



آغا خان یونیورسٹی ایگزامینیشن بورڈ
AGA KHAN UNIVERSITY EXAMINATION BOARD

Teaching and Learning Resources for Grade IX Chemistry

Recommended Key Textbook:

Chemistry for Grade 9, National Book Foundation, Islamabad

Additional Recommended Resource Material				
Topic No.	Topic	Reference Book	Topic in the Reference Book	Website
1	Fundamentals of Chemistry	<i>Chemistry 9</i> , Caravan Book House, Lahore.	Unit 1: Fundamentals of Chemistry	
		Tan Yin Toon, Chen Ling Kwong, John Sadler and Emily Clare, <i>Chemistry Matters G.C.E. 'O' level</i> , Marshall Cavendish Education.	Chapter 9: The Mole	
		<i>Chemistry for Class 9</i> , Punjab Textbook Board, Lahore.	Chapter 2: Chemical Combination and Chemical Equations	https://www.youtube.com/watch?v=kYTCruQZdaU
		Christopher N. Prescott, <i>Chemistry, A Course for 'O' Level</i> , Marshall Cavendish Education.	Unit 7: Chemical Formulae and Equations Unit 8: The Mole	

Topic No.	Topic	Reference Book	Topic in the Reference Book	Website
2	Atomic Structure	Tan Yin Toon, Chen Ling Kwong, John Sadler and Emily Clare, <i>Chemistry Matters G.C.E. 'O' level</i> , Marshall Cavendish Education.	Chapter 5: Atomic Structure	
		<i>Chemistry 9</i> , Caravan Book House, Lahore.	Unit 2: Structure of Atoms	
3	Periodic Table and Periodicity	<i>Chemistry 9</i> , Caravan Book House, Lahore.	Unit 3: Periodic table and Periodicity of Properties	
		Rose Marie Gallagher and Paul Ingram, <i>Complete Chemistry</i> , Oxford University Press.	Unit 2: What are those particles?	
4	Structure of Molecules	<i>Chemistry 9</i> , Caravan Book House, Lahore.	Unit 4: Structure of Molecules	https://www.youtube.com/watch?v=1g_psVD4bl0&list=PLE12331E9AB4BAE14
		<i>Chemistry for IX & X</i> , Sindh Textbook Board, Jamshoro.	Chapter 5: Chemical Bonding	http://www.auseetute.com.au/intermof.html
		Rose Marie Gallagher and Paul Ingram, <i>Complete Chemistry</i> , Oxford University Press.	Unit 3: Atoms Combining	
		Dr Rex M. Heyworth and J. G. R. Briggs, <i>All About Chemistry 'O' Level</i> , Hodder Education Singapore.	Chapter 6: Chemical Bonds Chapter 7: Structure and Properties	

Topic No.	Topic	Reference Book	Topic in the Reference Book	Website
		Tan Yin Toon, Chen Ling Kwong, John Sadler and Emily Clare, <i>Chemistry Matters G.C.E. 'O' level</i> , Marshall Cavendish Education.	Chapter 7: Covalent and Metallic Bonding	
5	States of Matter	<i>Chemistry 9</i> , Caravan Book House, Lahore.	Unit 5: Physical States of Matter	
		Rose Marie Gallagher and Paul Ingram, <i>Complete Chemistry</i> , Oxford University Press.	Unit 1: Particles in Chemistry Unit 3: Atoms Combining	
		Tan Yin Toon, Chen Ling Kwong, John Sadler and Emily Clare, <i>Chemistry Matters G.C.E. 'O' level</i> , Marshall Cavendish Education.	Chapter 7: Covalent and Metallic Bonding	
		Christopher N. Prescott, <i>Chemistry, A Course for 'O' Level</i> , Marshall Cavendish Education.	Unit 2: Particles of Matter	
6	Solutions	<i>Chemistry 9</i> , Caravan Book House, Lahore.	Unit 6: Solutions	http://www.bbc.co.uk/schools/gcsebitesize/science/add_edexcel/covalent_compounds/seperationrev2.shtml

