

**Week Wise Distributed Syllabus For**  
**Class X**  
**Science**  
**2009-10**

Month	Week Dates	Days	Syllabus	Suggested Activities	Experiments
April	I Week 1-4	3	<b>Chemical Reactions &amp; Equations-</b> Chemical Equations ,Type of chemical reactions	i. Burning of Mg ribbon ii. Reaction of Zn granules with dil HCl. iii. Formation of slaked lime by the reaction of CaO with water. iv. Heating crystals of FeSO <sub>4</sub> , CuSO <sub>4</sub> & Pb(NO <sub>3</sub> ) <sub>2</sub> . v. Reaction of CuSO <sub>4</sub> solution with iron nails dipped in it.	
April	II Week 6-9	3	<b>Chemical Reactions &amp; Equation-</b> Corrosion, Rancidity	i. Reaction between sodium sulphate solution and barium chloride solution ii. Oxidation of Cu to CuO iii .To Observe the rusting of Iron and conditions necessary for it iv .To observe the changes in colour , odor etc in cut fruits and vegetables	
April	III Week 13-18	6	<b>Acids, Bases &amp; salts</b> Common and Chemical properties of Acids & Bases Strength of Acids and Bases	i. Identification of Acids & bases using different indicators. ii. Passing CO <sub>2</sub> through Ca (OH) <sub>2</sub> solution iii. Reaction of metal carbonates and bicarbonates with acids.	<b>Exp.1</b> To Study the properties of acids and bases ( HCl, NaOH) and their reactions with I .Litmus ii. Zinc Metal iii. Sodium Carbonate
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<b>April</b>	IV Week 20-25	6	Importance of pH value, more about salts ,	i. To test the pH value of different solutions and soil. ii. To Test pH of different salts iii. Titration of Acid with Base using phenolphthalein	<b>Exp. 2</b> To Find pH of the following samples by using pH paper (universal indicator) –dil HCl, NaOH, Ethanoic acid, lemon juice, water, NaHCO <sub>3</sub>
<b>April</b>	V Week 27-30	3	Chemicals from common salts	To Prepare HCl from NaCl and conc. H <sub>2</sub> SO <sub>4</sub>	
<b>July</b>	I Week 1-4	4	<b>Life Processes</b> What are life processes, nutrition, respiration,	i. To show chlorophyll is essential for photosynthesis ii. Testing presence of CO <sub>2</sub> in exhaled air	<b>Exp.3</b> To show that CO <sub>2</sub> is given out during respiration. <b>Exp.4</b> To prepare a temporary mount leaf to show its stomata.
<b>July</b>	II Week 6-10	5	Transportation, Excretion	i. . To observe transpiration in plants ii. To study excretion system of man with the help of chart	<b>Exp.5</b> To show that light is necessary for photosynthesis <b>MCQ (IX)-Exp.1</b> To prepare true solution , Suspension and colloids and distinguish on the basis of transparency , filtration and stability

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July	III Week 13-18	6	<b>Light – Reflection &amp; Refraction</b> Reflection of light in spherical mirrors Refraction of Light	i. To study the images formed on both sides of a shining spoon. ii. To study the images formed through spherical lenses and mirrors of an object kept at different distances .	<b>Exp.6</b> I To determine the focal length of concave mirror by obtaining the image of distant object. ii. To determine the focal length of convex lens by obtaining the image of distant object. <b>Exp.7</b> To trace the path of ray of light passing through glass slab.
July	IV Week 20-25	6	<b>Human Eye &amp; the colorful world</b> Human eye, defects of vision and their correction, refraction of light through a prism. Dispersion of white light by glass prism, atmosphere refraction, scattering of light	i. To study the parts of human eye with the help of model of human eye. ii. To identify the students in the class with eye defects and to suggest correction of vision with nutritional remedy. iii. To study the path of light passing through prism. Iv .To study the dispersion of white light by glass prism. v. To study the scattering of light in colloidal solution	<b>MCQ(IX) Exp.2</b> To prepare a mixture and compound using Iron filings and Sulphur Powder and distinguish between their properties
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July	V Week 27-30, Aug 1	5	<b>Metals and Non Metals</b> Physical and chemicals properties of metals	i. To observe physical properties of metals such as Fe, Zn and Cu and non Metals such as Graphite, Sulphur	<b>Exp.8</b> To observe the action of Zn, Fe, Cu ,Al on ZnSO <sub>4</sub> , FeSO <sub>4</sub> , CuSO <sub>4</sub> , Al <sub>2</sub> (SO <sub>4</sub> ) <sub>3</sub>

