

A Brief History of Oil

by Anne Rockwell

We go to the gas station and fill up the tanks of our cars. In big cars, small cars - all kinds of cars. Gasoline is what makes cars go.

What is gasoline anyway? Gasoline is a kind of fuel. When it is burned, it gives engines power. But carbon dioxide, other gases and small pieces of ash go into the atmosphere as the fuel burns. These are called emissions.

Carbon dioxide is a gas that traps heat around the earth. Carbon dioxide released into the atmosphere creates a **greenhouse effect**. Too much carbon dioxide in the atmosphere makes the earth warmer than it should be. We call this global warming. Every year more and more people drive cars and burn fuel. And every year the earth grows warmer.

Gasoline is made from **petroleum**, which is a **fossil fuel**. Fossils are what is left of plants and animals that lived

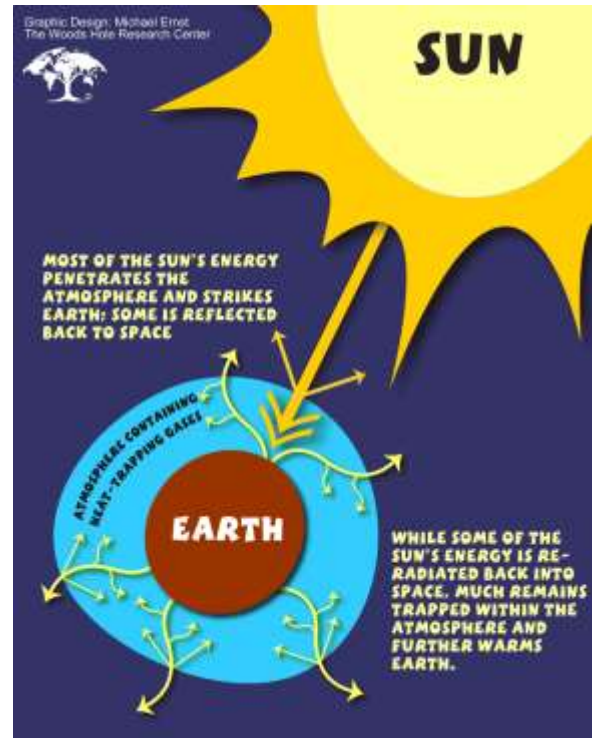


millions or billions of years ago. Maybe you have seen some in stone. You can't see the ones that make petroleum, because they are too small, but they are there. Long ago, tiny plants and animals lived in oceans that

covered much of the earth. When these plants and animals died, they drifted down to the bottom of the ocean. As millions of years passed, they became covered with sand. As more time passed, that sand turned to rock.

The decaying matter from those tiny plants and animals was trapped under the rock. This trapped decaying matter changed into petroleum. Some of the oceans dried up and left huge petroleum deposits deep underground. Some petroleum remained under the water of the ocean. These deposits under the land or sea are where we get petroleum, or crude oil, to make gasoline.

People have known about petroleum for thousands of years. There is more petroleum in the Middle East than anywhere else in the world. In the sandy deserts of those countries, people sometimes found that the sand was moist and oily. Petroleum had seeped up through the ground. They used that oily material to waterproof boats, to preserve mummies, or to rub on their dry skin. They never tried to dig up more because they did not need to. They did not use that much. Petroleum is still used today to make skin lotions.



The first oil wells were drilled in China during the 4th century. Wells dug with bamboo poles could reach depths of eight hundred feet.



Distilling

The distilling process was discovered in the eighth century. Distilling changes a chemical substance into something else. When a liquid chemical substance is heated until it boils, a new kind of liquid is given off. This is called a distillate.

In the 19th century, people discovered they could make kerosene out of distilled petroleum. Kerosene was a very useful distillate. People lit lamps with it and burned it in stoves to keep warm. But they still did not use much petroleum.

Everything changed when the automobile was invented in the late 19th century. Then petroleum became very useful. It could be distilled into gasoline, which makes cars go. It worked better in car engines than kerosene did. Gasoline was cheap and there seemed to be plenty of the crude oil needed to make it if people dug in the right places.



