SUBJECT: SCIENCE ARMY PUBLIC SCHOOL, CHENNAI -2026 ANNUAL LESSON PLAN - 2025

CLASS : 8 SEC: TEACHER'S NAME:

MONTH	NO. OF WORKING DAYS	TOPIC(With Sub-Topics)	NO.OF PERIODS	LEARNING OBJECTIVE	ACTIVITIES
APRIL	20	**Ch-1 Crop production and management** 1.Types of crops 2.Agricultural practices 3. Agricultural implements. 4. Methods of irrigation 5.Animal husbandry.	15	plants and Describes the process of crop rotation to explain ways in which nutrients in soil is replenished. 6. Compare and analyse the traditional and modern methods of irrigation. 7. Elaborate the process of harvesting and Storage of grains. 8. Identify commonly known food items based their sources to define animal husbandry	1.Preparing a table or a chart on different irrigation practices and sources of water in different parts of India. 2. Activity to separate healthy seeds for sowing. 3.Visit a farm, nursery or a garden nearby to gather information on Agricultural Practices-**Holiday Homework**
JUNE	15	**Ch-2 Microorganisms-Friend and Foe** Microorganisms 1.	12	microorganisms in increasing soil fertility and to balance the concentration of nitrogen back in atmosphere.	1.To observe, sketch and study the various microorganisms (bacteria, algae, fungi, and
JULY	18	**Ch 5 - Coal and Petroleum** 1. Coal 2. Petroleum 3.Natural Gas	9	coal to explain that natural resources can be used to obtain useful prodcts other than fuel.	Data collection about pollution check for vehicles in their nearest petrol bunk. Graphical interpretation
		Ch 6 - Combustion and Flame 1. What is Combustion 2. How Do We Control Fire? 3.Types Of Combustion 4. Flame 5.Structure Of A Flame 6. What is a Fuel 7. Fuel Efficiency	9	1. Classify natural resources based on their ability to replenish in order to distinguish between inexhaustible and exhaustible natural resources. 2. Describe the process of formation of coal to explain why coal is an exhaustible natural resources. 3. Classify different constituents of petroleum according to their use in daily life in order to deserve various by products of petroleum. 4. Infer why gas, oil and water are found in particular sequence in location where petroleum is found in order to explain the difference in their densities . 5. List the useful by products after processing coal to explain that natural resources can be used to obtain useful prodcts other than fuel. 1. Explain the process of combustion in order to describe the role of fuel and oxygen in the process as necessary conditions for combustion to take place. 2. Compile and list the commonly known inflammable substances to explain that certain substance catch fire. 3.Define ignition temperature and differentiate between types of combustion to assess rapid, spontaneous combustions and explosion. 4. List the conditions necessary for producing fire to discover how combustible materials can be prevented from catching the fire. 5. Explain the different parts of flame in order to explain why goldsmiths blow the outer zone a flame to melt gold and silver. 6. Compare the calorific value of commonly used fuel to examine fuel efficiency. 7. List harmful by-products of burning fuel to be aware of its harmful effects on individuals and environment.	1.Experiment to show that oxygen (air) is necessary for combustion 2.Make a comparative study of different fuels bases on their calorific value and ignition temperature. Activity to show that the outer zone is the hottest part of candle flame 3. Make a model of fire extinguisher using baking soda and vinegar.
		Ch 7 - Conservation of Plants and Animals **1.**Deforestation and Its Causes 2 Consequences Of Deforestation 3. Conservation Of Forest and Wildlife 4.Biosphere Reserve 5.Flora and Faun 6. Endemic Species 7Wildlife Sanctuary and National Park 8 Red Data Book 9 Migration 10 Recycling Of Paper 11 Reforestation	11	1. List causes of deforestation to reflect on its rampant existence despite forest being essential to life. 2. Describe the process of desertification and droughts to elaborate the consequence of deforestation. 3. List the flora and fauna of various regions to decribe the terms endemic, endangered and extinct species. 4. Interpret the importance of Red Data Book to explain why keeping a track of endangered species is important. 5. List some famous biosphere, wildlife sanctuaries and national parks to describe different mechanisms and measures taken by government to protect and conserve forest and wildlife. 6. Explain recycling and reforestation to describe ways to reduce deforestation.	1.Make a scrap book on Endangered,Extinct and Endemic species in India. 2.Activity to locate the Wildlife Sanctuaries, National parks and Biosphere reserves of one's state on an outline map of India.
AUGUST	21	**Ch 9 - Reproduction in Animals** **1.** Modes of Reproduction 2.Sexual Reproduction 3. Asexual Reproduction	10	1. Differentiate between asexual and sexual reproduction in order to list two modes of reproduction. 2. Differentiate between Internal and External fertilisation in order to describe two modes of fertilisation in animals 3 Classify animals based on their ability to give birth or lay eggs to distinguish between Viviparous and Oviparous animals . 4. Describe process of fertilization to explain Zygote, embryo, and foetus formation to understand how an individual is formed inside mother's womb. 5. Differentiate between sex cells corresponding to parents in order to explain male and female gamete.	1. To Study the Sexual Reproduction in Human beings using Videos and Models 2.Activity to study asexual reproduction in Hydra (budding) and Amoeba (binary fission) using permanent Slides . 3. Model making of Human Male and Female Reproductive Systems.

