

Advantages and disadvantages of different fuels

Power stations can run on different types of fuels.

They can run on fossil fuels such as coal, oil or gas. Or they can run on nuclear energy.

Read through the statements and decide whether they are advantages or disadvantages to using that type of fuel. **Type A for advantage and D for disadvantage.**

Type of fuel	Statement	Advantage or disadvantage
Coal	Out of the three fossil fuels, a coal power station takes the longest start up time (time it takes to produce electricity after turning it on).	
Coal	Coal is a relatively inexpensive energy source.	
Coal	Out of all the fossil fuels, burning coal causes the most greenhouse gasses and pollution to be released.	
Coal	Reserves of coal will last longer than the other fossil fuels.	
Coal	Coal can be found in lots of places in the world and there is still plenty in the UK.	
Oil	It is easier to get out of the ground than coal.	
Oil	An oil power station has the second fastest start up time (time it takes to produce electricity after turning it on).	
Gas	A gas power station has the shortest start up time (time it takes to produce electricity after turning it on). Some can start producing electricity as soon as they are turned on.	
Gas	Gas is the easiest fossil fuel to transport as it can be moved through pipelines.	

Fossil fuels	Some of the carbon dioxide from burning the fuel can be captured and stored underground, stopping it from contributing to global warming.	
Fossil fuels	Capturing the carbon dioxide released uses large amounts of energy making the power station less efficient and more expensive to run.	
Fossil fuels	They will eventually run out.	
Fossil fuels	The price of fossil fuel will increase in the future because supplies are running out and lots of people will want them.	
Nuclear	Does not release greenhouse gases or any air pollution.	
Nuclear	A large amount of energy is generated from a very small amount of fuel.	
Nuclear	Expensive to build	
Nuclear	Uses large amounts of water for cooling so needs to be built next to the sea.	
Nuclear	Produces radioactive waste that needs to be stored safely for very long periods of time.	
Nuclear	Has the longest start up time (longest time to start generating electricity when turned on) out of all the fuel powered power stations.	
Nuclear	Very expensive to shut down.	
Nuclear	Very safe, the risk of an accident is very low.	
Nuclear	If there ever was an accident, it could be very serious and cause large areas of the country to be affected.	