

ARMY PUBLIC SCHOOL MUMBAI
Standard Curriculum 2018-19

CLASS X

SUBJECT : SCIENCE (CHEMISTRY)

SR.NO	Month	Name of Chapter	Topic Name	Activity	Values/Skills	Core value
1	APRIL To 3rd MAY	Chemical reactions and chemical equations	Chemical equations	A. To carry out following reactions and to identify these-	1. Team work and cooperation	Knowledge
			Different types of Chemical reactions	1. Reaction of Zinc with dil H ₂ SO ₄	2. Logical thinking	
			Balancing of Chemical equations	2. Reaction of Na ₂ SO ₄ with BaCl ₂	3. Curiosity	
			Corrosion	3. Reaction of Fe with CuSO ₄ solution	4. Confidence	
			Rancidity	4. Reaction of CaO with H ₂ O		
				5. Heating of FeSO ₄ crystals		
				Activity to show for corrosion of iron , both water and oxygen is required		
2	JUNE-JULY	Acids, Bases and Salts	Acids and their properties	A To carry out reaction of acid (HCl) with the following:	1. Decision making	Environmental awareness and Positive attitude
			Bases and their properties	Litmus solution, Zinc metal ,Na ₂ CO ₃	2. Confidence	
			Indicators-	Identify acids and bases using indicators	3. Development of knowledge, skills and attitudes	
			Different types of salts		4. Innovative mind set	
					5. Interest	
				B To carry out reaction of the base (NaOH) with the following: Litmus solution,Zinc metal, Acid		
			Water of crystallisation	C To study water of crystallisation in CuSO ₄ .5H ₂ O	1. Critical thinking	
					2. Positive Attitude	

3	AUGUST	Metals and non- metals	- Metals and their physical properties	A To study the reactivity of Fe, Al, and Cu and to arrange them in increasing order of reactivity	1. Knowledge	National pride and time management
			- Chemical properties of metals		2. Motivation	
			- Non- metals and their properties		3. Logical Thinking	
			- Combination of metals and non- metals			
				B To show the formation of NaCl, MgCl ₂ and AlCl ₃ with the help of electron dot structure. Students will be told to draw structure on black board.	1. Critical thinking	
					2. Confidence	
					3. Self esteem	
					4. Positive attitude	
					5. To activate students' thinking	
4	SEPTEMBER	Metals and non- metals	- Properties of ionic compounds	1. To prepare table for different steps of Metallurgy depending on their reactivities	1. Creative thinking	National pride and time management
			- Metallurgy		2. Self awareness	
			- Alloys	2. To draw flowsheet diagram for extraction of metals on chart (group activity)	3. Inclusivity	
			- Corrosion		4. Team work	
				3. To prepare a chart based purification of metals (remaining students)	5. Leadership	
					6. Satisfaction of successful learning	
					7. Inventiveness	
					8. Creativity	
5	OCTOBER	Carbon and its	- Versatile nature of	1. To make models of Carbon and Graphite.	1. Creativity	Respecting differences

		compounds	Carbon			
			- Allotrops of Carbon		2. Innovative	
			- Hydrocarbons and their classification		3. Broader outlook	
				2. To identify saturated and unsaturated Hydrocarbons.	1. Keen observation	
					2. Curiosity	
					3. Intelligence	
6	NOVEMBER	Carbon and its compounds	- IUPAC naming of organic compounds	1. To write the names of given organic compounds	1. Encourage active participation of learners	Health and wellness
			- Reactions of organic compounds			
				2. To carry out reactions of organic compounds and note down the observations.	1. Keen observation	
					2. Ensuring active participation of learners	
				3. To show teach next module and recaptitulation	3. Sustain attention and engagement of learners	
7	DECEMBER	Carbon and its compounds	- Soaps and detergents	1. To prepare soap in the lab.	1. Creative thinking	Camaraderie
			- Washing action of soap		2. Innovative mind set	
			- Comparison between soap and detergent	2. To identify hard water and soft water using soap.	3. Team work	
					4. Togetherness	
					5. Interest	
8	JANUARY	Periodic classification of elements	- Dobernier's Triad	1. To show the periodic table chart to students. Students will have to identify periods, groups, etc.	1. Thinking skills	Self - direction
			- Newland's Law of Octaves		2. Critical analysis	
			- Mendeleev's periodic table			

			- Modern periodic table			
9	FEBRUARY	Periodic classification of elements	- Variation of different properties along the period and across the group.	1. Teach-Next Module will be shown and questions will be asked.	1. Knowledge	Self - direction And Right Conduct
					2. Confidence	
					3. Positive attitude	