

**SCIENCE CURRICULUM
COURSE STRUCTURE(2020-21)**

CLASS X

UNIT NO.	UNIT	MARKS
1	Chemical Substances - Nature and Behaviour	26
2	World of Living	23
3	Natural Phenomenon	12
4	Effects Of Current	14
5	Natural resources	05
	Total	80
	Internal Assessment	20
	Grand Total	100

Chapter No/ (Month.)	Name of chapter	Practical	Methodology	Assessment
Bio: Chapter-I (Feb-March)	<p>World of Living Life processes: (Feb.-March-April) *Learning outcomes* #To interpret terminologies related to "living beings". # To illustrate basic concepts of nutrition, # To categorize types of (Autotrophic and Heterotrophic) nutrition # To describe human digestive system. # To illustrate respiration, # To describe human respiratory system # To categorize transport in plants and humans # To discuss human circulatory system. # To describe and excretion in plants and animals. https://youtu.be/-Bp-b6ANNCw https://youtu.be/wGa9EwniVNC https://youtu.be/OSqhTmiXhVI https://youtu.be/JTIUp0-boQ https://youtu.be/zkS3WAKCUMs https://youtu.be/HtSSk_NZ5WY *** Note-Control and coordination ; covered in April –May Now it is the part of internal assessment only.</p>	<p>1. To show experimentally that carbon dioxide is given out during respiration. https://youtu.be/jBXM6xVb8O4</p>	<p>Discussion/ Explanation through examples/ Video demonstration/ Notes making</p>	<p>Oral Test/ Class test/ Quizzes on google forms/ lab activity through virtual links.</p>

<p>Chem: Chapter-I (March-April)</p>	<p>CHEMICAL SUBSTANCES -NATURE AND BEHAVIOUR</p> <p>CHEMICAL REACTIONS (March-April) Learning outcome: Student able to understand:</p> <ul style="list-style-type: none"> ● To illustrate the Chemical equations with examples ● To Balance chemical equation ● Implicate of a balanced chemical equation ● Categorise Types of chemical reactions like combination , decomposition displacement , double displacement, precipitation , neutralization , oxidation and reduction <p>Links used https://youtu.be/tV0bxq3Dz88 https://youtu.be/_Y7it2DmEIQ</p>		<p>Discussion/ Explanation through examples/ Video demonstration/ Notes making</p>	<p>Oral Test/ Class test/ Quizzes on google forms/ lab activity through virtual links.</p>
<p>Phy: Chapter-I (Feb-June)</p>	<p>Electricity-(Feb-June)</p> <p>Learning outcomes</p> <p>Upon completion of this lesson, students will be able to:</p> <ul style="list-style-type: none"> ● define 'electricity' ● distinguish between static and current electricity ● list the ways we use electricity each day ● experiment with electricity and conductors ● Draw electric circuits and electric symbols. ● Explain effect of electricity ● Create circuits in series, parallel and combination. ● Links to be used ● https://youtu.be/SNIOPxZ-Ev4 ● https://youtu.be/oFTj9LWkmm8 ● https://youtu.be/O8GgRIIB1Yc ● https://youtu.be/r8-RAjL0mrI 	<p>2. To study the dependance of potential difference across a resistor on the current passing through it and determine its resistance also plot graph between V and I.(Experiment already conducted when school were open.)</p>	<p>Discussion / Explanation through examples/ Video demonstration/ Notes making</p> <p>Discussion / Explanation through examples/ Video demonstration/ Notes making</p>	<p>Oral Test/ Class test/ Quizzes on google forms/ lab activity through virtual links. Oral test/ class test Quizzes on google form/ lab activity through virtual links.</p>

