

## Chemistry: Higher Revision list

### Paper 1

Topic	Tick
<b>Chapter 1:</b>	
The position of elements in the Periodic Table in terms of atomic number and arrangements of electrons <a href="https://www.youtube.com/watch?v=IdS9roW7IzM">https://www.youtube.com/watch?v=IdS9roW7IzM</a>	
History of the Periodic Table <a href="https://www.youtube.com/watch?v=uwzXfZoCP_k">https://www.youtube.com/watch?v=uwzXfZoCP_k</a>	
Metals and non metals (including properties, atomic structure, reactions) <a href="https://www.youtube.com/watch?v=Rc2JBp91V7o">https://www.youtube.com/watch?v=Rc2JBp91V7o</a>	
Group 0 - name, properties and reactivity in terms of electron structure <a href="https://www.youtube.com/watch?v=VhiieTJWYHs">https://www.youtube.com/watch?v=VhiieTJWYHs</a>	
Group 1 - name, properties and reactivity in terms of electron structure <a href="https://www.youtube.com/watch?v=dZGDUKQa_6g">https://www.youtube.com/watch?v=dZGDUKQa_6g</a>	
Group 7 - name, displacement reactions, properties and reactivity in terms of electron structure <a href="https://www.youtube.com/watch?v=yW_C10cEzM">https://www.youtube.com/watch?v=yW_C10cEzM</a>	
Transition elements - describe their properties and compare with Group 1 properties <a href="https://www.youtube.com/watch?v=m0Uj7mSC6HU">https://www.youtube.com/watch?v=m0Uj7mSC6HU</a>	
<b>Chapter 2:</b>	
Describe ionic bonding <a href="https://www.youtube.com/watch?v=6DtrrWA5nkE">https://www.youtube.com/watch?v=6DtrrWA5nkE</a>	
Draw dot and cross diagrams for ionic bonding <a href="https://www.youtube.com/watch?v=gbx1pcFn4ws">https://www.youtube.com/watch?v=gbx1pcFn4ws</a>	
Explain the pros and cons of models of bonding <a href="https://www.youtube.com/watch?v=0khrZnl9ClQ">https://www.youtube.com/watch?v=0khrZnl9ClQ</a>	
Describe covalent bonding <a href="https://www.youtube.com/watch?v=5I_1jRGSr9E">https://www.youtube.com/watch?v=5I_1jRGSr9E</a>	
Draw dot and cross diagrams for covalent bonding <a href="https://www.youtube.com/watch?v=KV2KxBxmOKA">https://www.youtube.com/watch?v=KV2KxBxmOKA</a>	
Describe metallic bonding <a href="https://www.youtube.com/watch?v=b1y2Q6YX1bQ">https://www.youtube.com/watch?v=b1y2Q6YX1bQ</a>	
Particle diagrams with descriptions <a href="https://www.youtube.com/watch?v=OTksau0_VoI">https://www.youtube.com/watch?v=OTksau0_VoI</a>	
Predict the state of substances at different temperatures given data <a href="https://www.youtube.com/watch?v=h7ErVAZbeu0">https://www.youtube.com/watch?v=h7ErVAZbeu0</a>	
Know the state symbols	
Describe the properties of ionic compounds <a href="https://www.youtube.com/watch?v=AGD5pIXXt4o">https://www.youtube.com/watch?v=AGD5pIXXt4o</a>	
Describe the properties of simple covalent molecules <a href="https://www.youtube.com/watch?v=DECGNyC-x_s">https://www.youtube.com/watch?v=DECGNyC-x_s</a>	

