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A Place in Space

Sequencing

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The Best Holiday Ever

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Fossil Fuels



Written by George Ivanoff

Fossil Fuels

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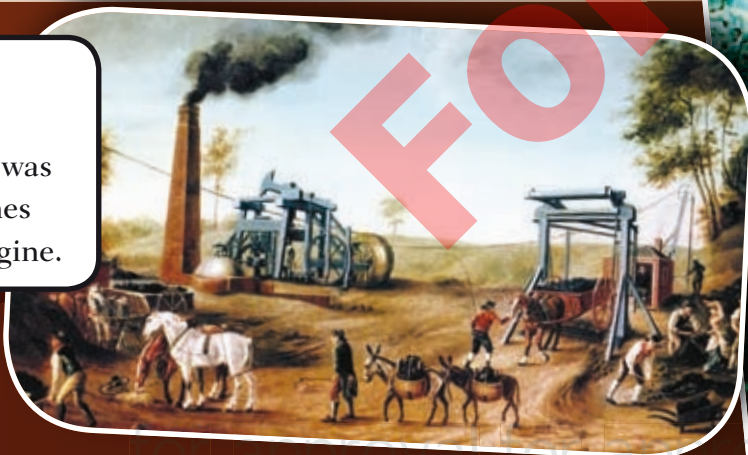
Introduction

Fossil fuels are fuels such as coal, oil, and natural gas found underground. People use them as a source of energy. Fossil fuels were formed from plant and animal remains. Over time, heat and pressure from the rock around them turned these remains into the form they have today.

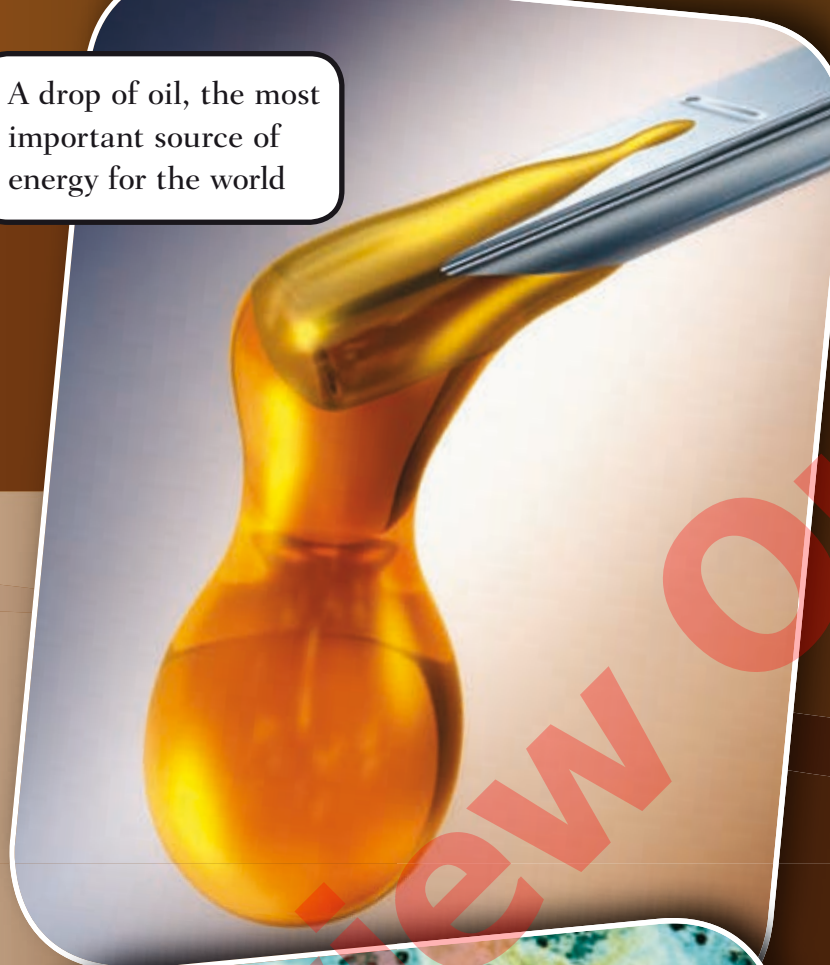
The three main fossil fuels are coal, oil, and natural gas. The kind of fossil fuel depends on the kind of plant and animal remains it comes from. The amount of heat and pressure that they have been subjected to is also important.

