

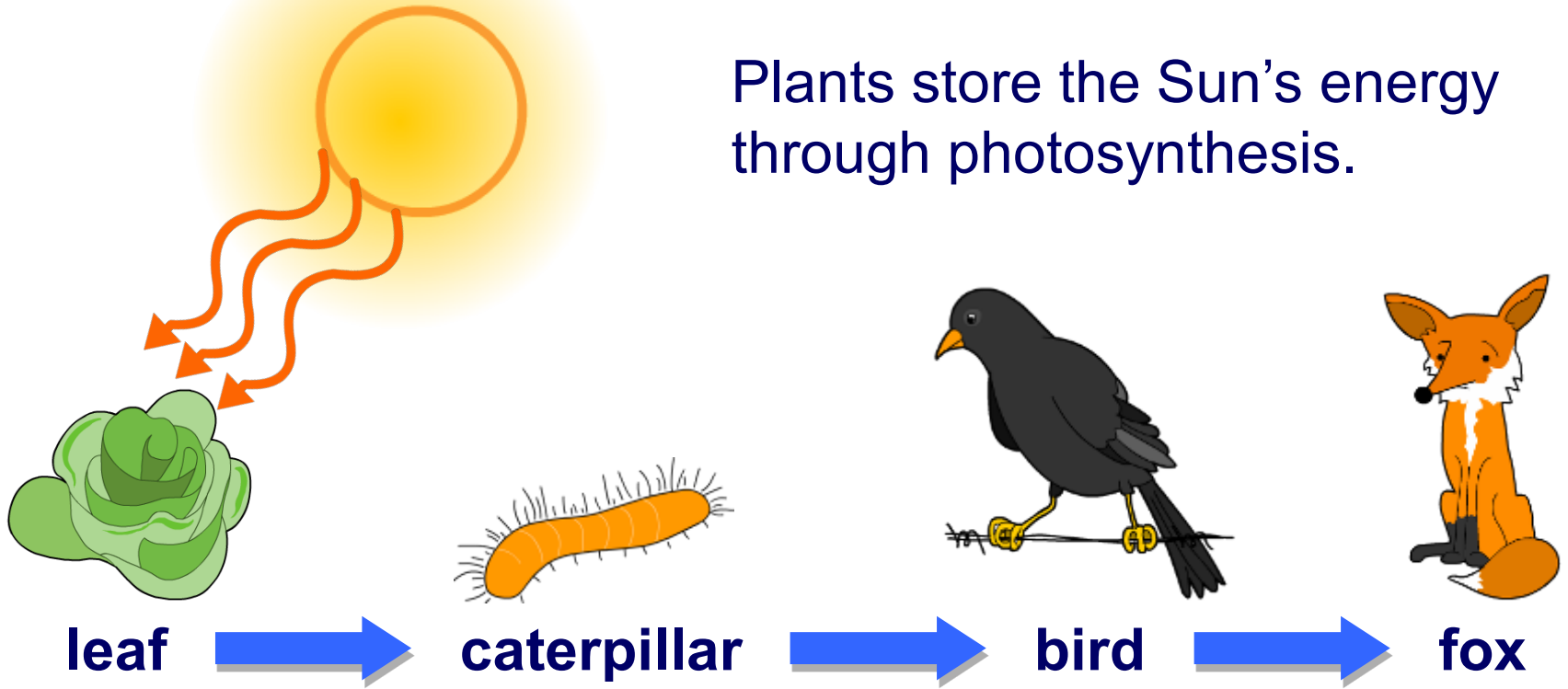
Nonrenewable Energy Resources



Energy and the Sun

The Sun is the original source of most energy resources.

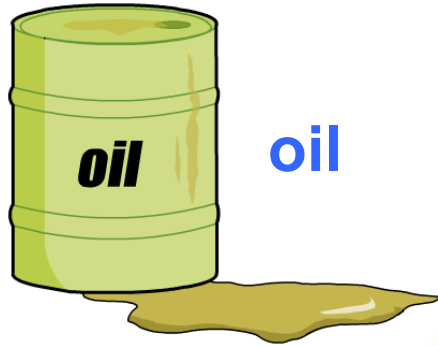
Plants store the Sun's energy through photosynthesis.



