

FOSSIL FUELS

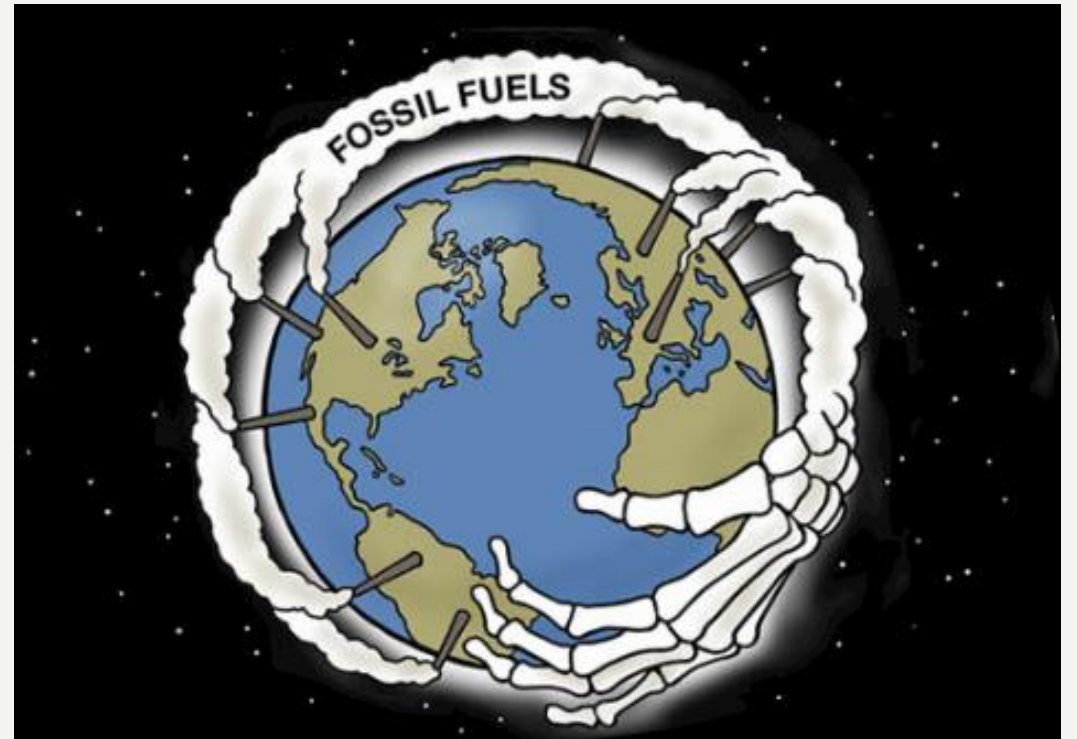
WHAT ARE FOSSIL FUELS?

- Fossil Fuels are the energy rich substances formed from the remains of once-living organisms.
- The three major fossil fuels are coal, oil and natural gas.
- Fossil fuels are made of hydrocarbons, they contain carbon and hydrogen's.



WHAT ARE FOSSIL FUELS?

- Fossil fuel takes hundreds of millions of years to form.
- Fossil fuels therefore are considered a nonrenewable resource.
- New resources of energy are needed to replace the decreasing fossil fuel reserves.