Describe the properties of polymers <a href="https://www.youtube.com/watch?v=EPOzfm_FVqc">https://www.youtube.com/watch?v=EPOzfm_FVqc</a>	
Recognise polymers from their diagrams	
Name different giant covalent structures <a href="https://www.youtube.com/watch?v=Qd2_LeCW7wo">https://www.youtube.com/watch?v=Qd2_LeCW7wo</a>	
Name diagrams of giant covalent structures	
Explain the properties of diamond <a href="https://www.youtube.com/watch?v=tGH0mXCcEFU">https://www.youtube.com/watch?v=tGH0mXCcEFU</a>	
Explain the properties of graphite	
Recognise graphene and fullerenes from diagrams <a href="https://www.youtube.com/watch?v=4ZEtS5qLOHs">https://www.youtube.com/watch?v=4ZEtS5qLOHs</a>	
State examples of the uses of fullerenes including carbon nanotubes	
<b>Chapter 3:</b>	
Describe what a mole is <a href="https://www.youtube.com/watch?v=wPGVQu3UXpw">https://www.youtube.com/watch?v=wPGVQu3UXpw</a>	
Calculate relative formula mass and link to number of moles <a href="https://www.youtube.com/watch?v=it_fMQu5ivg">https://www.youtube.com/watch?v=it_fMQu5ivg</a>	
Calculate masses from symbol equations <a href="https://www.youtube.com/watch?v=TV6n5MFH6IU">https://www.youtube.com/watch?v=TV6n5MFH6IU</a>	
Describe what a limiting reactant is and how it affects a reaction <a href="https://www.youtube.com/watch?v=MuzOmFhiE8o">https://www.youtube.com/watch?v=MuzOmFhiE8o</a>	
Calculate concentration <a href="https://www.youtube.com/watch?v=kJBbu7_vYC8">https://www.youtube.com/watch?v=kJBbu7_vYC8</a>	
<b>Chapter 4:</b>	
Describe how to make a metal oxide <a href="https://www.youtube.com/watch?v=Lk1V0buHEFs">https://www.youtube.com/watch?v=Lk1V0buHEFs</a>	
Define reduction and oxidation in terms of oxygen <a href="https://www.youtube.com/watch?v=jyvcVjrZnJA">https://www.youtube.com/watch?v=jyvcVjrZnJA</a>	
Reactivity series <a href="https://www.youtube.com/watch?v=MDQr5QFVGkk">https://www.youtube.com/watch?v=MDQr5QFVGkk</a>	
Displacement reactions - metals and metal salts <a href="https://www.youtube.com/watch?v=2i5Lm7BMtpo">https://www.youtube.com/watch?v=2i5Lm7BMtpo</a>	
Extraction of metals using reduction <a href="https://www.youtube.com/watch?v=gvNuMpxqG7Q">https://www.youtube.com/watch?v=gvNuMpxqG7Q</a>	
Construct word equations when metals react with acids <a href="https://www.youtube.com/watch?v=ofw6oHSYGFI">https://www.youtube.com/watch?v=ofw6oHSYGFI</a>	
Neutralisation reactions <a href="https://www.youtube.com/watch?v=IBjwMCHUyBY">https://www.youtube.com/watch?v=IBjwMCHUyBY</a>	
Naming salts <a href="https://www.youtube.com/watch?v=WnAKhtnJjz0">https://www.youtube.com/watch?v=WnAKhtnJjz0</a>	
State the pH scale with numbers and colours <a href="https://www.youtube.com/watch?v=ckbsHM2iqT0">https://www.youtube.com/watch?v=ckbsHM2iqT0</a>	

Explain why an acid is strong or weak in terms of ions <a href="https://www.youtube.com/watch?v=4pIHhXfGZIE">https://www.youtube.com/watch?v=4pIHhXfGZIE</a>	
RPA making salts <a href="https://www.youtube.com/watch?v=9GH95172Js8">https://www.youtube.com/watch?v=9GH95172Js8</a>	
RPA titration <a href="https://www.youtube.com/watch?v=vn3Rx3g1VPk">https://www.youtube.com/watch?v=vn3Rx3g1VPk</a>	
Describe the process of electrolysis <a href="https://www.youtube.com/watch?v=AhTRiL6xjBA">https://www.youtube.com/watch?v=AhTRiL6xjBA</a>	
Predict the products of molten ionic compounds	
Describe how electrolysis is used to extract metals especially aluminium <a href="https://www.youtube.com/watch?v=YcyMEIBEzAY">https://www.youtube.com/watch?v=YcyMEIBEzAY</a>	
Predict the products of aqueous solutions	
Complete half equations for electrolysis <a href="https://www.youtube.com/watch?v=8xuNffjUrJU">https://www.youtube.com/watch?v=8xuNffjUrJU</a>	
<b>Chapter 5:</b>	
Define exothermic and endothermic reactions with examples <a href="https://www.youtube.com/watch?v=dstRL5xB0Sk">https://www.youtube.com/watch?v=dstRL5xB0Sk</a>	
Label energy profiles for exothermic and endothermic reactions	
RPA temperature changes <a href="https://www.youtube.com/watch?v=tKxcQYZ2YH8">https://www.youtube.com/watch?v=tKxcQYZ2YH8</a>	
Calculate bond energies <a href="https://www.youtube.com/watch?v=eExCBkp4jB4">https://www.youtube.com/watch?v=eExCBkp4jB4</a>	

