

**P.M. ENGLISH MEDIUM SCHOOL, DHINOJ**

**Yearly Plan for Standard X**

**Academic Session 2024-2025**

**Subject: Science**

Month	No. of teaching Days	Assessment	Chapter Details	Experiments	Learning Outcomes
APRIL	21		Ch-1 Chemical reactions...(C) Ch-6 Life processes - (B) <b>(Nutrition, Respiration)</b> Ch-10 Light – (P)	To study different types of chemical reactions To prepare a slide of stomata of a leaf. To find the focal length of a convex lens To find the focal length of a concave mirror	<p><b>Chapter 1:</b></p> <ul style="list-style-type: none"> <li>● Students will learn about characteristics of chemical reactions.</li> <li>● Types of chemical reactions:</li> <li>● Combination, Displacement, Double Displacement, OxidationReduction Reactions</li> <li>● Activity Series of metals.</li> </ul> <p><b>Chapter 6 :</b></p> <ul style="list-style-type: none"> <li>● Know the importance of various life processes, like nutrition, respiration, transportation and excretion in plants and animals.</li> <li>● critically analyse the various physiological processes related to plants and animals.</li> </ul>

					<ul style="list-style-type: none"><li>● appreciate the importance of different organs present in various systems and how effectively they collaborate with each other so that different systems can work effectively.</li><li>● Design creative methods to bring a positive change in the life style so as to prevent the various diseases related to various systems.</li><li>● Draw diagrams of various systems.</li></ul> <p><b>Chapter 10 :</b></p> <ul style="list-style-type: none"><li>● Students will be able to apply the laws of reflection.</li><li>● They will be able to draw ray diagrams of image formation by spherical mirrors.</li><li>● To identify the characteristics of the image formed.</li><li>● To explain the difference between convex and concave mirrors.</li><li>● uses of spherical mirrors in day to day life.</li><li>● They will be able to understand the refraction of light.</li><li>● to draw ray diagrams of images through a spherical lens.</li><li>● to differentiate between concave and convex lenses and images formed by them.</li><li>● Students will be able to solve related numerical problems.</li></ul>
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JUNE	16	I Periodic Test (Ch.1,6 & 10)	<p>Ch-1 CONTINUED...(C)  Ch-2 Acids, bases and salts (C)  Ch-6 CONTINUED... (B)  <b>(Transportation and Excretion)</b>  Ch-7 Control and coordi...(B)  Ch-11 Human eye and col...(P)</p>	<p>To show that CO<sub>2</sub> is given out during respiration  To find the pH of the samples using universal indicator  To study the properties of acids and bases  To trace the path of light through a prism  To study light passing through a rectangular glass slab.</p> <ul style="list-style-type: none"> <li>•</li> <li>•</li> <li>•</li> <li>•</li> <li>•</li> </ul>	<p><b>Chapter 2:</b></p> <ul style="list-style-type: none"> <li>• Students will learn about Acid, Bases and Salts</li> <li>• Properties of Acids, Bases and Salts</li> <li>• Indicators: Natural and Synthetic</li> <li>• Strength of acids and bases</li> <li>• Preparation, Properties and Uses of Salts</li> <li>• pH of Salts</li> <li>• Importance of pH in everyday life</li> <li>• Families of Salts</li> </ul> <p><b>Chapter 11</b></p> <ul style="list-style-type: none"> <li>• Students will be able to identify different parts of the eye.</li> <li>• They will be able to clarifying the functions of different parts of the eye.</li> <li>• They will understand the working of eye lens.</li> <li>• defects of the eye and their correction.</li> <li>• Students will understand the refraction through prism.</li> <li>• dispersion of light and its daily life examples.</li> <li>• Students will be able to understand the scattering of light and its examples in daily life.</li> <li>• They will understand the atmospheric refraction.</li> </ul>
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JULY	24		<p>Ch-2 CONTINUED...(C)  Ch-3 Metals and Non-metals (C)  Ch-7 CONTINUED...(B)  Ch-11 CONTINUED...(P)</p>	<ul style="list-style-type: none"> <li>• To observe the action of Zn, Fe, Cu, Al</li> </ul>	<p><b>Chapter 3 :</b></p> <ul style="list-style-type: none"> <li>• Difference between Metals and Non Metals acc to their physical and chemical property</li> <li>• Use of Metal and Non Metals acc to their properties</li> <li>• Reactivity Series</li> <li>• Reaction between metals and nonmetals and formation of Ionic Compounds</li> <li>• Extraction of Metals from ores</li> <li>• Corrosion and its prevention</li> <li>• Alloys and its Uses</li> </ul>
AUGUST	19		<p>Ch-3 CONTINUED...(C)  Ch-8 How do organisms...(B)  Ch-12 Electricity (P)</p>	<ul style="list-style-type: none"> <li>• Identification of the different parts of an embryo of a dicot seed.</li> <li>• To study: (a) binary fission in <i>Amoeba</i> and (b) Budding in yeast with the help of prepared slides.</li> </ul>	<p><b>Chapter 8 :</b></p> <ul style="list-style-type: none"> <li>• Students will understand the process of reproduction in animals.</li> <li>• learn the importance of reproduction for continuity of generation.</li> <li>• Exhibit the different modes of reproduction.</li> </ul>

