

Annual Syllabus
Session: 2022-2023
Class-VIII (LEVEL-2)
Subject: SCIENCE

Chapter No. and Name	Content and its mapping with previous classes	Learning Outcomes	Suggested Activities
FOOD	<p>CLASS-VI</p> <p><u>CH – 9: Living organisms and their surroundings</u></p> <ul style="list-style-type: none"> • Characteristics of the living beings. <p>CLASS-VII</p> <p><u>Ch-1: Nutrition in Plants</u></p> <ul style="list-style-type: none"> • Saprotrophs. • How nutrients are replenished in the soil. <p>CLASS-VIII</p> <p><u>Ch-2 Microorganisms : Friends And Foe :</u></p> <ul style="list-style-type: none"> ❖ Microorganisms ❖ Major groups of microorganisms and their living place ❖ Microorganisms and us ❖ Harmful Microorganisms ❖ Food Preservation ❖ Nitrogen Fixation ❖ Nitrogen cycle 	<ul style="list-style-type: none"> • Identify different types of microorganisms (both unicellular and multicellular) • Classify useful and harmful microorganisms. • Explore the role of micro organisms in life. • Asks questions and lead to investigations like how do vegetables or food items get spoiled. • Investigate various diseases caused by microorganisms (symptoms and its Prevention) • Apply learning of scientific concepts in daily life (what helps in making curd ? how does food go bad ?etc.) • Investigate the use of salt and sugar in preserving Pickles and jams. • To make the students about characteristics of saprotrophs and the types of nutrients within the soil, and characteristics of living beings. 	<ol style="list-style-type: none"> 1. To observe drops of pond water under microscope. 2. Observe the prepared slides of Microorganisms. 3. Pull out a gram/bean plant from the field and to study its root nodules. <p><i>VI-Refer to worksheet no.25-27.</i></p> <p><i>VII-Refer to worksheet no.12-13.</i></p> <p><i>VIII-Refer to worksheet no. 02-13, 23-24</i></p>

<p>MATERIAL</p>	<p>CLASS-VI <u>CH-2: Components of food</u> Test for starch, protein and Fat.(process)</p> <p>CLASS-VII <u>Ch- 5:Acids, Bases and Salts</u> ❖ Acids and Bases ❖ Natural Indicators around us Neutralisation</p> <p>CLASS-VIII <u>CH-4 Materials : Metals and Non-Metals</u> ❖ Physical properties of metals and non-metals ❖ Chemical properties of metals and non-metals ❖ Reaction with oxygen, water acids and bases ❖ Displacement reaction ❖ Uses of metals and non-metals.</p>	<ul style="list-style-type: none"> • Identify and classify materials as metal and non- metals on the basis of their properties. • Write word equation for chemical reactions eg. Reactions of metals and Nonmetals with air ,water ,acids and bases . • Apply learning of scientific concepts in day to day life using appropriate metals and non-metals for various purposes. • To make the students aware about acids, bases, and natural indicators to differentiate between acids and bases. • To make the students aware about fats, proteins, and fats as components of food. 	<ol style="list-style-type: none"> 1. To study the physical properties of metals and non-metals (NCERT Table 4.1 & 4.2) 2. To study the nature of oxides of metals and non-metals. 3. To study displacement reaction. Reaction of metals and non-metals with acids (table 4.5). <p><i>VI- Refer to worksheet no.3-5</i></p> <p><i>VII- Refer to worksheet n.14-17.</i></p> <p><i>VIII:-Refer to worksheet no.14-22</i></p>
<p>HOW THINGS WORK</p>	<p>CLASS-VIII <u>CH-11 Force And Pressure</u> ❖ Force – a push or a pull ❖ Forces are due to an interaction ❖ Exploring forces. ❖ A force can change the state-of motion ❖ Force can change the shape of an object , direction and speed of an object ❖ Contact forces ❖ Non- contact forces ❖ Pressure ❖ Pressure exerted by liquids and gases. Atmospheric pressure</p>	<ul style="list-style-type: none"> • Identify various types of forces by giving examples from daily life. • Understand the reason how force arises due to interaction between two objects. • Investigate the effect of force on speed and direction of moving objects . • Differentiate between contact and non Contact forces. • Identify and demonstrate the relation between force, area and pressure. • Conduct simple investigation to seek answer to queries e.g. Do liquids exert pressure at same depth ? • Investigate to find the reason like what happens when we push or pull any thing? or why needles are made pointed ? 	<ol style="list-style-type: none"> 1. To study various types of forces and their impacts. 2. To study the relation between force and motion in daily life experiences. 3. To observe the forces of attraction and repulsion between two types of a bar magnet. 4. To study the dependence of pressure on area. 5. To study increase in pressure exerted by the liquids at the greater depths. <p><i>Refer to worksheet no.42-44</i></p>

➤ The above content must be completed by 30th September 2022.