Bio: Chapter no. - II June- July	Reproduction: (July-August) Learning objectives # To interpret terminologies related to Reproduction in animal and plants. # To categorize types of modes of reproduction in plants. (asexual and sexual) # To describe human reproductive system. # To make the students to understand about reproductive health. # To analyse need for reproductive health and methods of family planning. # To describe importance of safe sex vs. HIV/AIDS. # To aware students about Child bearing and women's health. https://youtu.be/NuyZL6vHE1E	1.To study (a) binary fission in Amoeba, and (b) budding in yeast with the help of prepared slides https://youtu.be/tZ3OTdInBis	Discussion/ Explanation through examples/ Video demonstration/ Notes making	Oral Test/ Class test/ Quizzes on google forms/ lab activity through virtual links.
Chem: Chapter no. - II May- June	ACIDS , BASES AND SALTS Learning outcomes: Students will be able to <ul style="list-style-type: none"> ● Define acids and bases in terms of H⁺ and OH⁻ ions ● Give examples and uses of acids bases and ● Explain the concept of pH scale by defining it ● Analysing the importance of pH in everyday life ● Illustrate the preparation and uses of sodium hydroxide , bleaching powder, baking soda , washing soda and plaster of Paris LINKS USED https://youtu.be/RwHYLUoO-qS https://youtu.be/kNIYZTC-6jY https://youtu.be/1NunJbe1fho	Experiment: to study the properties of acids and bases by their reaction with 1 litmus solution 2 zinc metal 3 solid sodium carbonate https://youtu.be/FCNYhFyhk3U Experiment: to perform and observe the following reactions and classify them into: <ul style="list-style-type: none"> ● Combination reaction ● Decomposition reaction ● Displacement reaction ● Double displacement reaction 	Discussion/ Explanation through examples/ Video demonstration/ Notes making	Oral Test/ Class test/ Quizzes on google forms/ lab activity through virtual links.

		<ol style="list-style-type: none"> 1) Action of water on quicklime 2) Action of heat on ferrous sulphate crystals 3) Iron Nails kept in copper sulphate solution 4) Reaction between sodium sulphate and barium chloride solutions <p>https://youtu.be/oRNuhlDW3k0</p>		
<p>Chapter no. - II July-August Magnetic effect of current</p>	<p>After the end of this chapter students will be able to:</p> <ul style="list-style-type: none"> • Describe magnetic field and field lines. • Explain magnetic field due to a straight current carrying conductor. • Summarize the factors on which strength and direction of magnetic field around a straight conductor. • State and apply the right hand thumb rule. • Demonstrate magnetic field due to a current through a circular loop. • Analyze the magnetic field pattern around a solenoid carrying current. • Express force on a current carrying conductor in a magnetic field. <p>Links to be used</p> <ul style="list-style-type: none"> • https://youtu.be/MlmQo6grSLY • https://youtu.be/R4ht2RcWVII • https://youtu.be/TNPGiK6izvc • https://youtu.be/v7hWt9F3WcY 	<p>1.To study (a) binary fission in Amoeba, and (b) budding in yeast with the help of prepared slides</p> <p>https://youtu.be/tZ3OTdJnBis</p>	<p>Sttion/ Notes making</p>	<p>Oral Test/ Class test/ Quizzes on google forms/ lab activity through virtual links.</p>
<p>Bio: Chapter no.III/ Aug.-Sept</p>	<p>Heredity Heredity; Mendel's contribution- Laws for inheritance of traits: Sex determination: https://youtu.be/ANZo6PmYPfM</p>		<p>Discussion/ Explanation through examples/ Video demonstration/ Assignment</p>	<p>Oral Test/ Class test/ Quizzes on google forms/ lab activity through virtual</p>

			making	links.
Phy: Chapter3 September	<p>Learning outcomes:</p> <p>After the end of the chapter students will be able to</p> <ul style="list-style-type: none"> ● Define laws of reflection. ● Differentiate between real and virtual image. ● Draw reflected light from spherical mirror ● Describe image formed when light strikes spherical mirror. ● Name terms related to mirror and light. ● Give rules for obtaining image in concave mirror. ● Solve numerical using mirror formulae ● Links of video to be used ● https://youtu.be/Xf_VZ8GxUIY ● https://youtu.be/OrobTDEYs2Mhttps://youtu.be/YFgSHRCRa6k ● https://youtu.be/EwBK_cXUTZI ● https://youtu.be/vysmvom-lvg ● https://youtu.be/gCsoWePrFmI ● https://youtu.be/TwaE8nZMOBw 	<p>***Note – Our environment is now the part of internal assessment.</p>	<p>Discussion/ Explanation through examples/ Video demonstration/ Assignment making</p>	<p>Oral Test/ Class test/ Quizzes on google forms/ lab activity through virtual links.</p>
Chem: Chapter no.III/ July-Aug	<p>METALS AND NON-METALS</p> <p>Learning outcomes:</p> <p>Students will be able to :</p> <ul style="list-style-type: none"> ● Tabulate the properties of metals and non-metals. ● Recall and thereby learn the reactivity series ● Illustrate the formation of ionic compounds ● Explain the properties of ionic compounds 	<p>Experiment: to study the comparative cleaning capacity of a sample of soap in soft and hard water.</p> <p>https://youtu.be/MDRFGyJAuKU</p>	<p>Discussion/ Explanation through examples/ Video demonstration/ Assignment making</p>	<p>Oral Test/ Class test/ Quizzes on google forms</p>

