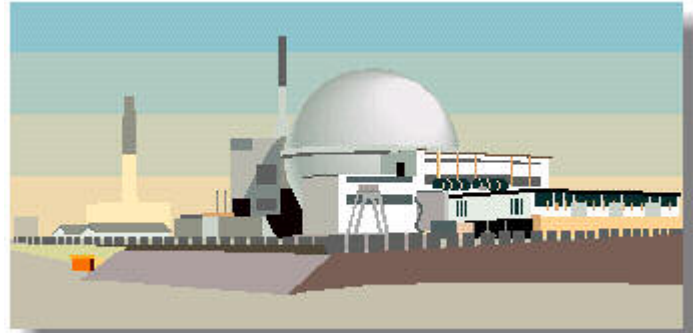


Nuclear Power Summary

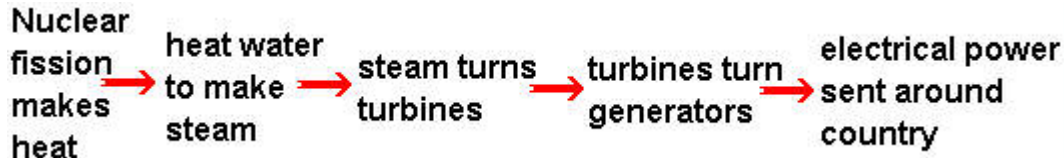
Nuclear power is generated using Uranium, which is a metal mined in various parts of the world.

The first large-scale nuclear power station opened at Calder Hall in Cumbria, England, in 1956.

Some military ships and submarines have nuclear power plants for engines.



How it Works



Nuclear power stations work in pretty much the same way as fossil fuel-burning stations, except that a "chain reaction" inside a nuclear reactor makes the heat instead.

The reactor uses Uranium rods as fuel, and the heat is generated by nuclear fission. Neutrons smash into the nucleus of the uranium atoms, which split roughly in half and release energy in the form of heat.

Carbon dioxide gas is pumped through the reactor to take the heat away, and the hot gas then heats water to make steam.

The steam drives turbines which drive generators.

Modern nuclear power stations use the same type of turbines and generators as conventional power stations.

<u>Advantages</u>	<u>Disadvantages</u>
Nuclear power costs about the same as coal, so it's not expensive to make.	Although not much waste is produced, it is very, very dangerous.
Does not produce smoke or carbon dioxide, so it does not contribute to the greenhouse effect.	It must be sealed up and buried for many years to allow the radioactivity to die away.
Produces huge amounts of energy from small amounts of fuel.	Nuclear power is reliable, but a lot of money has to be spent on safety - if it does go wrong, a nuclear accident can be a major disaster. people are increasingly concerned about this - in the 1990's nuclear power was the fastest-growing source of power in much of the world. Now, in 2005 it's the second slowest-growing.
Produces small amounts of waste.	
Nuclear power is reliable.	

Use these words to answer the questions: Nuclear burn chain dangerous energy no reactor robot rods shielding turbines uranium waste water

1. Is nuclear power renewable? [yes/no] .
2. Nuclear power stations use _____ as fuel. They need very little, compared to a "fossil" power station because there is much more _____ in nuclear fuel.
3. The _____ reaction inside the _____ creates heat, which turns _____ into steam to drive _____, which drive generators to make electricity.
4. The fuel _____ are safe to handle before they go into the reactor, it's only when they come out that you need to handle them with _____ arms and heavy _____.
5. _____ power stations do not create atmospheric pollution, because they do not _____ anything. However, the small amount of _____ that they do produce is very _____.