			<p>reaction of metals and nonmetals, occurrence of metals ,corrosion</p>	<p>Iodine etc.</p> <p>ii. To test for the conductivity through Metals</p> <p>iii. To test the chemical properties of Metal Oxides and Non Metal Oxides</p> <p>iv. To study the chemical reactions of metals with water , acids and solutions of other Metal Salts</p> <p>v. To Study the reactivity series</p> <p>vi. To investigate the conditions under which Iron rusts</p>	<p><b>Exp.9</b></p> <p>To Prepare SO<sub>2</sub> Gas and observe its colour , Sol.ubility in water ,effect on Litmus paper and action of K<sub>2</sub>Cr<sub>2</sub>O<sub>7</sub></p>
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August	I Week 3-7	5	<b>Control and Coordination</b> Animals – Nervous system, coordination in plants, hormones in plants and animals	<ul style="list-style-type: none"> <li>i .To observe reflex action in one's body</li> <li>ii .To observe taste buds functioning.</li> <li>iii. To study parts of brain with the help of model/chart</li> <li>iv. To study endocrine glands in man with the help of chart.</li> <li>V .To study tropism in plants</li> </ul>	<b>MCQ(IX)Exp.3</b> To carry out different chemical reactions and classify them into different types
Aug	III Week 10-13	4	<b>Electricity</b> Electric current and circuit, electric potential and potential difference circuit diagram, Ohms Law	<ul style="list-style-type: none"> <li>i. To Prepare a simple circuit</li> <li>ii. To study symbols of different components of a circuit</li> <li>iii .To observe instruments such as Ammeter and Voltmeter and learn to calculate their least counts</li> </ul>	<b>Exp.10</b> To study the dependence of current on V & determine its resistance. Plot a graph between V & I
Aug	IV Week 17-22	6	<b>Electricity</b> Factors on which the resistance of a conductor depends, resistance of a system of resistors, heating effect of electric currents. Electric power		<b>Exp. 11 &amp; 12</b> To determine the equivalent resistance of two resistors in i.series and ii. in parallel

August	Vth Week 24-29	6	<b><u>Magnetic effects of electric current</u></b> Magnetic field and magnetic lines, Magnetic field around current carrying conductor, Force on a current carrying conductor in a magnetic field,	<ul style="list-style-type: none"> <li>i. To observe pattern formed by iron filling around magnet,</li> <li>ii. To observe magnetic lines around a bar magnet with the help of Compass.</li> <li>Iv To observe magnetic field around a wire carrying current,</li> <li>V To observe change in the direction of current.</li> </ul>	<b>MCQ(IX)Exp.4</b> To verify the laws of reflection of sound.
September	I Week 1-5	4	<b>4 September 09</b> <b>1st CCEP</b> <b><u>Magnetic effects of electric current</u></b> Electric motor, Electro magnetic induction.	<ul style="list-style-type: none"> <li>1. To set up current in the coil with the help of moving magnet</li> <li>2. To observe the magnetic field around current carrying loop.</li> </ul>	<b>MCQ(IX) Exp. 5</b> To determine the density of solid using spring balance and a measuring cylinder
September	II Week 7-9	3	Electric Generator ,Domestic Electric Circuit		<b>MCQ(IX)Exp.6</b> To establish the relation between the loss in weight of a solid when fully immersed in Tap Water and Salty Water

September	III Week 10-18	<b>1<sup>st</sup> Terminal Examination</b>			
September	19-28	<b>Autumn Break</b>			
September	29, October 1,3	3	<b>Carbon and its compounds-</b> Bonding in carbon- the covalent bond, versatile nature of carbon Chemical properties of carbon compounds	i. To study the arrangement of atoms in carbon and allotropes of Carbon (Ball& stick model).  ii. To observe the burning of carbon compounds like camphor	

October	I Week 5-9	5	Hydrocarbons and chemicals properties of important carbon compounds-ethanol and ethane acid,		<b>Exp. 13</b> i. To study the following properties of Acetic Acid a) Odour b) Solubility in water c) Effect on litmus d) Reaction with NaHCO <sub>3</sub> .
October	II Week 12-16	5	Soaps and detergents. <b><u>How do organism reproduce</u></b> Modes of reproduction by single organism, variation in off springs, sexual reproduction	i.To show the cleansing action of soaps and detergent ii. To observe formation of mould on bread. iii. To observe different tissues in spirogyra filaments. iv. To observe leaf of Bryophyllum v. To studying sexual reproduction in flowering plants & human beings with the help of chart .	<b>Exp. 14</b>  To study (a) Binary fission in amoeba (b) Budding in yeast with the help of prepared slides. <b>MCQ(IX)Exp.7</b> To measure the temperature of hot water as it cools and plot a temperature- time graph