Topic No.	Topic	Reference Book	Topic in the Reference Book	Website
		<i>Chemistry for IX & X</i> , Sindh Textbook Board, Jamshoro.	Chapter 7: Solution and Suspension Chapter 16: Metals and their Extraction	http://www.chemguide.co.uk/analysis/chromatography/paper.html
		Rose Marie Gallagher and Paul Ingram, <i>Complete Chemistry</i> , Oxford University Press.	Unit 1: Particles in Chemistry Unit 20: Further Topics	
		Tan Yin Toon, Chen Ling Kwong, John Sadler and Emily Clare, <i>Chemistry Matters G.C.E. 'O' level</i> , Marshall Cavendish Education.	Chapter 3: Purification and Separation	
7	Electrochemistry	<i>Chemistry 9</i> , Caravan Book House, Lahore.	Unit 7: Electrochemistry	https://www.bbc.co.uk/bitesize/guides/zcxn82p/revision/1
		Tan Yin Toon, Chen Ling Kwong, John Sadler and Emily Clare, <i>Chemistry Matters G.C.E. 'O' level</i> , Marshall Cavendish Education.	Chapter 14: Metals Chapter 15: Electrolysis	https://www.onlinemathlearnin.com/reactivity-series.html
		Christopher N. Prescott, <i>Chemistry, A Course for 'O' Level</i> , Marshall Cavendish Education.	Unit 9: Electricity and Chemicals Unit 12: Redox Reactions Unit 18: Metals	

Topic No.	Topic	Reference Book	Topic in the Reference Book	Website
8	Chemical Reactivity	<i>Chemistry 9</i> , Caravan Book House, Lahore.	Unit 8: Chemical Reactivity	
		<i>Chemistry for IX & X</i> , Sindh Textbook Board, Jamshoro.	Chapter 5: Chemical Bonding Chapter 16: Metals and their Extraction	

Note: This resource list has been prepared primarily for teachers. While it can be shared with students, students should not be required to buy multiple books. Schools are encouraged to stock these books in the library. Moreover, these are only suggestions which have been compiled for the ease of teachers and students; schools are encouraged to use other resources for teaching and learning as well, as long as they are in line with the student learning outcomes (SLOs) mentioned in AKU-EB syllabi. Unless specified, AKU-EB does not endorse any of these books or websites. You are advised to use an ad-blocker while accessing the websites. In case any website is not functional for any reason, you may inform us at examination.board@aku.edu for an alternative or search material via any search engine. If you have any query, please contact us via email.



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Teaching and Learning Resources for Grade X Chemistry

Recommended Key Textbook:

Chemistry for Grade 10, National Book Foundation, Islamabad

Additional Recommended Resource Material				
Topic No.	Topic	Reference Book	Topic in the Reference Book	Website
9	Chemical Equilibrium	<i>Chemistry 10</i> , Caravan Book House, Lahore.	Unit 9: Chemical Equilibrium	http://www.usetute.com.au/lechatsp.html
		Tan Yin Toon, Chen Ling Kwong, John Sadler and Emily Clare, <i>Chemistry Matters G.C.E. 'O' level</i> , Marshall Cavendish Education.	Chapter 17: Energy Changes	http://www.chemguide.co.uk/physical/equilibria/lechatelier.html
		Christopher N. Prescott, <i>Chemistry, A Course for 'O' Level</i> , Marshall Cavendish Education.	Unit 10: Energy from Chemicals	
		Rose Marie Gallagher and Paul Ingram, <i>Complete Chemistry</i> , Oxford University Press.	Unit 8: How fast are reactions?	

