

# Energy Internet Scavenger Hunt



Use the internet to search for the answers to these questions on [www.energy4me.org](http://www.energy4me.org). You may also find answers in library books, such as "Oil and Natural Gas".

## TEACHER ANSWERS

### 1) What are fossil fuels?

Oil, natural gas, and coal are called "fossil fuels" because they have been formed from the organic remains of prehistoric plants and animals.

### 2) What are renewable energy sources?

Renewable energy comes from a source that's constantly renewed, such as the sun and wind, and can be replenished naturally in a short period of time. Because of this we do not have to worry about them running out. Additional examples include ethanol, geothermal, biomass, and hydropower.

### 3) What percent of the world's electricity is supplied by coal?

Globally, coal supplies nearly 40 percent of the world's electricity each year.

### 4) What types of gases make up natural gas?

Natural gas is a combustible mixture of hydrocarbon gases. It is formed primarily of methane, but can also include ethane, propane, butane and pentane.

### 5) What materials are used on solar panels to allow them to produce electricity?

Solar cells are made using silicon, the same thing that makes up sand. Even though silicon is found almost everywhere, making a solar panel is a difficult and expensive process. The silicon is heated and melted at super high temperatures, and then molded into thin wafers. When sunlight strikes the solar cell, electrons are loosened and move toward a treated front surface, making an imbalance between the front and back. Electricity occurs when a connector, such as a wire, joins the negative and positive sides together.

### 6) What is nuclear energy?

Nuclear energy is energy in the nucleus, or core, of an atom. Atoms are tiny particles that make up every object in the universe. Bonds that hold atoms together contain large amounts of energy that is released in the form of heat in two ways: nuclear fusion and nuclear fission.

### 7) Who is considered the entrepreneur of the oil industry?

Edwin L. Drake struck oil in the first commercially successful well drilled specifically for oil and launched the modern petroleum industry in the United States. He is considered the petroleum entrepreneur of the oil industry.

### 8) Do electronics use energy when they're off?

Yes! This form of energy use is called, "standby power," and it actually uses more energy than many think. It has been found that some devices can use as much as 20 watts of power when they're off, but not unplugged.

### 9) By what percentage is the use of wind power growing worldwide each year?

Wind power has been growing at an average rate of 25 percent per year, making wind the fastest growing source of energy in the world since 1990.

### 10) How did oil and natural gas form?

Petroleum and natural gas are formed from animals and plants that lived millions of years ago (fossils) when heat/pressure turned decayed matter into crude oil.

