

Combined Science: Higher Revision list

Chemistry Paper 1

Topic	Tick
Chapter 2:	
Particle diagrams with descriptions https://www.youtube.com/watch?v=OTksau0_VoI	
Predict the state of substances at different temperatures given data https://www.youtube.com/watch?v=h7ErVAZbeu0	
Know the state symbols https://www.youtube.com/watch?v=h7ErVAZbeu0	
Describe the properties of ionic compounds https://www.youtube.com/watch?v=AGD5pIXXt4o	
Describe the properties of simple covalent molecules https://www.youtube.com/watch?v=DECGNyC-x_s	
Describe the properties of polymers https://www.youtube.com/watch?v=EPOzfm_FVqc	
Recognise polymers from their diagrams	
Name different giant covalent structures https://www.youtube.com/watch?v=Qd2_LeCW7wo	
Name diagrams of giant covalent structures	
Explain the properties of diamond https://www.youtube.com/watch?v=tGH0mXCcEFU	
Explain the properties of graphite	
Recognise graphene and fullerenes from diagrams https://www.youtube.com/watch?v=4ZE+S5qLOHs	
State examples of the uses of fullerenes including carbon nanotubes	
Chapter 3:	
Describe what a mole is https://www.youtube.com/watch?v=wPGVQu3UXpw	
Calculate relative formula mass and link to number of moles https://www.youtube.com/watch?v=it_fMQu5ivg	
Calculate masses from symbol equations https://www.youtube.com/watch?v=TV6n5MFH6IU	
Describe what a limiting reactant is and how it affects a reaction https://www.youtube.com/watch?v=MuzOmFhiE8o	
Calculate concentration https://www.youtube.com/watch?v=kJBbu7_vYC8	

Chapter 4:	
Describe how to make a metal oxide https://www.youtube.com/watch?v=Lk1V0buHEFs	
Define reduction and oxidation in terms of oxygen https://www.youtube.com/watch?v=jyvcVjrZnJA	
Reactivity series https://www.youtube.com/watch?v=MDQr5QFVGkk	
Displacement reactions - metals and metal salts https://www.youtube.com/watch?v=2i5Lm7BMtpo	
Extraction of metals using reduction https://www.youtube.com/watch?v=gvNuMpxqG7Q	
Construct word equations when metals react with acids https://www.youtube.com/watch?v=ofw6oHSYGFI	
Neutralisation reactions https://www.youtube.com/watch?v=IBjwMcHUyBY	
Naming salts https://www.youtube.com/watch?v=WnAKhtnJjz0	
State the pH scale with numbers and colours https://www.youtube.com/watch?v=ckbsHM2igT0	
RPA making salts https://www.youtube.com/watch?v=9GH95172Js8	
Describe the process of electrolysis https://www.youtube.com/watch?v=AhTRiL6xjBA	
Predict the products of molten ionic compounds	
Describe how electrolysis is used to extract metals especially aluminium https://www.youtube.com/watch?v=YcyMEIBEzAY	
Predict the products of aqueous solutions	
Explain why an acid is strong or weak in terms of ions https://www.youtube.com/watch?v=4pHhXfGZIE	
RPA electrolysis https://www.youtube.com/watch?v=tCHE_7QeRUc	
Chapter 5	
RPA temperature changes https://www.youtube.com/watch?v=tKxcQYZ2YH8	
Define exothermic and endothermic reactions with examples https://www.youtube.com/watch?v=dstRL5xB0Sk	
Label energy profiles for exothermic and endothermic reactions	

Calculate bond energies

<https://www.youtube.com/watch?v=eExCBkp4jB4>

Chemistry Paper 2

Topic	Tick
Chapter 6	
State the factors that affect the rate of the reaction https://www.youtube.com/watch?v=SPXanyy3-hU	
Explain how concentration affects the rate of reaction using the collision theory https://www.youtube.com/watch?v=u4Co4N-Jmbs	
RPA concentration affect the rate of reaction https://www.youtube.com/watch?v=N5p06i9ilmo	
Explain how temperature affects the rate of reaction using the collision theory https://www.youtube.com/watch?v=G2TEfhwgq84	
Explain how surface area affects the rate of reaction using the collision theory https://www.youtube.com/watch?v=WojotwxPD6I	
Describe how a catalyst affects the rate of reaction https://www.youtube.com/watch?v=m_9bpZep1QM	
Describe what a reversible reaction is https://www.youtube.com/watch?v=ty9TczsW5ew	
State what equilibrium is	
Explain the conditions that affect equilibrium https://www.youtube.com/watch?v=IYyoncESnmQ	
Chapter 7	
Describe the formation of crude oil https://www.youtube.com/watch?v=wfSvbLQNwFc	
State the general formula for alkanes https://www.youtube.com/watch?v=ykIFTtTjoso	
Draw, name and write the formula of the first 4 alkanes	
Describe the process of fractional distillation https://www.youtube.com/watch?v=CjmriZq5xRo	
Describe the trend in boiling points of hydrocarbons https://www.youtube.com/watch?v=4EAh9E2KhOE	
Describe the trend in viscosity of hydrocarbons	
Describe the trend in flammability of hydrocarbons	
Write word and symbol equations for complete combustion https://www.youtube.com/watch?v=cRnpKjHpFyq	
Write word and symbol equations for incomplete combustion	

Describe the process of cracking https://www.youtube.com/watch?v=7AWwjKbRa_o	
Describe the purpose of cracking	
Describe the test for alkenes https://www.youtube.com/watch?v=qEm-CaghcOs	
Chapter 8	
Define what a pure substance is https://www.youtube.com/watch?v=3oJxWwcnfJY	
Use melting and boiling point data to distinguish pure substances from impure substances	
Define formulation	
RPA chromatography https://www.youtube.com/watch?v=P8i4QYncQxI	
Chapter 9	
State the proportion of gases in the Earth's atmosphere https://www.youtube.com/watch?v=IOh_-3MOPso	
Describe the formation of the Earth's atmosphere	
Chemistry Chapter 10	
State examples of natural resources https://www.youtube.com/watch?v=1UQnUQR0tTo	
Distinguish between finite and renewable resources	
Describe the process of making potable water from fresh water https://www.youtube.com/watch?v=PDeiRIQvWnM	
Describe the process of desalination of salty water	
Describe the process of sewage treatment https://www.youtube.com/watch?v=n7pYRQs20bI	