Topic No.	Topic	Reference Book	Topic in the Reference Book	Website
		<i>Chemistry for Class 11</i> . Punjab Textbook Board, Lahore.	Chapter 8: Chemical Equilibrium	
10	Acids, Bases and Salts	<i>Chemistry 10</i> , Caravan Book House, Lahore.	Unit 10: Acids, Bases and Salts	
		<i>Chemistry for IX & X</i> , Sindh Textbook Board, Jamshoro.	Chapter 9: Acids, Bases and Salts	
11	Organic Chemistry	<i>Chemistry 10</i> , Caravan Book House, Lahore.	Unit 11: Organic Chemistry	
		<i>Chemistry for XII</i> , Sindh Textbook Board, Jamshoro.	Chapter 6: Introduction to Organic Chemistry	
12	Hydrocarbons	<i>Chemistry 10</i> , Caravan Book House, Lahore.	Unit 12: Hydrocarbons	https://byjus.com/jee/hydrocarbons/
		<i>Chemistry for XII</i> , Sindh Textbook Board, Jamshoro.	Chapter 7: Chemistry of Hydrocarbons	
		<i>Chemistry for Class 10</i> . Punjab Textbook Board, Lahore.	Chapter 17: Organic Chemistry	
		Dr Rex M. Heyworth and J. G. R. Briggs, <i>All About Chemistry 'O' Level</i> , Hodder Education Singapore.	Chapter 25: Alkanes and Alkenes	

Topic No.	Topic	Reference Book	Topic in the Reference Book	Website
13	Biochemistry	<i>Chemistry 10</i> , Caravan Book House, Lahore.	Unit 13: Biochemistry	http://glencoe.mheducation.com/sites/9834092339/student_view0/chapter3/protein_denaturation.html
		<i>Chemistry for Grade 12</i> , National Book Foundation, Islamabad.	Chapter 21: Biochemistry	https://www.youtube.com/watch?v=O5uqdxQyJj8
		Rose Marie Gallagher and Paul Ingram, <i>Complete Chemistry</i> , Oxford University Press.	Unit 8: How fast are reactions? Unit 20: Further Topics	https://www.britannica.com/science/agricultural-sciences https://www.britannica.com/science/nutrition
14	Environmental Chemistry I: Atmosphere	<i>Chemistry 10</i> , Caravan Book House, Lahore.	Unit 14: The Atmosphere	
		<i>Chemistry for Grade 12</i> , National Book Foundation, Islamabad.	Chapter 23: Environmental Chemistry	
		Dr Rex M. Heyworth and J. G. R. Briggs, <i>All About Chemistry 'O' Level</i> , Hodder Education Singapore.	Chapter 23: Air and the Environment	

Topic No.	Topic	Reference Book	Topic in the Reference Book	Website
15	Environmental Chemistry II: Water	<i>Chemistry 10</i> , Caravan Book House, Lahore.	Unit 15: Water	
		<i>Chemistry for Class 10</i> . Punjab Textbook Board, Lahore.	Chapter 11: Hydrogen and Water	
		<i>Chemistry for IX & X</i> , Sindh Textbook Board, Jamshoro.	Chapter 11: Hydrogen and Water	
		Rose Marie Gallagher and Paul Ingram, <i>Complete Chemistry</i> , Oxford University Press.	Unit 11: Air and Water	
16	Chemical Industries	<i>Chemistry 10</i> , Caravan Book House, Lahore.	Unit 16: Chemical Industries	http://www.chemguide.co.uk/inorganic/extraction/aluminium.html
		<i>Chemistry for IX & X</i> , Sindh Textbook Board, Jamshoro.	Chapter 13: Nitrogen and Oxygen Chapter 16: Metals and Their Extraction	http://www.chemguide.co.uk/physical/equilibria/contact.html
		Rose Marie Gallagher and Paul Ingram, <i>Complete Chemistry</i> , Oxford University Press.	Unit 13: Making Use Of Metals Unit 14: Non-metals: Hydrogen and Nitrogen Unit 15: Non-Metals: Oxygen, Sulphur And The Halogens	https://www.bbc.co.uk/bitesize/guides/zcc6dxs/revision/1

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		Tan Yin Toon, Chen Ling Kwong, John Sadler and Emily Clare, <i>Chemistry Matters G.C.E. 'O' level</i> , Marshall Cavendish Education.	Chapter 19: Ammonia	
		Christopher N. Prescott, <i>Chemistry, A Course for 'O' Level</i> , Marshall Cavendish Education.	Unit 15: Ammonia and its Uses	http://www.chemguide.co.uk/physical/equilibria/haber.html

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