Fossil fuels take millions of years to form. Because they are in Earth's crust, people have to mine or drill for them. People cannot make or replace them, so fossil fuels will eventually run out.

The beginning of the modern economy was fueled by coal, which was used to power machines such as this steam engine.

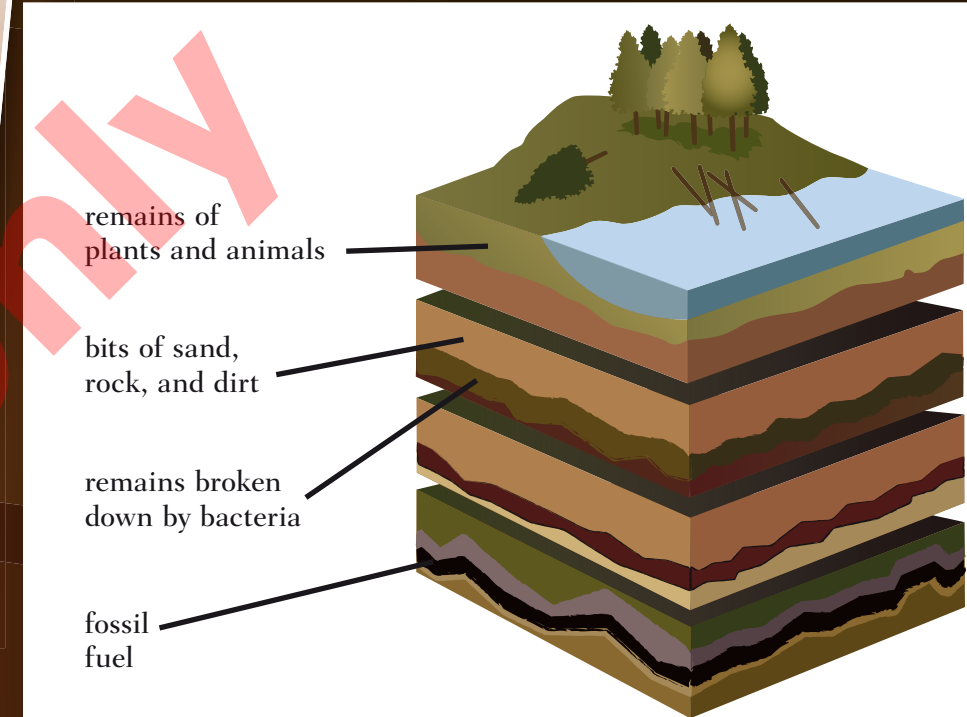


A drop of oil, the most important source of energy for the world



This aerial view shows holes that people have drilled in the ground to extract fossil fuels.

Fossil Fuel Formation



Coal is still a major part of the world's economy today.