SEPTEMB	22	**Ch 10 - Reaching the Age of Adolescence** 1. Adolescence and Puberty 2. Changes at Puberty 3. Secondary Sexual Characters 4.Role Of Hormones in Initiating Reproductive Function 5. Reproductive Phase Of Life in Humans 6. How is the Sex of the Baby Determined? 7. Hormones Other than Sex Hormones 8. Role Of Hormones in Completing the Life History Of Insects and Frogs 9.Reproductive Health	12	1. Define adolescence and adolescent age in order to explain changes at puberty. 2. Enumerate different variations that take place in body at puberty to explain the effect of adolescence on changing human body. 3. Explain the effects and functions of hormones in the development of secondary sexual characteristics to illustrate growth during puberty. 4. Describe mensuration, menarche, and menopause to explain the reproductive phase of life in humans. 5. Illustrate the procedure for determining the sex of a baby to establish that sex of child is decided by chromosome from male gamete. 6. Elucidate the need for a balanced diet in order to explain the nutritional needs of adolescents. 7. Identify the harmful consequences of taking drugs to explain why drugs are not a solution to confused and insecure feeling during adolescence	1. Activity to Compare the average rate of growth in the heights of boys and girls with respect to age and predict the height of a boy/girl at the end of growth period and to Plot the data on a graph sheet 2.Collage on importance of balanced diet during the period of adolescence. 3. Paper presentation on reproductive health.
OCTOBER	14	**Ch 11 - Force and Pressure** 1.Force A Push or a Pull 2. Forces are due to an Interaction 3. Exploring Force 4. A Force can Change the State of Motion 5. Force can Change the Shape of an Object 6. Contact Forces 7. Non- Contact Forces 8. Pressure 9.Pressure Exerted by Liquids and Gases 10.Atmospheric Pressure.	10	1. Classify common actions involving motion of objects as push or pull to define the term force. 2. Cite examples where force is being applied to explain that two objects must inteact for force to come into play. 3. Analyse motion of an object when force is applied in same and opposite direction to infer that force in same direction add while forces in opposite directions subtract. 4. Illustrate with examples from daily life where an action causes change in movement or shape with and without contact between two objects in order to define contact and non-contact forces. 5. Predict the motion and changes when force is applied to a body to explain that force can cause change in the state of motion and shape of objects. 6. Derive the formula and calculate pressure for given force applied on a given area to explain the phenomenon of pressure acting on objects in daily life. 7. Discover the direction of pressure applied by liquids when put in a container to infer that liquids exert pressure on walls of container. 8. Demonstrate and calculate the atmospheric pressure exerted due to air column above a given area to establish the atomospheric pressure is exerted without us realising it.	1.Activity to demonstrate that frictional force is a contact force. 2. Activity to demonstrate that Magnetic & electrostatic forces are non-contact forces 3. Activity to show that pressure exerted by water at the bottom of the container depends on the height of its column. 4. Activity to show that pressure exerted by water increases with depth(SUBJECT ENRICHMENT). 5. Activity to show that liquid pressure exerts equal pressure at the same depth. 6.Activity to make a balloon car using air pressure.
	22	**Ch 12 - Friction** Force of Friction 1. Factors affecting Friction 2.Friction: A Necessary Evil 3. Increasing and Reducing Friction 4.Wheels Reduce Friction 5. Fluid Friction	10	1. Analyse situations where resistance is felt while applying force to move a body to explain friction force. 2. Discover the factors that cause friction when two bodies moving relatively to explain why it is easier to move an object on a smooth surface compared to rough surface. 3. Differentiate between static, sliding and rolling friction to formulate strategies to reduce friction. 4. Provide advantages and disadvantages of friction in order to justify friction as necessary evil. 5. Explain why the streamlined body is needed when flying to explain drag caused by air.	1.Activity to study the force of friction depends upon the nature of the two surfaces in contact. 2 Activity to show that rolling friction is less than the sliding friction in magnitude. 3.Activity to test the effect of mass on friction. 4.Demonstration on fluid friction used liquids.
NOVEMBE		**Ch 13 - Sound** 1. Sound is Produced by a Vibrating Body 2. Sound Produced by Humans 3. Sound Needs a Medium for Propagation 4. We Hear Sound through Our Ears 5.Amplitude, Time Period and Frequency Of a Vibration 6. Audible and Inaudible Sounds 7. Noise and Music 8.Noise Pollution	12	1. List examples of body moving in to and fro motion in order to explain vibration. 2. Cite examples where sound travels from one point to another in order to establish that sound needs a medium to propagate. 3. List commonly known musical instruments and identify the parts that vibrate to explain that vibration produce sound. 4. Differentiate between frequency and amplitude to describe factors responsible for loudness and pitch of the sound. 5. List and identify functions of parts of human body that produces sound to explain the process of sound production in humans. 6. Describe the structure and function of an eardrum to explain how humans hear sound. 7. Distinguish betweenthe ranges of audible and inaudible sounds to explain why certain sounds cannot be heard by humans. 8. List the harmful effects of noise pollution to mitigate it.	• Activity to show that sound travels through Solids, Liquids, and gases. • To construct a Toy phone. • Activity to make a Jaltarang which produces Sound of different frequencies(SUBJECT ENRICHMENT) • Activity to demonstrate the functioning of vocal cords. Demonstration of different types of waves using ropes,slinky etc.
DECEMBE	22	**Ch 14 - Chemical Effects of Electric Current** 1. Do Liquids Conduct Electricity 2. Chemical Effects of Electric Current 3 Electroplating	10	1. Distinguish between good and poor conductors of electricity to explain that various materials can conduct electricity under certain conditions. 2. List chemical effects of electricity to establish that electricity causes chemical reactions. 3. Describe the process of electrolysis and electroplating to explain the application of chemical effects of electricity on metals	1. Activity to study the process of Electrolysis and Electroplating. 2. Activity to identify the Positive terminal of the battery. 3. Model making of an Electric Tester (Simple Electric Circuit).

