# Coal Power



## Coal Formation

- Forms from dead plants that settled at the bottom of ancient swamps
- Dead plants bury organic material without oxygen and the organic material is fossilized or preserved
- Sand and clay that settle in layers squeezes out water and other substances.
- The pressure adds on for millions of years, forming the coal that we are familiar with today

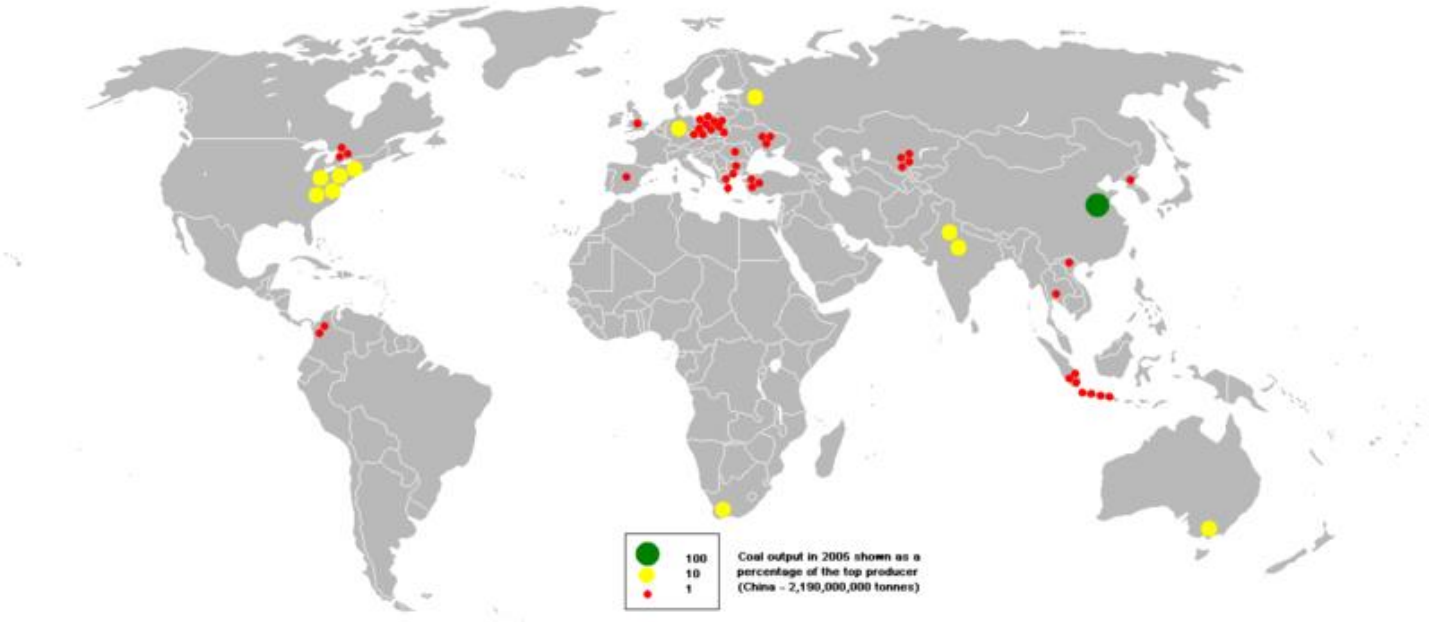
Study Tip

Think about how other natural resources are processed. Similar to wind and hydroelectric power, electricity from coal power utilizes turbine movements.

## Coal Use

Coal is the largest source of energy for electricity around the world

1. to turn coal into electricity the rock is crushed into powder which is then burned in a furnace that has a boiler
2. Heat from the coals causes water to boil and create steam
3. Steam from boiling water powers turbines
4. Turbine movement creates electricity




*This bubble map shows the global distribution of coal output in 2005 as a percentage of the top producer, China.*

## Consequences

- Acquiring coal requires mining, which has drastic impacts on the health of miners and the surrounding environment
- Mining is very dangerous- there can be explosions, and dangerous minerals can also be released
- Coal mining exposes minerals from underground to air and water on the surface and forms sulfuric acid which is unhealthy for aquatic and terrestrial ecosystems

## Concept Check

- Describe how coal is formed.
- Why is coal important to sustain human life?
- How are humans able to acquire coal?