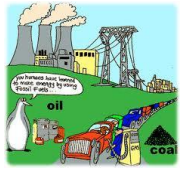
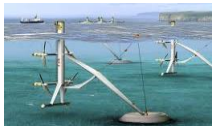
Types of energy

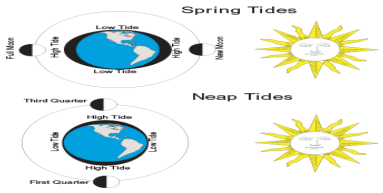
Found in Lithosphere

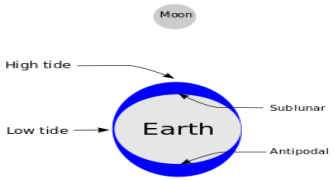
	Explanation	Positive and Negative
Fossil fuels Non-renewable 	- result from the transformation of organic matter to inorganic matter - humans mine fossil fuels and burn them - includes coal, natural gas and oil which are compressed over millions of years and formed fossil fuels	-when fossil fuels are burned they produce CO_2 and CH_4 which are main contributors to global warming - also produce SO_2 and NO_x. - also contributes to acid rain
Uranium (Nuclear) Non renewable 	·natural occurring radioactive element in the earth's crust. -splitting the nucleus allows a huge output of energy -uranium is mined	-waste material and equipment remains radioactive for hundreds of years. It is buried underground. -risk of accidents is a constant concern (radioactivity) -one handful provides as much energy as 70 tonnes of coal - no atmospheric pollutants are released
Geothermal Renewable 	- from the internal heat of the Earth where hot magma lies - a fluid is circulated deep underground, heated, and then returned to surface	- very expensive and difficult to install - no green gases emitted - the hot ground water used in the power plants contains sulfur, mercury, hydrogen sulfide and ammonia which can be released in the water supply.

Found in hydrosphere- All renewable

	Explanation	Positives and negatives
Hydroelectric 	- derived from movement of falling water to spin turbines which are located in a dam - main source of energy in Quebec	- no greenhouse gases emitted - severe damage to ecosystems and affect many animal and plant species
Wave and ocean current 	-energy obtained from the flow of ocean tides - ocean currents spin underwater turbines , which are similar to wind turbines	- no pollutants - not very popular because very expensive and not always reliable - can affect ecosystem organisms
Tidal Renewable 	-Electricity can be generated from tides when water from a high tide is collected (sometimes using a dam) and then falls through turbines converting mechanical energy into electrical energy.	- a tidal range of 5 cm is necessary to use this technology - no pollutants - dams used can affect fish migrations and water flow levels

Tides: levels changing due to its attraction to the sun and moon and the earth's rotation
- there are 2 high tides and 2 low tides per day
- when closest or furthest from the moon = high tide
- when the earth, moon and sun are aligned Spring tides are created which are the highest tides.





Found in atmosphere + other

	Explanation	Positives and negatives
Wind Renewable	- energy that can be drawn from the wind - as blades turn, they activate an electric generator	- cannot be stored so needs to be used with another source of energy - no pollutants, but does create sound pollution - disturbs ecosystem and can kill birds - very expensive
Solar (other) Renewable	- energy that comes from the sun in the form of radiation - solar energy causes electrons to flow creating current electricity	- no pollutants - very expensive - must rely on other forms of energy also