set the can aside, and in a day or so you will see a large bubble at the upper part of the bottle. The bubble will contain mostly methane. It is the same kind of gas that formed when decaying plant matter began turning into coal eons ago, back when dinosaurs plodded the earth. Just think, that methane could have been trapped for millions of years-- until you released it.

getting methane from coal



Provided by National Energy Foundation.