➤ Revision of syllabus for Mid Term Examination.

Note: The above said syllabus is for assessment purpose only and remaining topics/chapters may be taught as Subject Learning Enrichment.

MID TERM EXAMINATION

Chapter Name	Content and its mapping with previous classes	Learning Outcomes	Suggested Activities
HOW THINGS WORK	<p><u>CLASS-VI</u> <u>CH – 11*: Light Shadows and Reflection</u></p> <ul style="list-style-type: none"> • Transparent, opaque and translucent objects • What exactly are shadows? • A pinhole camera. • Mirrors and reflections <p><u>CLASS-VII</u> <u>Ch-15: Light</u></p> <ul style="list-style-type: none"> ❖ Light travels along a straight line ❖ Reflection of light. ❖ Right or left, playing with spherical mirrors. ❖ Images formed by lenses. ❖ Sunlight white or coloured. <p><u>CLASS-VIII</u> <u>CH-16 Light</u></p> <ul style="list-style-type: none"> ❖ What makes things visible ❖ Laws of reflection, ❖ Regular and diffused reflection multiple reflection ❖ Reflected light can be reflected again . ❖ Multiple Images ❖ Sunlight-,white or coloured, ❖ What is inside Our Eyes? ❖ (human eye-structure and function) 	<ul style="list-style-type: none"> • To differentiate between regular and irregular reflection. • Conduct simple investigations to seek answer to queries whether angle of incidence is equal angle of reflection ? • Explain the process for the formation of multiple images. • Explain with the help of self drawn labeled diagram the structure of eye. • To make the students aware about path and reflection of light, mirrors, images of lenses and white light. • To revise the topics about transparent, opaque, translucent objects, shadows, pinhole camera etc. 	<ol style="list-style-type: none"> 1.To verify laws of reflection of light. 2.To study the structure of eye with the help of a chart/model. 3.To make your own Kaleidoscope. <p><i>VI:-Refer to worksheet no.16-19.</i></p> <p><i>VII:-Refer to worksheet no.26-31.</i></p> <p><i>VIII:-Refer to worksheet no.25-33</i></p>

	<ul style="list-style-type: none"> ❖ Care of the Eyes ❖ Visually challenged persons can read and write. ❖ What is the Braille system? 		
The World of the Living	<p>CLASS-VI</p> <p><u>CH – 9: Living organisms and their surroundings</u></p> <ul style="list-style-type: none"> ❖ Characteristics of the living beings <p><u>CLASS-VIII</u></p> <p><u>CH-9 Reproduction In Animals</u></p> <ul style="list-style-type: none"> ❖ Modes of reproduction ❖ Sexual Reproduction (male reproductive organs, female reproductive organs and fertilization) ❖ Development of embryo, ❖ viviparous and oviparous animals. ❖ Young to adults ❖ Asexual reproduction by budding and binary fission 	<ul style="list-style-type: none"> • Classify organism based on asexual and sexual mode of reproduction . • Explain process of Reproduction in human and animals. • Identify between viviparous and oviparous animals on the basis of egg laying or baby birth • Explain with the help of self drawn labeled diagram/flow chart of human reproductive organ. To make the students about the characteristics of the living beings. 	<ol style="list-style-type: none"> 1. To study the various modes of asexual reproduction in Hydra and Amoeba (with the help of permanent slides) 2. To study the life cycle of frog/mosquito with the help of a chart/model. <p>VI:-<i>Refer to worksheet no.25, 26, 27.</i></p> <p>VIII:- <i>Refer to worksheet no. 34-41</i></p>
<ul style="list-style-type: none"> ➤ The whole syllabus must be completed by 31 January, 2023. ➤ Revision of syllabus for Annual Examination. ➤ Annual examination will be based on complete annual syllabus. <p>Note: The above said syllabus is for assessment purpose only and remaining topics/chapters may be taught as Subject Learning Enrichment.</p>			
ANNUAL EXAMINATION			