

SUBJECT : SCIENCE
ART INTEGRATED PEDAGOGY
CLASS VII

LIVING SCIENCE: RATNA SAGAR

SUBJECT CORDINATOR-NEERJA BHATNAGAR

MONTH	CHAPTER	SUB TOPICS	LEARNING OBJECTIVES	PRACTICAL /ACTIVITIES	LEARNING OUTCOMES
APRIL	NUTRITION IN PLANTS	Autotrophic mode, Heterotrophic mode, Saprotrophs, Replenishing nutrients	➤ Mode of nutrition ➤ Replenishing of nutrients ➤ Mode of nutrition in animals like Hydra, Amoeba, Frog	Photosynthesis in Plants Test of starch & oil etc.	Students will be able to ➤ Understand various mode of nutrition in plants and animals
	NUTRITION IN ANIMALS	Nutrition in Hydra, Amoeba, Frog			
MAY	STRUCTURE OF MATTER	Elements and compounds, Mixtures, Symbols, Formulae, and chemical equations	➤ Elements, compounds. ➤ Mixtures, Symbols & Formulae ➤ Chemical Equation	Formation of mixture and compound of Sulphur and iron fillings	Students will be able to ➤ Understand the difference between the elements, compounds, and mixtures
	ANIMAL FIBRE	Fiber and its types	➤ Fibers and its types ➤ Properties & uses	To be only discussed in class/ Summer Holiday HW- ACTIVITY BASED LEARNING	Will be able to identify the types of animal fiber

JULY	<p>PHYSICAL AND CHEMICAL CHANGES.</p> <p>HEAT AND ITS EFFECTS</p>	<p>Physical and Chemical Changes, Characteristics of a chemical reaction Types of chemical reactions</p> <p>Heat, Effects of heat, Expansion in solids, liquids and gases Temperature and its measurement</p>	<p>➤ Chemical and physical changes ➤ characteristics of a chemical reaction Types of a chemical reaction</p> <p>➤ Heat and its effects ➤ Expansion in all three states</p>	<p>To provide various examples of day to day activity</p> <p>To observe and understand the use a thermometer and take readings.</p>	<p>Students will be able to understand</p> <p>➤ About the changes taking place ➤ Nothing is permanent as change is the law of nature ➤ Understand how heat flows and its effects</p>
AUGUST	<p>FLOW OF HEAT</p> <p>ACID BASES AND SALTS</p>	<p>Conduction, Convection Radiation.</p> <p>Types of Acids, bases and Salts. and their important properties. Uses of salts</p>	<p>➤ Conduction, convection, and Radiation with their applications.</p> <p>➤ identify the three different substances acid, base and salts on basis of properties.</p>	<p>➤ To observe in day to day -the three process of heat flow</p> <p><u>Activities</u></p> <p>1.To test lemon 2, Soap Water 3.Common salt</p>	<p>Students will be able to Understand and differentiate the three different processes.</p> <p>Students will be able to identify the three different substances acid, base, and salts on basis of properties.</p>

