P M ENGLISH MEDIUM SCHOOL, DHINOJ Yearly Plan - Grade 8

Academic Session 2024-25

Subject: Science

TERM 1

Month	No. Of Teaching Days	Chapter Details	Experiments	Activity	Field trip	Learning Outcomes
APRIL	21	Ch-1 Crop Production and management Ch-2 Microorganisms: Friend and Foe	Expt.17 – To study different microorganisms through permanent slides.	Ch-1 To separate healthy seeds from the damaged /unhealthy seeds To observe the growth of plant with and without manure & fertilizer Ch-2 1. To grow fungi. 2. Make a list of various types of preservatives used for preserving various food articles in your house.	Shankus Farm	 Chapter 1: Learn to segregate the crops based on their growing seasons. (Kharif and Rabi) Understands the Steps involved in Agriculture Makes efforts to protect the environment by controlled use of pesticides and fertilizers. Applies learning of scientific concepts in increasing crop production. Exhibit creativity in planning and designing the process of cultivation. Chapter 2: Identify various microorganisms and their basic characteristics Classifies useful and harmful microorganisms based on their characteristics. Learn about the importance of preservation of Food products and different techniques. Appreciate the importance of microbes in industries like alcohol, wine, bread, bakery. Realize the importance of microbes in medicine such as antibiotics and vaccines. Illustrates the importance of Nitrogen Fixation in the ecosystem.

JUNE	16	Ch-2 Microorganisms:		Ch 8 To show the effects of force on various objects.	 Chapter 8: Understanding different types of forces and its effects on objects. Differentiate between contact and non-contact forces.
		Ch:5 Conservation of plants and Animals (Project)		Plot the endangered species of plants and animals in the map of India	 Chapter 5: Understand deforestation, afforestation and reforestation. List out the endangered species. Understand the importance of conservation of wildlife. Know about Red Data Book and its advantages. Discuss about the protection of plants and animals for their sustainable future.
SEPTEMBER	10	REVISION Term I (Chapter : 1, 2,3,4,5,8 and 9)	-	-	-
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TERM 2

Ī		No. Of					Learning Outcomes
	Month	Teaching	Chapter Details	Experiments	Activity	Field trip	
		Days					

		Friend and Foe (Continue) Ch 8 - Force and Pressure	Expt 5: To prove that air exerts pressure.	To observe liquid exerts pressure on its depth; on the walls of the container; on height		 Conducts simple investigations to find out do liquids exert equal pressure at the same depth. Understanding Pressure for Gases (Atmospheric pressure) and Liquids. Improve numerical skills using formula for Pressure = Force/Area
JULY	24	Ch:9 Friction	Expt 9:To show that friction produces heat.	Ch:9 To measure magnitude of force using spring balance. To observe the force of friction always opposes the motion. To show rough surface exerts greater frictional force than a smooth surface To show rolling friction is less than the sliding friction.		 Chapter 9: Understanding Friction and its effects. Differentiate between roughness and smoothness of surface. Applies the scientific concept of increasing or reducing friction in daily life. Understanding friction is a boon as well as evil in varied circumstances.
	24	Ch-4 Combustion and Flame	Expt 12: To study various zones of a flame.	Ch-4 To study the condition required for combustion To show that a combustible substance cannot burn below its ignition temperature. To study the structure of flame.		 Study different types of combustion. Find out different methods to control fire. Identify and explain the different zones of candle flame. Explore the characteristics of good fuel. Conduct simple investigation to find out the conditions required for combustion. Constructs a model and explains the working of a fire extinguisher.
AUGUST	19	Ch-3 Coal and Petroleum	Expt15: To show that charcoal forms carbon dioxide on burning.	Ch-3 Report writing on effects of burning of fossil fuels on environment Ch:5	Indora Park	 Chapter 3: Differentiate between exhaustible and inexhaustible natural resources. Learn making use of resources judiciously. Exhibit creativity in planning the use of available resources. Discuss the stories of scientific discoveries of the formation of coal and petroleum

OCTOBER	18	Ch:10 Sound Ch:6 Reproduction in Animals		To study the various modes of asexual reproduction in Hydra and Amoeba (with the help of permanent slides) Activities - NCERT 10.5,10.6,10.8	 Chapter 10: Understanding Sound and oscillations Acquire knowledge that sound amplitude determines loudness, and frequency determines pitch. Understand the propagation of sound. Understand the mechanism of Sound production in Human. Draw and illustrate the diagram of the human ear. Describe how each component of the human ear works.
		Ch:13 Light	Expt16: To study the different parts of human eye.	To make a kaleidoscope, Newton's on disc or a birds cage Extended learning: Report different disasters	 Learn about the discovery of Atmospheric Electricity Explain the causes of lighting and earthquakes and its devastating effects. Applieslearning of scientific concepts regarding safety measures needed to be taken during natural calamities. Constructs the model and explains the working of an electroscope as well as the mechanism of earthing. Chapter 13: Understand Reflection and its types: Regular and Irregular Reflection Measures the angles of incidence and reflection. Explores the laws of reflection. Explain the process of lateral inversion and formation of multiple images. Illustrate human eye & explain the working of human eye. Understand defects related to vision and ways to prevent them. Understand the basics to Braille system.

						 Chapter 6: Comprehend the importance of Reproduction as one of the important characteristics of living organisms. Knows about the organs associated with the male and female reproductive system. Differentiate between oviparous and viviparous animals. Classifies organisms on the base of sexual and asexual reproduction Explain the process and phenomenon of reproduction in humans and other animals
NOVEMBER	17	Ch: 7 Reaching the age of adolescence	·	To study the life cycle of frog/mosquito with the help of a chart/model. To study the position of various endocrine glands in human body Prepare a diet chart for adolescence	Seminar by Doctor	 Chapter 7: Explain the scientific phenomenon of sex determination. Know about different endocrine glands and their function. Learn about changes during puberty. Applying learning of scientific concept in challenging myths and taboos regarding adolescence.
DECEMBER	10	Ch:11 Chemical effects of electric current	Expt 11: To study dry cell. Expt 12: To study the magnetic effects of electric current.	To show that distilled water is poor conductor of electricity. Extended learning: Pg-170 1,2		 Chapter 11: Differentiate between conductors and insulators. Know whether a given solution is conducting electricity using a tester. Explore and study the process of electroplating and its applications. Suggesting ways to cope with environmental hazards during electroplating. Explain the process of chemical effect of electric current.
JANUARY	22	Ch:12 Some natural phenomena (Project)	Expt15: To show refraction through glass slab.	To find the number of images formed on placing two mirrors at different angles.		 Chapter 12: Explain the concept of electric charge and how it gets transferred from one object to another. Discuss the interaction between two charged objects.

FEBRUA	ARY	18	REVISION Term I (Chapters 6,7,10,11,12 and 13)	-	-	-	
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