



Section 1: Key Vocabulary	
Key Word	Definition
Chemical Reaction	When atoms are rearranged to make something new
Physical Change	Nothing new is made, it may include a change of state
Reversible Reaction	A reaction that can go both forwards and backwards
Reactants	The substances that react. Always on the left of the arrow in an equation
Products	The substances that are made. Always on the right of the arrow in an equation
Combustion	The burning of a substance
Fuel	A material that is burnt to produce heat or power
Thermal Decomposition	When a substance is broken down on heating
Exothermic	When energy is released to the surroundings
Endothermic	When energy is taken in from the surroundings
Fossil Fuels	Fuels made from fossils of dead plants and animals
Finite Resources	There is a limited supply of and will eventually run out
Global Warming	Global warming is the rise in temperature of the Earth's atmosphere.

Section 2: Quick Questions	
What is an example of a physical change?	Ice melting is a physical change, as is sugar dissolving in water
What is a word equation?	A word equation shows the reactants and the products for a reaction e.g. methane + oxygen → carbon dioxide + water
What are the products of combustion?	Carbon dioxide and water are the products
How do we test for carbon dioxide?	By bubbling it through lime water, which it turns cloudy
What is the Law of Conservation of Mass?	It states that the total mass of the products is equal to the total mass of the reactants
What are examples of endothermic and exothermic reactions?	Combustion is an example of exothermic reaction. Citric acid reacting with sodium hydrogen carbonate is an endothermic reaction
What are the three fossil fuels?	Coal, crude oil and natural gas
What causes Global Warming?	Greenhouse gases, such as CO ₂ , trap more of the Sun's heat inside the atmosphere, increasing the average temperature.
What causes acid rain?	Sulfur dioxide, released from burning fossil fuels, reacts with rain water.

Section 3: Helpful Diagrams

Labels: thermometer, conical flask, represents transfer of energy, mixture of citric acid and sodium hydrogen carbonate

Labels: metal carbonate, Bunsen burner, heat-proof mat, clamp stand, delivery tube, test-tube holder, lime water

Labels: funnel, tea light candle, cobalt chloride paper, ice and water bath, lime water, to pump

Section 4: Video Links