	23	**Ch 15 - Some Natural Phenomena** 1.Lightning 2. Charging by Rubbing 3. Types of Charges and Their Interaction 4.Transfer of Charge 5. The Story of Lightning 6. Lightning Safety 7.Earthquakes	10	1. Analyse if two objects attract or repel each other to establish that similar charge repel while opposite charge attract each other. 2. Cite examples of visible sparks to explain the phenomenon of lightning. 3. Examine the sequence of lightning occuring in clouds to explain the process of electric discharge in nature. 4. Predict how lightning travels from the clouds to ground to describe the measures that must be taken during lightning. 5. Examine the working of electroscope to detect if an object is charged or not to apply the concept of similar charged objects repel each other. 6. Illustrate with a diagram the movement of earth to explain phenomenon of earthquake. 7. Identify and explain Seismic zones around earth to explain why some area are more affected by earthquake than others.	1. Project: To make a report on safety measures to be taken during a thunderstorm, lightning and earthquake. 2. To Experiment with comb and paper to show the positive and negative charge. 3. Discussion on Sparks and on lightning conductor. 4. Activity to show the transfer of charges via electroscope. 5. To prepare a report on the impact of earthquakes on the earth surface and human life Or Model making of Electroscope or Seismograph
JANUARY		**Ch 16 - Light** 1. What makes Things Visible 2. Laws of Reflection 3. Regular and Diffused Reflection 4. Reflected Light Can be Reflected Again 5. Multiple Images 6. Sunlight-White or Coloured 7. What is inside Our Eyes? 8. Care of the Eyes 9. Visually Impaired Persons Can Read and Write 10. What is the Braille System	13	1. Identify and calculate the angles of incidence and reflection of ray of light to illustrate the laws of reflection in real life. 2. Illustrate with a line diagram how images invert when reflecting from a mirror to see the application of the laws of reflection. 3. Distinguish between reflection from rough and smooth surface to differentiate between diffused and regular reflection. 4. Establish that light can reflect multiple time with a set of mirrors by constructing a kaleidoscope. 5. Describe the various parts of human eye and identify their functions to explain how humans see objects in presence of light. 6. Recommend different measures for protecting eyes when a problem is felt to establish the importance of eye care. 7. Describe the braille system to explain how people with visual impairment manage to read and write.	1. Activity to study the nature of image formed in a Plane mirror 2.Activity to study the nature of image formed by Concave & Convex lenses 3. Activity to prove the laws of reflection of light by using plane mirror(SUBJECT ENRICHMENT). 4.Model Making a Kaleidoscope; Observing multiple images formed by mirrors placed at angles to each other. 5.Model making Newton's disc.
FEBRUAR	REVISION				
MARCH	ANNUAL ASSESSMENT				

Signature of the Teacher Signature of the coordinator Signatur of the Principal