Energy Resources http://www.darvill.clara.net/altenerg/

Energy Source	How it works?	Advantages	Disadvantages	Renewable or Non-renewable
Fossil Fuels 1. **Coal** 2. **Oil/ Petroleum** 3. **Natural Gas**	The coal is crushed and burnt, or the oil or gas are burnt directly to produce heat. The heat heats water that produces steam that turns a turbine that powers a generator that makes electricity.	Cheap Easy to transport	Produces lots of pollution Will eventually run out	Non-renewable
Nuclear Power (Uranium)	Uranium atoms are split in a nuclear reactor producing heat. The heat heats water that produces steam that turns a turbine that powers a generator that makes electricity.	Reliable Inexpensive Produces lots of energy	Waste is very, very dangerous Costs a lot for safety	Non-renewable
Solar Power	Photo voltaic cells covert light energy from the sun into electricity.	Solar energy is free No pollution Handy for low-power uses	Doesn't work at night Expensive to build power stations	Renewable - Inexhaustible
Wind Power	Wind is created by the sun heating the air in our atmosphere. The wind blows propellers that turn generators that produce electricity.	Wind is free Produces no pollution or wastes	Wind is not predictable and sometimes there is no wind Noisy and can kill birds	Renewable
Tidal Power	A huge dam called a barrage is built across a river estuary. When the tides go in and out, the motion of the water turns the turbine that turns the generator that produces electricity.	Tidal power is free No wastes or pollution	Expensive to build dam Affects a large environment and ecosystems	Renewable
Hydro-electric Power	Water from a lake or river is trapped behind a dam. The water is allowed to flow through tunnels to turn the turbines that drive the generators that produce electricity.	No waste or pollution Water can be stored for use when needed	Dams are expensive to build Negative effects to the ecosystems	Renewable
Wave Power	At a wave power station, the waves arriving cause the water to rise and fall in a chamber. This forces air in and out of the chamber at the top. A turbine in the hole turns a generator that produces electricity.	Waves are free No wastes or pollution Can produce lots of energy	Waves unpredictable Can be noisy Must withstand rough weather	Renewable
Geothermal Power	Hot rock near volcanoes heat water underground that produces steam that turns the turbine driving the generator to produce electricity.	No pollution Power stations are small and don't impact the environment much	Hazardous gases and minerals may come up from the ground Not many places for power stations	Renewable
Biomass	Wood, sugar cane, plant and animal waste, sea weed, or cornstalks can be burned to provide heat. The heat heats water that makes steam that turns a turbine driving a generator that produces electricity.	Cheap Less demand on Earth's resources	Creates pollution Not always available	Renewable
Hydrogen	Hydrogen is separated from water, biomass, or natural gas and can be used in fuel cells to power vehicles. Not used in power plants yet.	Clean, no pollution Hydrogen stores energy	Expensive Still being developed	Renewable