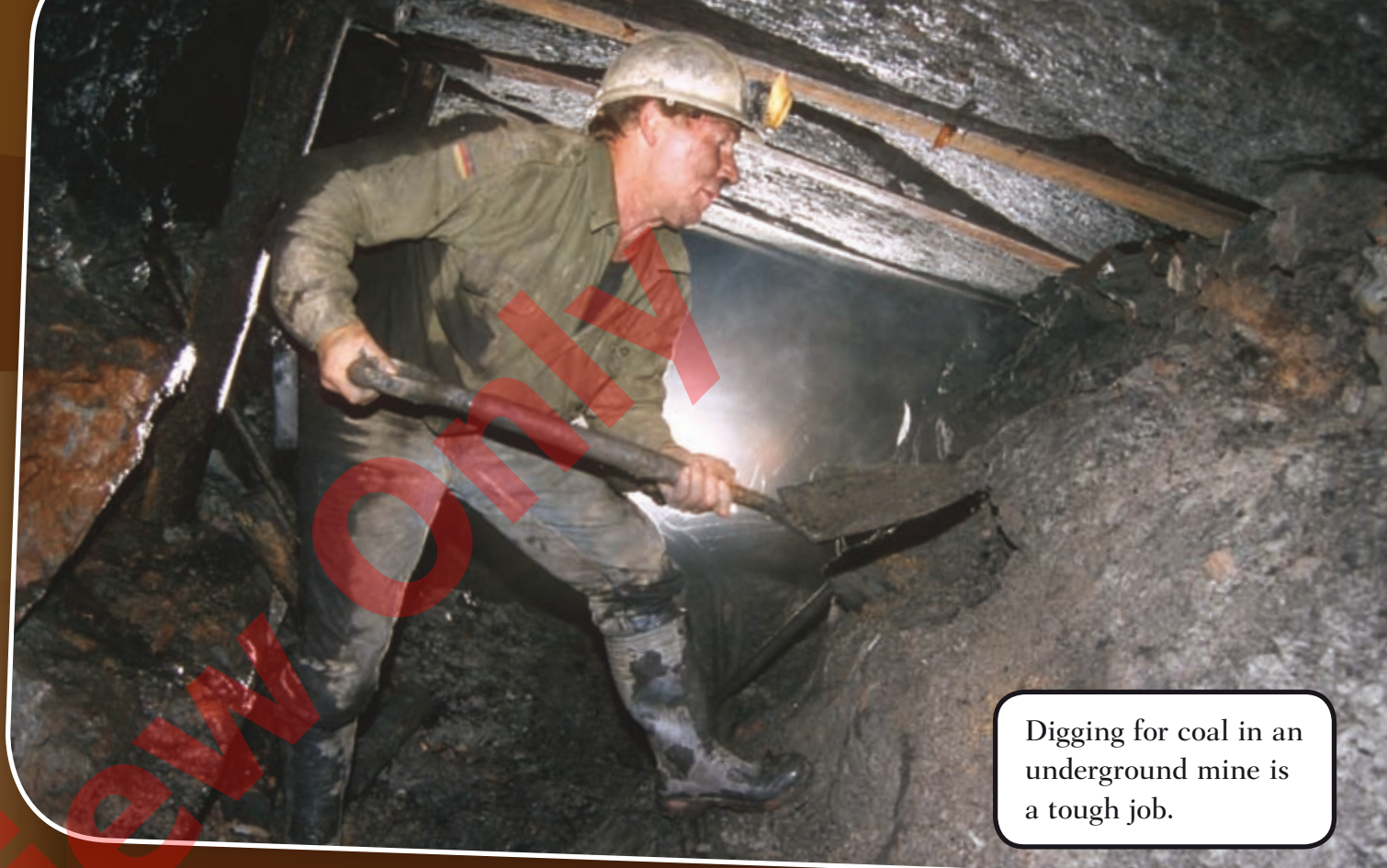
Coal

People get coal by digging it out of the ground in mines. Coal first formed about 300 to 360 million years ago. During this time, trees and large ferns grew in swamps. When these plants died, they piled up at the bottom of the swamps. Under the water, the lack of air kept them from decaying. Slowly, the plant remains turned into a spongy brown material called **peat**. Mud and sand then covered the peat. Under the ground, the peat was squashed and heated up. Over millions of years, this changed the peat into coal.

The coal formed in layers called **seams**. Sometimes the seams run deep under the ground. Sometimes they are close to the surface. This means people have to mine coal in different ways.

