

Name:

Fossil fuels

Energy is an important commodity. Nearly 2/3 of the world's energy comes from fossil fuels such as oil, natural gas and coal.

Can you think of at least 2 important uses for fossil fuels?



Thinking about their name, where do you think fossil fuels come from? What is the raw material that produces fossil fuels?

How do you think they could have been formed? How long does this process take?



How do we get the energy from fossil fuels?
What are some by-products of this process?

What kinds of energy are released from fossil fuels? How are these useful?

Oil drills are typically in the ocean or in locations that are near or were once covered by an ocean. Coal mines can be found anywhere on land. What are some places in the world where crude oil is drilled and coal is mined?

Science & Technology

Name:

Take a look at the information contain in the table below. Shown are the chemical compositions of crude oil, coal and plankton.

| | Crude petroleum oil | Coal | Marine Plankton |
|------------|---------------------|------------|-----------------|
| Carbon | 85% | 70% | 29% |
| Hydrogen | 10% | 19% | 49% |
| Nitrogen | 1% | 2% | 16% |
| Oxygen | 1% | 7% | 4% |
| Sulfur | 3% | 2% | 0% |
| Phosphorus | 0% | 0% | <0.5% |
| Silicon | <0.1% | 0% | <2% |

What differences do you see in the chemical composition of the fossil fuels compared to the living plankton?

Based on what you see in the table and just answered, what do you think is the most important component of fossil fuels for generating energy?

What can cause the chemical composition of a living organic thing change into a product with the chemical composition of a fossil fuel?

What is a geological phenomenon that could explain what is happening to the organic material in order to form fossil fuels?