Plants are eaten by animals, which are then eaten by other animals, so the energy is passed on.

Energy resources from the Sun

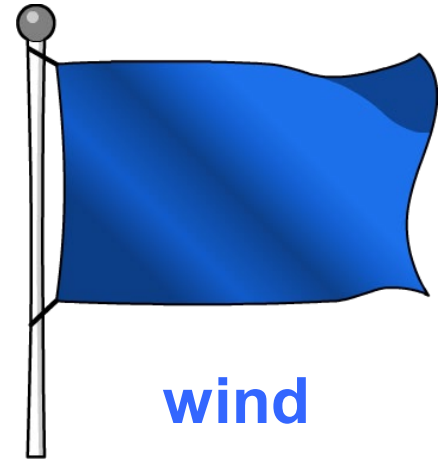
The energy in all these energy resources originated from the Sun.



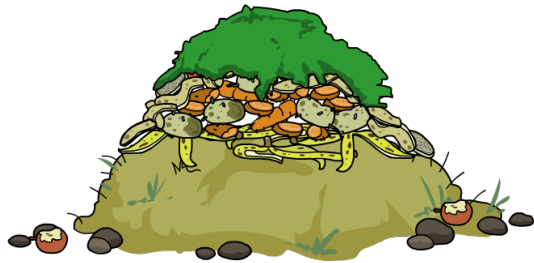
oil



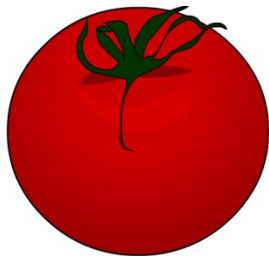
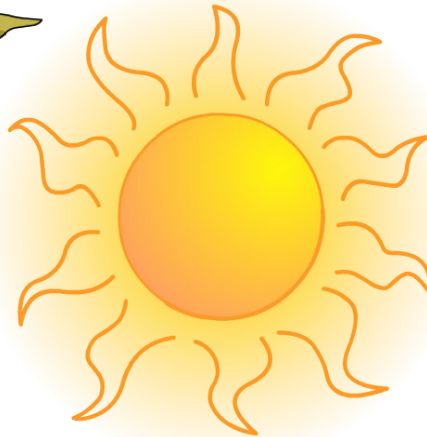
coal



