

Combined Science: Foundation Revision list

Chemistry Paper 1

Topic	Tick
Chapter 1:	
The position of elements in the Periodic Table in terms of atomic number and arrangements of electrons https://www.youtube.com/watch?v=IdS9roW7IzM	
History of the Periodic Table https://www.youtube.com/watch?v=uwzXfZoCP_k	
Metals and non metals (including properties, atomic structure, reactions) https://www.youtube.com/watch?v=Rc2JBp91V7o	
Group 0 - name, properties and reactivity in terms of electron structure https://www.youtube.com/watch?v=VhiieTJWYHs	
Group 1 - name, properties and reactivity in terms of electron structure https://www.youtube.com/watch?v=dZGDUKQa_6g	
Group 7 - name, displacement reactions, properties and reactivity in terms of electron structure https://www.youtube.com/watch?v=yW_C10cEzM	
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	
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 https://www.youtube.com/watch?v=tGH0mXCcEFU	

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 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=ckbsHM2igTO	
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	
RPA electrolysis https://www.youtube.com/watch?v=tCHE_7QeRUc	
Chapter 5	
RPA temperature changes https://www.youtube.com/watch?v=tKxcQYZ2YH8	

Chemistry Paper 2

Topic	Tick
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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=Wo jotwxPD6I	
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	
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=cRnpKjHpFyg	
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-CaqhcOs	
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	
Describe how sulphur dioxide is formed and what environmental problem it causes https://www.youtube.com/watch?v=yLp6LOgPHmI	
Describe how oxides of nitrogen is formed and what environmental problem it causes	
Describe how carbon dioxide is formed and what environmental problem it causes	
Describe how carbon monoxide is formed and what environmental problem it causes	
Describe how soot (carbon particulates) is formed and what environmental problem it causes	
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	