	<p>LINKS USED</p> <p>https://youtu.be/XWjQUgq2u9E</p> <p>https://youtu.be/0MgCeHqgCSQ</p> <p>https://youtu.be/brcNH0wGoRQ</p>			
<p>Chem:</p> <p>Unit - IV (September)</p>	<p>4) CARBON AND ITS COMPOUNDS</p> <p>Learning outcomes:</p> <p>Students will be able to</p> <ul style="list-style-type: none"> ● Describe with examples the covalent bonding in carbon compounds ● Illustrate the versatile nature of carbon ● Defined the homologous series <p>LINKS USED</p> <p>https://youtu.be/ivy6NBCC6to</p> <p>https://youtu.be/McYfCAXB2Jo</p>		<p>Discussion/ Explanation through examples/ Video demonstration/ Assignment making</p>	<p>Oral Test/ Class test/ Quizzes on google forms/ lab activity through virtual links.</p>
<p>Bio:</p> <p>Unit - IV October</p>	<p>Our environment: Eco-system, Environmental problems, Ozone depletion, waste production and their solutions. Biodegradable and non-biodegradable substances.</p>	<p>***Note – Our environment is now the part of internal assessment.</p>	<p>Discussion/ Explanation through examples/ Video demonstration/ Assignment making</p>	<p>Oral Test/ Class test/ Quizzes on google forms/ lab activity through virtual links.</p> <p>Oral Test/ Class test/ Quizzes on google forms</p>

<p>Chem: Unit - V (October - November)</p>	<p>5) PERIODIC CLASSIFICATION OF ELEMENTS</p> <p>Learning outcomes:</p> <p>Students will be able to:</p> <ul style="list-style-type: none"> ● Give reasons how elements are arranged in a periodic table ● See the periodic table and analyse how elements are classified ● Evaluate the physical and chemical aspects for classification of elements ● define the modern periodic law ● recognise that the atomic properties of elements are periodic functions of their atomic number <p>LINKS USED</p> <p>https://youtu.be/bdPzMY5WQL4</p> <p>https://youtu.be/Wfx9LXzEaC8</p>		<p>Discussion/ Explanation through examples/ Video demonstration/ Assignment making</p>	<p>Oral Test/ Class test/ Quizzes on google forms/ lab activity through virtual links</p>
<p>Chapter4October November</p>	<p>Refraction of light</p> <p>After completion of this chapter students will be able to:</p> <ul style="list-style-type: none"> ● Explain cause of refraction. ● Describe why there is a change in speed of light. ● Give effect of refraction of light. ● Define laws of refraction ● Explain and solve numerical related to refractive index. ● Links to be used ● https://youtu.be/O5i3qh6aUvw ● https://youtu.be/v5SuSB_93FM ● https://youtu.be/4l2thi5_84o ● https://youtu.be/nc3ZcrkDIR0 ● https://youtu.be/8EbeqZ4fKc0 ● https://youtu.be/Hnt6pEkcd08 <p>https://youtu.be/e5pKQk4JEao</p>	<p>To determine the focal length of concave mirror.</p> <p>https://youtu.be/I5vpGLI62cg</p> <p>To trace the path of rays of light through glass prism.</p> <p>https://youtu.be/wxHFkwjMfmU</p>	<p>Discussion/ Explanation through examples/ Video demonstration/ Notes making</p>	<p>Oral Test/ Class test/ Quizzes on google forms/ lab activity through virtual links.</p>

***Note- Chapter control and coordination covered in online classes in May-June, 2020 . Now it is not part of syllabus. But this chapter is considered as part of internal assessment.