October	III Week 19-24	6	<b><u>Heredity and Evolution</u></b> Accumulation of variation during reproduction, heredity, Evolution, speciation, evolution and classification, evolution should not be equated with progress	<ul style="list-style-type: none"> <li>i. To study the works of Mendel (1822-1884) on internet.</li> <li>ii. To study the works of Charles Darwin(1809-1882)on internet</li> <li>iii. To Study Homologous organs</li> </ul>	<p><b>Exp.15</b> To determine the percentage of water absorbed by Raisins</p> <p><b>MCQ (IX)Exp.8</b> To determine the velocity of a pulse propagated through a stretched slinky.</p>
October	IV Week 26-30	5	<b>Periodic classification of elements</b> Attempts to classify elements, Mendleef's periodic table, Modern periodic table.	<ul style="list-style-type: none"> <li>i. To study the different classification made by different scientists.</li> <li>ii. To study Mendleef's periodic table &amp; Modern periodic table.</li> </ul>	<p><b>MCQ(IX) Exp.9</b> To prepare temporary mounts of onion peel and human cheek cell</p>
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November	I Week 3-7	5	<b>Sources of energy-</b> Good source of energy, conventional source and non conventional source of energy, environmental consequences of burning of fuels	<ul style="list-style-type: none"> <li>i .List different forms of energy used by us.</li> <li>ii. To learn about different types of power plants.</li> <li>iii. To prepare and study the structure and working of solar cooker &amp; heater</li> <li>iv. To find out how energy sources affect our environment.</li> <li>v. To study the factors</li> </ul>	<p><b>MCQ(IX) Exp. 10</b> To identify Parenchyma and sclerenchyma tissues in plants , striped muscle fibres and nerves cells in animals</p> <p><b>MCQ(IX) Exp. 11</b> To separate the components of a mixture of sand , common salt and Ammonium Chloride by sublimation</p>

				that lead to global warming	
November	II Week 9-13	5	<b>Our Environment</b> Ecosystem – what are its component, food chains and food webs, how do our activities affect the environment	<ul style="list-style-type: none"> <li>i. To collect the waste and categories it into biodegradable and non-biodegradable substances.</li> <li>ii. To design an aquarium and study it.</li> <li>iii. To find out the chemicals responsible for depletion of ozone layer</li> <li>iv. To calculate the amount of waste generated in school and home.</li> </ul>	<b>MCQ(IX)Exp.12</b> To determine the melting point of ice and the boiling point of water

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November	III Week 16-21	6	<b>Management of Natural Resources</b> Need to manage our resources, water for all	<ul style="list-style-type: none"> <li>i. To find out about the international norms to regulate the emission of CO<sub>2</sub>.</li> <li>ii. To find out the extent of pollution of Ganga river.</li> <li>iii. To check the pH of water supply in our</li> </ul>	<p><b>MCQ(IX) Exp.13</b> To test the presence of starch in the given food samples and the presence of Metanil Yellow in daal</p> <p><b>MCQ(IX) Exp.14</b> To study the characteristic of Spirogyra, Agaricus, Moss, Fern, Pinus and an angiospermic plant</p>

				house.	
November	IV Week 23-27	5	<b>Management of Natural Resources</b> Coal and Petroleum and overview of natural resources management	i. To find out about any two forest produce that are basis of an industry ii. To study the rainfall pattern in India. iii .To Study water harvesting system. iv. To find out about Euro I and Euro II norms for emission from vehicles	<b>MCQ(IX) Exp.15</b> To observe and draw the given specimen – Earthworm, cockroach , Bony fish and Birds
December	1-5	5	Revision	Practical Skills	
	7-14	5	Revision	<b>11.12.09 II nd CCEP</b>	
	15-22			<b>Second Terminal Examination</b>	
	23-24	1	Revision		
	25-31		<b>Winter Break</b>		
Jan 2010	1-2	2		Revision	
	4-9	5		Revision	
	11-14	4		Revision	
<b>Jan 15-25 Pre Board Examination</b>					
Jan 27-29				Revision	
Feb 1-6				Revision	
Feb 8-12				Revision	
Feb 15-20				Revision	

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