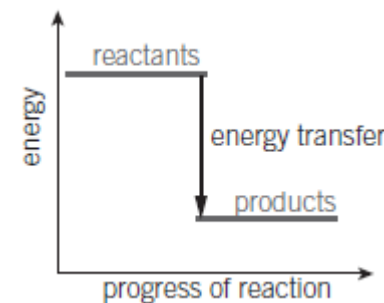


Atoms in Chemical Reactions			Thermal Decomposition			Combustion					
1	Chemical Reactions	A change in which atoms are rearranged to make new substances.	1	Definition	Reaction where the reactants are broken down using heat.	1	Definition	The burning of fuel in oxygen.			
2	Word Equations	A and B react together to produce C. A and B are the reactants and C is the product: A + B → C	2	General Equation	Metal carbonate → metal oxide + carbon dioxide.	2	General Equation	Fuel + Oxygen → Carbon Dioxide + Water.			
3	Mass is Conserved	The amount of each atom stays the same but they are rearranged to form a new product.	3	Test for Carbon Dioxide	Bubble the gas through limewater; carbon dioxide turns limewater cloudy.	3	Energy Transfer	Chemical energy is transferred to the surroundings as heat and light.			
Conservation of Mass			Endothermic & Exothermic Reactions			Energy Level Diagrams			Bond Energies		
						1	Energy Level Diagrams	Show the values of energy between the reactants and products in a reaction	1	Bond Breaking	Energy must be put in to break chemical bonds; its endothermic.
1	Law of Mass Conservation	The total mass of the reactants will be equal to the total mass of the products.	1	Exothermic Reactions	Reactions that transfer energy to the surroundings, this increases the temperature of the surroundings.	2 Exothermic Energy Level Diagram: The energy is greater in the reactants than the products. 	2	Bond Making	Energy is released when bonds form; its exothermic.		
2	Balanced Symbol Equations	<ul style="list-style-type: none"> Shows the amounts of all the individual atoms in a reaction. They show a) formulae of reactants and products b) how the atoms are arranged c) relative amounts of reactants and products. 	2	Examples of Exothermic Reactions	Combustion, freezing and condensing.		3	Endothermic Reactions	The energy needed to break the bonds is more than the energy released when making the bonds.		
			3	Endothermic Reactions	Reactions that transfer energy from the surroundings to the reactants, this decreases the temperature of the surroundings.		4	Exothermic Reactions	The energy needed to break the bonds is less than the energy given out when making the bonds.		
			4	Examples of Endothermic Reactions	Thermal decomposition, melting and boiling.	3	Endothermic Energy Level Diagram:	Key Vocabulary			
								1	Fuel	A substance which stores energy in a chemical store.	
								2	Decomposition	Breaking down.	
								3	Thermal Energy	Heat.	
								4	Bond Energy	The amount of energy required to break a bond,	