					<ul style="list-style-type: none"> <li>• Appreciate the importance of the government in banning prenatal sex determination.</li> <li>• Understand the importance of using birth control.</li> <li>• Students will understand about the sexually transmitted diseases and the prevention and control from those diseases.</li> </ul> <p><b>Chapter 12 :</b></p> <ul style="list-style-type: none"> <li>• Students will understand the electric current.</li> <li>• to draw circuit diagrams.</li> <li>• resistance in series and parallel.</li> <li>• They understand the heat produced in the circuit.</li> <li>• They will be able to identify the units of a given quantity.</li> <li>• They will be able to solve numerical problems.</li> </ul>
SEPT	10	<p><b>Term 1</b> (Ch-1,2,3,6,7,8,10,11 &amp; 12)</p>	<p>Ch-4 Carbon and its comp...(C) Ch-9 Heredity (B) Ch-12 CONTINUED...(P)</p>	<ul style="list-style-type: none"> <li>•</li> </ul> <p>Identification of the different parts of an embryo of a dicot seed (Pea, gram or red kidney bean).</p>	<p><b>Chapter 4 :</b></p> <ul style="list-style-type: none"> <li>• Carbon and its compounds are some of our major sources of fuels.</li> <li>• Versatile nature of carbon</li> <li>• Isomerism</li> <li>• Allotropes of carbon</li> <li>• Ethanol and ethanoic acid: Physical and chemical properties and uses.</li> <li>• The action of soaps and detergents is based on the presence of both hydrophobic and hydrophilic groups in the molecule and this helps to emulsify the oily dirt and hence its removal.</li> </ul> <p><b>Chapter 9 :</b></p>

					<ul style="list-style-type: none"> <li>• Students will understand about variations and inherited traits .</li> <li>• Analyse the importance of sexual reproduction as an element of genetic variation.</li> <li>• Study the laws of inheritance given by Mendel.</li> <li>• Understand the concept of Monohybrid and Dihybrid crosses.</li> </ul>
OCT.	18		<p>Ch-4 CONTINUED...(C)  Ch-9 CONTINUED... (B)  Ch-13 Magnetic Effects of...(P)  Ch-15 Our environment (B)</p>	<p><b>Physics:</b></p> <ul style="list-style-type: none"> <li>• To find the equivalent resistance in series</li> <li>• To find the equivalent resistance in parallel</li> <li>• To study the dependence of potential difference across a resistor</li> </ul> <p><b>Chemistry:</b></p> <ul style="list-style-type: none"> <li>• To study properties of ethanoic acid.</li> <li>• To study comparative cleaning of soap in hard and soft water.</li> </ul>	<p><b>Chapter 13</b></p> <ul style="list-style-type: none"> <li>• Recognizing that an electric current produces the magnetic field.</li> <li>• direction of magnetic field by using the appropriate rules.</li> <li>• Force on a current carrying conductor</li> <li>• direction of force by using Fleming's left hand rule.</li> </ul> <p><b>Chapter 15</b></p> <ul style="list-style-type: none"> <li>• Construct food chains and food webs.</li> <li>• Define ecosystem and classify it into biotic and abiotic components</li> <li>• appreciate the role of decomposers in nature.</li> <li>• Understand the 10% law of energy flow and biomagnification.</li> </ul>

NOV.	17	I Prelim Exam	Ch-4 CONTINUED...(C) Ch-13 CONTINUED...(P) Ch-15 CONTINUED...(B)		
DEC.	20				
JAN	18				
FEB	0	II Prelim Exam	<b>REVISION</b>		
March	0				
<b>Total</b>					