## Chemistry Paper 2

Topic	Tick
<b>Chapter 6</b>	
State the factors that affect the rate of the reaction <a href="https://www.youtube.com/watch?v=SPXanny3-hU">https://www.youtube.com/watch?v=SPXanny3-hU</a>	
Explain how concentration affects the rate of reaction using the collision theory <a href="https://www.youtube.com/watch?v=u4Co4N-Jmbs">https://www.youtube.com/watch?v=u4Co4N-Jmbs</a>	
RPA concentration affect the rate of reaction <a href="https://www.youtube.com/watch?v=N5p06i9ilmo">https://www.youtube.com/watch?v=N5p06i9ilmo</a>	
Explain how temperature affects the rate of reaction using the collision theory <a href="https://www.youtube.com/watch?v=G2TEfhwgq84">https://www.youtube.com/watch?v=G2TEfhwgq84</a>	
Explain how surface area affects the rate of reaction using the collision theory <a href="https://www.youtube.com/watch?v=WojotwxPD6I">https://www.youtube.com/watch?v=WojotwxPD6I</a>	
Describe how a catalyst affects the rate of reaction <a href="https://www.youtube.com/watch?v=m_9bpZep1QM">https://www.youtube.com/watch?v=m_9bpZep1QM</a>	
Describe what a reversible reaction is <a href="https://www.youtube.com/watch?v=ty9TczsW5ew">https://www.youtube.com/watch?v=ty9TczsW5ew</a>	
State what equilibrium is	
Explain the conditions that affect equilibrium <a href="https://www.youtube.com/watch?v=IYyoncESnmQ">https://www.youtube.com/watch?v=IYyoncESnmQ</a>	

<b>Chapter 7</b>	
Describe the formation of crude oil <a href="https://www.youtube.com/watch?v=wfSvblQNwFc">https://www.youtube.com/watch?v=wfSvblQNwFc</a>	
State the general formula for alkanes <a href="https://www.youtube.com/watch?v=ykIFTtTjoso">https://www.youtube.com/watch?v=ykIFTtTjoso</a>	
Draw, name and write the formula of the first 4 alkanes	
Describe the process of fractional distillation <a href="https://www.youtube.com/watch?v=Cjmrizq5xRo">https://www.youtube.com/watch?v=Cjmrizq5xRo</a>	
Describe the trend in boiling points of hydrocarbons <a href="https://www.youtube.com/watch?v=4EAh9E2KhOE">https://www.youtube.com/watch?v=4EAh9E2KhOE</a>	
Describe the trend in viscosity of hydrocarbons	
Describe the trend in flammability of hydrocarbons	
Write word and symbol equations for complete combustion <a href="https://www.youtube.com/watch?v=cRnpKjHpFyg">https://www.youtube.com/watch?v=cRnpKjHpFyg</a>	
Write word and symbol equations for incomplete combustion	
Describe the process of cracking <a href="https://www.youtube.com/watch?v=7AWwjKbRa_o">https://www.youtube.com/watch?v=7AWwjKbRa_o</a>	
Describe the purpose of cracking	
Describe the test for alkenes <a href="https://www.youtube.com/watch?v=qEm-CaqhcOs">https://www.youtube.com/watch?v=qEm-CaqhcOs</a>	
<b>Chapter 8</b>	
RPA chromatography <a href="https://www.youtube.com/watch?v=P8i4QYncQxI">https://www.youtube.com/watch?v=P8i4QYncQxI</a>	
Describe the method of flame tests and results	
Describe the sodium hydroxide test with results	
Describe how to test for carbonates with results	
Describe how to test for halides with results	
Describe how to test for sulfates with results	
RPA ion tests <a href="https://www.youtube.com/watch?v=4iZRs4XIJOE">https://www.youtube.com/watch?v=4iZRs4XIJOE</a>	
<b>Chapter 9</b>	
State the proportion of gases in the Earth's atmosphere <a href="https://www.youtube.com/watch?v=IOh_-3MOPso">https://www.youtube.com/watch?v=IOh_-3MOPso</a>	
Describe the formation of the Earth's atmosphere	
<b>Chemistry Chapter 10</b>	
State examples of natural resources <a href="https://www.youtube.com/watch?v=1UQnUQR0tTo">https://www.youtube.com/watch?v=1UQnUQR0tTo</a>	
Distinguish between finite and renewable resources	
Describe the process of making potable water from fresh water <a href="https://www.youtube.com/watch?v=PDeiRIQvWnM">https://www.youtube.com/watch?v=PDeiRIQvWnM</a>	
Describe the process of desalination of salty water	
Describe the process of sewage treatment <a href="https://www.youtube.com/watch?v=n7pYRQs20bI">https://www.youtube.com/watch?v=n7pYRQs20bI</a>	
Describe the Haber Process <a href="https://www.youtube.com/watch?v=1_HoWz5Kxfk">https://www.youtube.com/watch?v=1_HoWz5Kxfk</a>	
Describe how NPK fertilisers are produced and used <a href="https://www.youtube.com/watch?v=rKzt9BvvEeQ">https://www.youtube.com/watch?v=rKzt9BvvEeQ</a>	