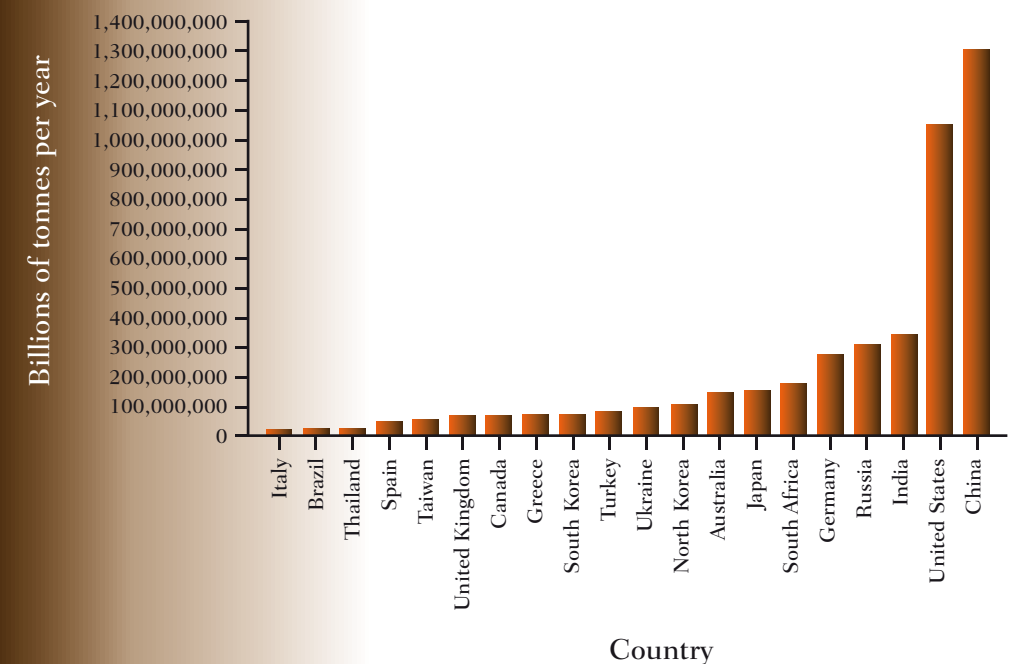
In strip mining, people dig up the coal from above. People use this kind of mining on the surface, when the coal seam is not deep down. Strip mining often covers large areas. It takes away all the soil and rock to reveal the coal. It also removes all the plants and animals. Surface mining can make floods worse and cause water pollution.

The second kind of mining is underground mining. It involves digging shafts and tunnels to get to the coal. Deep in the ground, miners or machines cut or blast the coal away. Then, they send the coal to the surface on big conveyor belts. Underground mining affects the land less than strip mining.



Digging for coal in an underground mine is a tough job.

Top 20 Coal-Consuming Countries

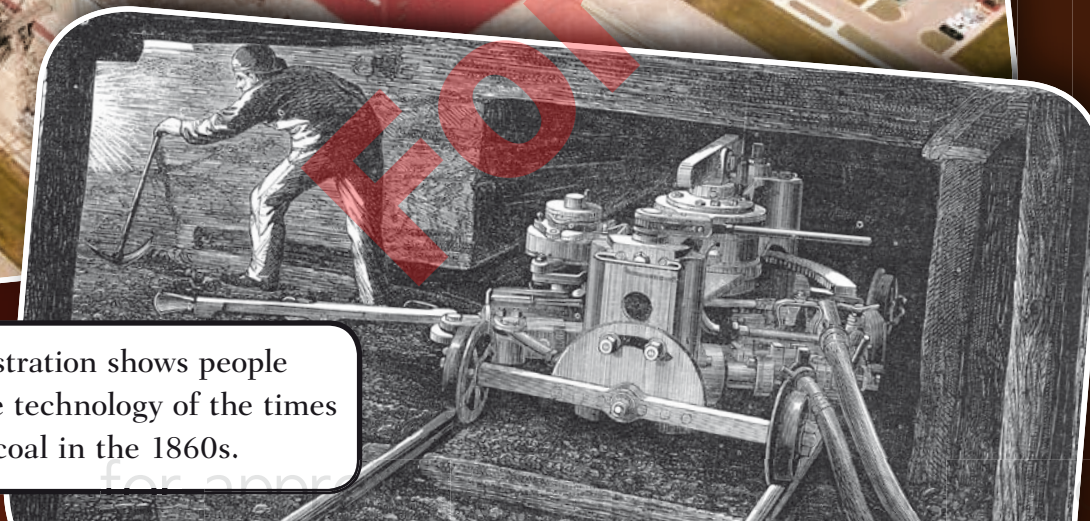


People have used coal as fuel for thousands of years. In China and Europe, people have used coal for over 3,000 years. Coal was the first fossil fuel people used on a large scale. The ancient Chinese were probably the first to have a coal industry. Europeans started coalmining in the 1200s. At first, people mined by hand. In the 1800s, people started using steam engines. They pumped water out of mines. Later, steam engines were used to lift coal out, too.

Today, coal fuels huge steam power plants such as this one in the United States.



This illustration shows people using the technology of the times to mine coal in the 1860s.



This illustration shows coalminers in China around 1840.



At first, people burned coal for heating and cooking. Today, one of the main uses of coal is to make electric power. Burning coal heats water into steam. The steam turns large wheels called turbines. This makes electric power.

There is more coal than any other kind of fossil fuel. Some scientists think that there is still enough coal to last for about 200 years.