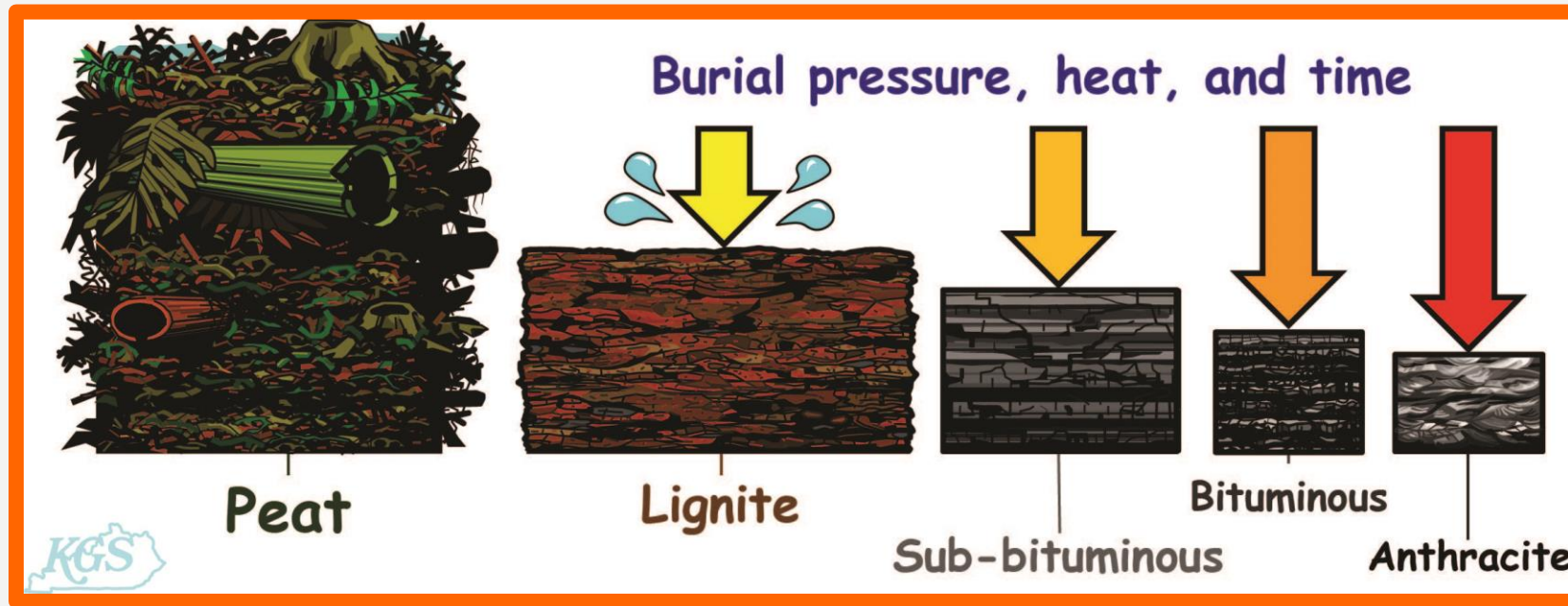


WHAT IS COAL?

- Organic sedimentary rock formed from plant remains deposited in swamps and marshes.
- Burning coal is one of the largest sources of CO₂



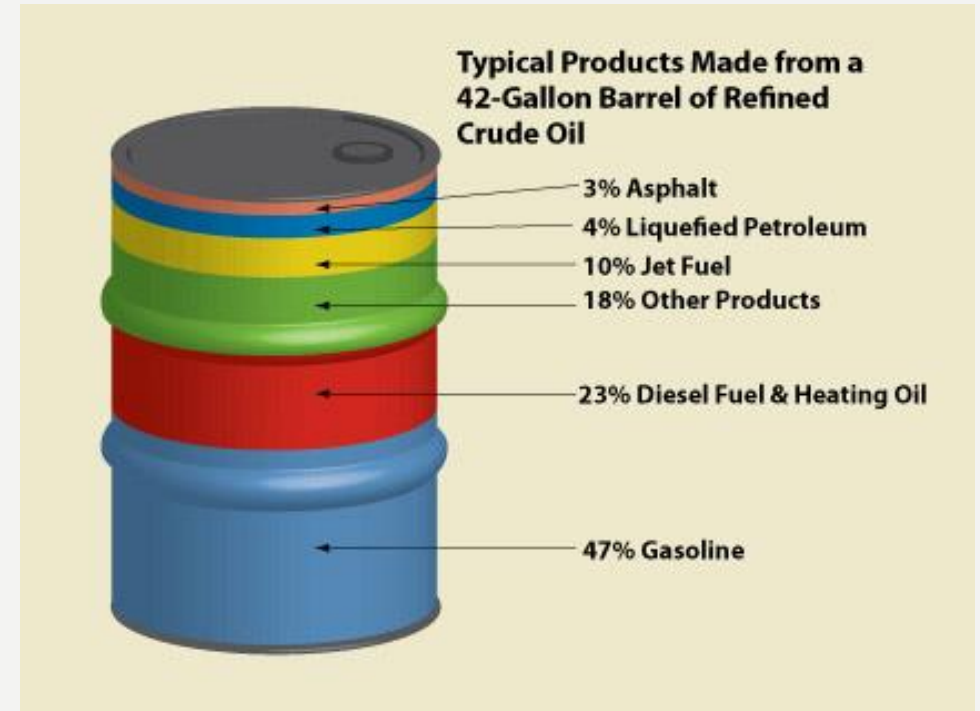
HOW IS COAL FORMED?



- Dead plants get buried and compacted to create peat.
- Plant material breaks down releasing natural gas.
- Peat is further compacted to create lignite (brown coal)
- Lignite is compacted to create bituminous coal (soft coal)
- Finally, bituminous coal is compacted to create anthracite (hard coal)

WHAT IS OIL?

- Oil is a thick, liquid fossil fuel, it is formed from remains of small animals, algae and protists.
- Petroleum is another name for oil.
- The United States consumes about one third of all the oil produced in the world.



HOW IS OIL FORMED?



- Large numbers of aquatic life died and settled in the bottom of the ocean.
- Their decomposition depleted the small amount of O_2 that was present.
- The oxygen-deficient environment prevented further decomposition and the dead remains were covered and buried deeper into the sediments.
- The heat and pressure aided in the conversion of these remains to hydrocarbons, known as oil.

WHAT IS NATURAL GAS?

- The third major fossil fuel is natural gas.
- It is a mixture of methane and other gases.
- Natural gas can be made from plants or animals.
- It provides a lot of energy but is highly flammable



HOW IS NATURAL GAS FORMED?

- Formation of natural gas starts the same as oil.
- Marine life gets buried deeper and deeper. Pressure builds up and creates heat.
- If heat is greater than 300 degrees C, the oil is further broken down to form natural gas