wind



biomass



food

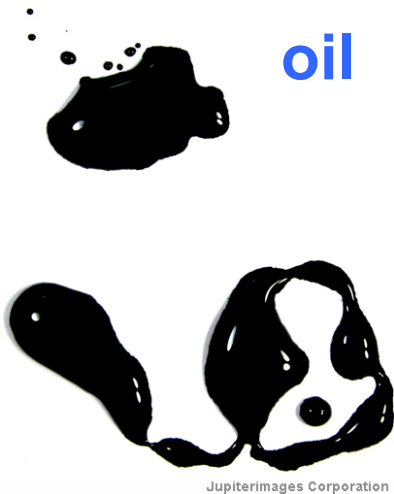


natural gas



Nonrenewable energy resources

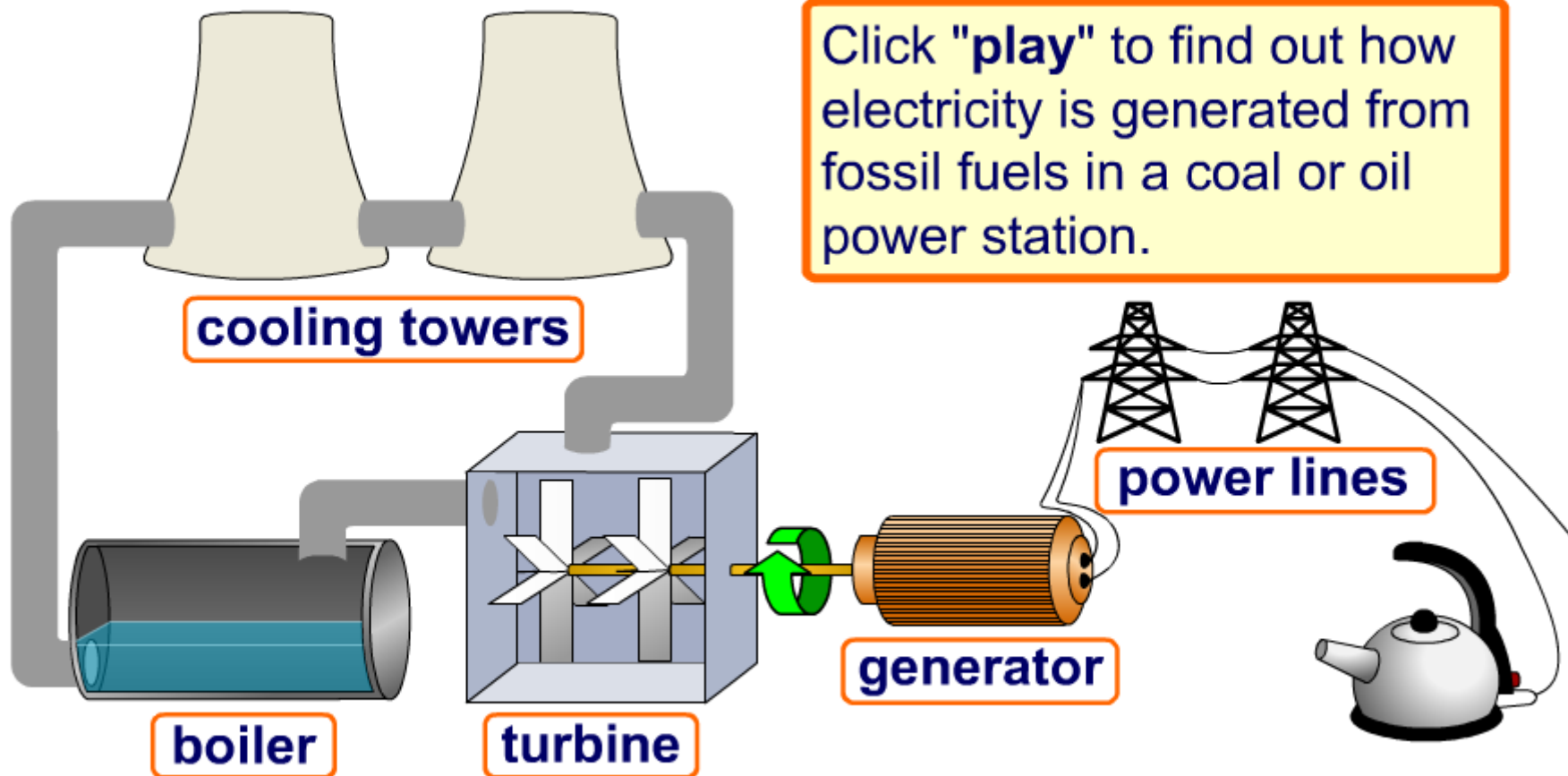
Oil, coal and natural gas are examples of **fossil fuels**. They were formed from biological deposits over the course of millions of years.



The amount of fossil fuel on Earth is limited. Once fossil fuels are used they cannot be replaced and will eventually run out, so they are called **nonrenewable**.



How does a coal or oil power station work?

