

**ARMY PUBLIC SCHOOL MUMBAI (2019-2020)**  
**STANDARD CURRICULUM**

**CLASS: X**

**SUB: SCIENCE (CHEMISTRY)**

<b>SR.NO</b>	<b>Month</b>	<b>Name of Chapter</b>	<b>Topic Name</b>	<b>Activity</b>	<b>Values/Skills</b>	<b>Core value</b>
1	APRIL To 3rd MAY	Chemical reactions and	Chemical equations	A. To carry out following reactions and to identify these-	1. Team work and cooperation	Self Awareness and Teamwork
		chemical equations	Different types of Chemical reactions	1. Reaction of Zinc with dil H <sub>2</sub> SO <sub>4</sub> 2. Reaction of Na <sub>2</sub> SO <sub>4</sub> with BaCl <sub>2</sub>	2. Logical thinking 3. Curiosity	
			Balancing of Chemical equations	3. Reaction of Fe with CuSO <sub>4</sub> solution	4. Confidence	
			Corrosion	4. Reaction of CaO with H <sub>2</sub> O		
			Rancidity	5. Heating of FeSO <sub>4</sub> 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	<b>A</b> To carry out reaction of acid (HCl) with the following:	1. Decision making	Team work and Environmental Awareness
			Bases and their properties	Litmus solution, Zinc metal ,Na <sub>2</sub> CO <sub>3</sub>	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>B</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	1. Critical thinking	

				$\text{CuSO}_4 \cdot 5\text{H}_2\text{O}$	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	Patriotism and Nationalism
			- 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, $\text{MgCl}_2$ and $\text{AlCl}_3$ 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 2. Self awareness	Discipline and Diligence
			- Metallurgy ,Alloys	2. To draw flowsheet diagram for extraction of metals on chart (group activity)	3. Inclusivity 4. Team work	
			- Corrosion	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 compounds	- Versatile nature of Carbon	1. To make models of Carbon and Graphite.	1. Creativity	Diversity and Togetherness
			- Allotropes of Carbon		2. Innovative	
			- Hydrocarbons and their classification	2. To identify saturated and unsaturated Hydrocarbons.	3. Broader outlook 4. Keen observation 5. Curiosity	

					6. 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	Gender sensitivity
			- 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 recapitulation	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	Perseverance
			- 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 - Newland's Law of Octaves - Mendeleev's periodic table - Modern periodic table	1. To show the periodic table chart to students. Students will have to identify periods, groups, etc.	1. Thinking skills 2. Critical analysis	Effective communication & Efficient time management
		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 2. Confidence 3. Positive attitude	
9	FEBRUARY	REVISION				