<p>SEPTEMBER</p>	<p>Water</p> <p><u>HALF YEARLY EXAMINATION</u></p> <p>WEATHER, CLIMATE AND ADAPTATION</p>	<p>Water and its conservation</p> <p>Weather, Climate Factors Effecting Weather & climate. Climate & Adaptation of both plants and animals</p>	<p>WATER CONSERVATION</p> <ul style="list-style-type: none"> ➤ Weather and Climate ➤ Factors ➤ Adaptation in animals and plants 	<p><u>ART INTEGRATED ACTIVITY-</u> To Prepare a poster with a strong message of 'Save water Save life'</p> <p><u>ACTIVITY BASED LEARNING</u> Using the Cutting, making collage of different weather patterns</p>	<p>Students will be able to enhance their creative skills and bring in lot of awareness.</p> <p>Students will be aware of types of weather and seasons and enhance their creative skills by activity</p>
<p>OCTOBER</p>	<p>RESPIRATION</p> <p>MOTION AND TIME</p>	<p>Respiration in plants and animals. Respiration in humans and types of respiration</p> <p>Standard units, measurement of time, speed uniform motion, non-uniform motion, distance — time graph.</p> <ul style="list-style-type: none"> ➤ Motion and measurement ➤ Motion and time 	<ul style="list-style-type: none"> ➤ Importance of respiration in plants and animals, humans. ➤ Aerobic and anerobic respiration ➤ Time period of a simple pendulum 	<p>Students will perform few breathing exercises and know their breathing capacity and learn to exhale and inhale fully to improve their health</p> <p>Preparing simple pendulum and understanding the oscillatory motion</p>	<p>Students will be able to</p> <ul style="list-style-type: none"> ➤ Improve their lung capacity ➤ Will help them learn the yogic skill ➤ Help them to understand role of diaphragm ➤ Differentiate between static body and body in motion & Identify types of motion

NOVEMBER	REPRODUCTION IN PLANTS. ELECTRIC CURRENT AND ITS EFFECTS.	Asexual reproduction in plants, vegetative artificial methods sexual reproduction Electric current and circuit, Effects of Electric current, Electromagnet.	<ul style="list-style-type: none"> ➤ Reproduction and its types & importance ➤ Circuit and its components ➤ Electricity and electric currents ➤ Electromagnet 	Spore Formation In Bread (hands on activity) Preparation of an electromagnet.	Students will be able to <ul style="list-style-type: none"> ➤ Identify between asexual and sexual reproduction ➤ Students will learn to hands on activity ➤ Develop Observation Skill
DECEMBER	LIGHT TRANSPORTATION OF MATERIALS IN PLANTS AND ANIMALS	Rectilinear propagation of Light, Reflection of Light, Real and virtual image, Spherical mirrors, Lenses, Spectrum. Transportation of materials in Plants, and in Animals,	<ul style="list-style-type: none"> ➤ Rectilinear propagation of light ➤ Real and virtual images, mirror, lenses ➤ Importance of transportation of materials in 	Find focus and focal length of concave mirror. Find focus and focal length of convex lens. into their favorite object/animal /plant	Students will be able to <ul style="list-style-type: none"> ➤ Know the property of light ➤ Differentiate between mirror and lenses on basis of features Students will be able to

	<u>OUR FORESTS</u>	<p>Excretion in animals and humans. excretory system</p> <p>Forest wealth, Producers, consumers and decomposers, and food chain. Balance In nature</p>	<p>both plants and animals. Excretion and</p> <p>Importance of Forests and its importance, Food chain, Food web forest in our lives</p> <p>➤ MANAGEMENT OF WASTEWATER</p>	<p><u>ART INTEGRATED ACTIVITY</u></p> <p><u>To write a script of a small play on save trees and enact it.(Theatre Skill) OR</u> <u>ART INTEGRATED ACTIVITY-</u> To also write a poem in a lyrical song form This will enhance <u>singing as well as writing skills</u></p>	<p><u>Winter Holiday HW</u></p> <p>➤ Students will learn about the forest value and its importance through art and theatre.</p> <p>➤ Learn writing skills</p>
JANUARY	<p>SOIL</p> <p>Waste -water management</p>	<p>Composition & Formation of soil. Types of soil, Properties Crops and soil.</p> <p>Sewage Treatment. Class reading of chapters water and wastewater management</p>	<p>➤ Soil and its types</p> <p>➤ Properties of soil</p> <p>Crops /soil</p> <p>to learn about the importance of cleaning and recycling wastewater</p>	<p>Water retention capacity of soil. Measuring percolation rate</p> <p>ACTIVITY BASED</p> <p>Activity Preparing a home water filter.</p>	<p>➤ Students will be able to learn about the importance of filtration to procure clean water. Characteristics of soil.</p>

FEBRUARY	REVISION		ANNUAL EXAMINATION		