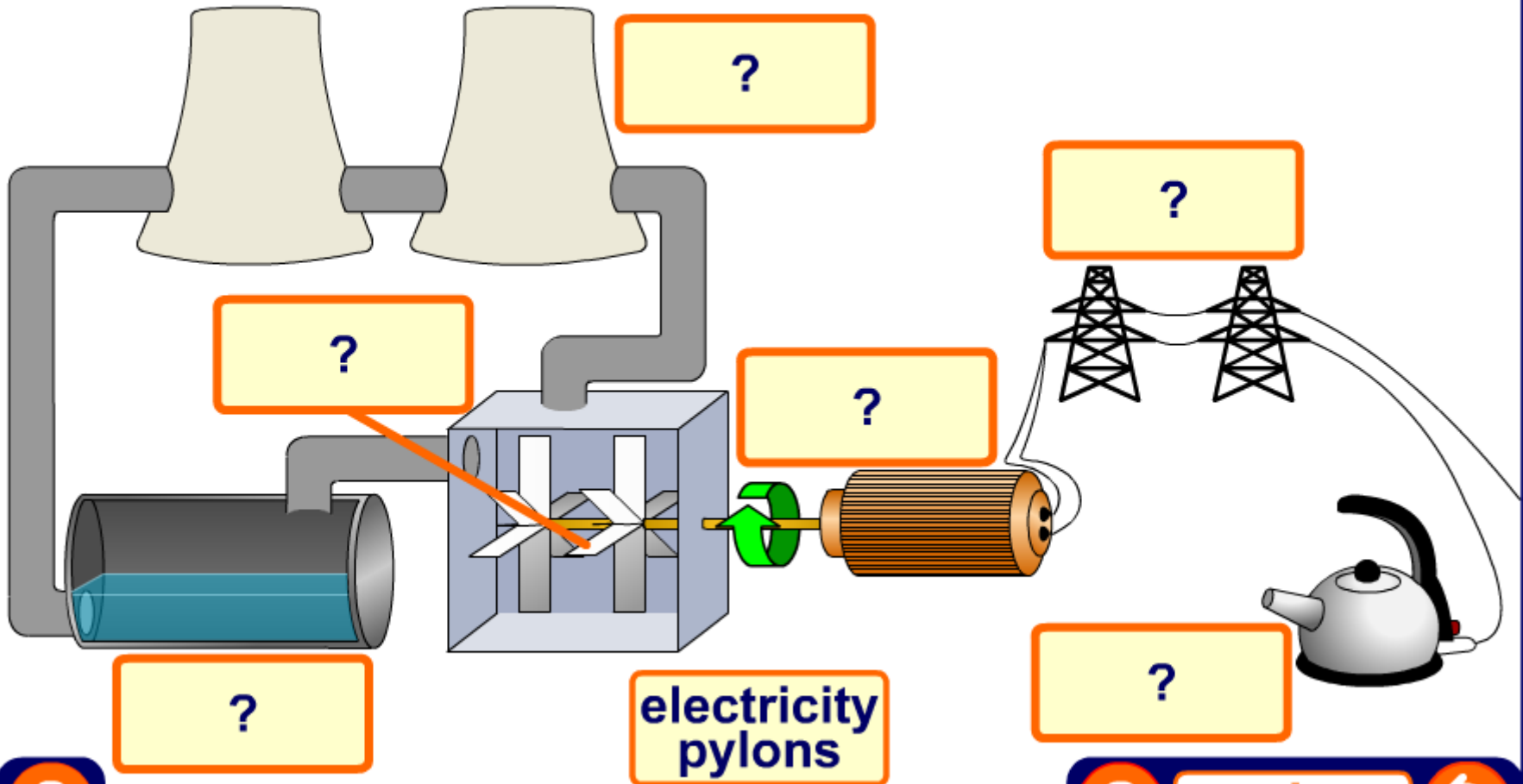


Click "play" to find out how electricity is generated from fossil fuels in a coal or oil power station.



Labeling parts of a power station

What equipment is involved in generating electricity?



solve



What is the order of events for generating electricity in a power station?

- 1 The boiling water produces superheated steam.
- 2 The superheated steam turns a turbine.
- 3 Fuel is burned to boil water at a high pressure.
- 4 The rotating magnet generates electricity.
- 5 The turbine rotates a magnet in the generator.



solve





Using fossil fuels to produce electricity has consequences for the environment.

Burning some fossil fuels creates chemicals like sulfur dioxide, which causes **acid rain**.



Burning fossil fuels also produces **carbon dioxide**, which is released into the atmosphere.

Carbon dioxide is a **greenhouse gas**.