- They are drilling in the desert. There used to be an ocean there.

People started digging and digging deeper and deeper to find deposits of petroleum. They learned how to put floating oil rigs in the ocean to drill holes and pump it from under the sea floor.



This is on the water. It is as big as a city block.

As people dug and pumped more and more crude oil, they made more and more gasoline in oil refineries. Refineries are places where crude oil is distilled into gasoline. Gasoline became plentiful. There were also many different kinds of gas powered vehicles developed, like tractors, lawn mowers, motorboats, trucks, etc.



Another kind of fossil fuel is coal. Coal is not a liquid fuel like petroleum, but solid like a rock. It is not made from microscopic plants and animals. Instead it is made from plants that once grew in huge swamps that covered the earth. We dig coal out of the earth from coal mines and burn it to heat homes and make machines work. Some of these machines make the electricity that we use; some help people make things in factories.

Burning coal also puts a lot of carbon dioxide and other emissions into the atmosphere.

There is a bad thing about this. Fossil fuels such as gasoline and coal emit more carbon dioxide than any other kind of fuel. They make so much carbon dioxide because they are



made of carbon. Carbon is a part of every living thing. We are made of carbon. So are the plants that grow and the birds and insects that live. When you burn carbon, it burns long and hot, but because it is made of living things, or organic matter, not all of it burns. Partially burned carbon pollutes the air we breathe. It makes it dirty. And every year the people of the world burn more and more fossil fuel.

More and more carbon dioxide traps more and more heat in the earth's atmosphere. Scientists who study the earth and the environment now think that the warmer air makes glaciers and the polar ice caps melt. What happens to a glass of lemonade when the ice cubes melt? If glaciers and the polar ice caps melt, then sea levels will rise. This will call serious problems, including flooding.



Many animals are endangered by climate change. When the climate changes, many plants and animals cannot survive in the place where they have always lived. The world is changing and the changes aren't good.

If people keep using these fuels, a lot more damage will be done to all living things on the earth. Nothing does more damage to the environment than burning fossil fuels. We need to find other ways to get the fuel we need. We have to find ways to use less too. And we need to find these things soon.

There is another problem with gasoline. One day there will not be any more petroleum. It will be all used up. When it is gone, we won't be able to make any more because it was made by nature over billions of years ago. It took a long time for the prehistoric plants and animals that died to turn into coal and petroleum. As there is less and less oil, the price of oil will go up and up. And then there will be no more.

Luckily, there are other ways to make the energy we need – if we are smart enough to think of them. We also have to be willing to change our own habits.



Solar panels turn sunlight into electricity that we can use

We can harness and store power from the sun to make machines go. That is called solar power. We can use windmills to harness and store power from the wind. This is called wind power. We can capture and store energy from waves and the tides in the ocean. We can make other kinds of automobile fuels from corn, wheat, soybeans, sugarcane or even water. These fuels do not put as much carbon dioxide into the atmosphere as gasoline does.



When the wind turns a windmill, it can be used to make energy

It is important that we all figure out a way to not depend on fossil fuels. This planet belongs to all of us and each of us has a responsibility to take care of it for the next generation.

Some Interesting Information about Gasoline

- 1) Across the earth, about 83 million barrels of crude oil are produced a day and about 83 million barrels of oil are consumed a day.
- 2) The United States alone consumes about 400 million gallons of gasoline a day.
- 3) The United States consumes 146 billion gallons of gasoline in a year. That is more than any other country.
- 4) The United States releases about 2 billion pounds of carbon dioxide into the atmosphere every day.
- 5) It is predicted that there are only about 2 trillion barrels of oil left in the world.

Top 5 Oil Exporters

(where oil comes from)

- Saudi Arabia
- Russia
- Norway
- Iran
- United Arab Emirates

Top 5 Oil Importers

(who buys most of the oil)

- United States
- Japan
- China
- Germany
- South Korea

Top 5 Oil Consumers

(who uses the most oil)

- United States
- China
- Japan
- Russia
- Germany

