BISHOP SCOTT BOYS' SCHOOL

C - Curriculum

D - Development &

L - Learning

O - Objectives

7

SCIENCE

BISHOP SCOTT BOYS' SCHOOL

STUDENT CURRICULUM MANUAL

Subject : SCIENCE	**Class : VII**	**Academic Plan : 2025 -26**

Month	Course Description	Learning Outcome	Activity	No. of Periods	Portion for PT & TERM Assessment
April	**Nutrition in plants**	To differentiate between autotrophic and heterotrophic modes of nutrition. To compare different modes of heterotrophic nutrition. To explain photosynthesis and materials required to conduct photosynthesis. To describe the way plants, synthesize proteins.	Grow mold on a food item (e.g.- bread) and observe the fungi under microscope.	8	
	Heat	To define the concept of hot and cold and learn about temperature. To differentiate between different types of thermometers. To apply the knowledge of measuring temperature in day-to-day life. To differentiate and explain the different modes of heat transfer. To understand the application of modes of heat transfer in our daily lives.	To observe the difference between different types of thermometers. To study how laboratory thermometers are used. Classroom activity to demonstrate the 3 modes of heat transfer.	11	

Month	Course Description	Learning Outcome	Activity	No. of Periods	Portion for PT & TERM Assessment
May & June	**Physical and Chemical changes**	To categorize changes into physical and chemical change. To learn some basic elements, compounds and their valencies. To identify chemical changes and their properties. To apply the knowledge of chemical and physical changes in daily life. To learn preventing corrosive chemical changes. To explain the process of crystallization.	To study basic physical changes. To show chemical change form new substances. To show that chemical changes bring change in color. To show chemical change leads to evolution of gas.	13	**PT-1 examination:** 1. Nutrition in Plants and Animals 2. Heat 3. Physical and chemical changes.
	Revision for PT-1 examination	---------	--------	6	

Month	Course Description	Learning Outcome	Activity	No. of Periods	Portion for PT & TERM Assessment
July	**Acid Bases and Salts**	To differentiate between acidic, basic and neutral substances. To describe the properties and uses of acids and bases. To compare synthetic and natural indicators. To apply the knowledge of indicators to test nature of different liquids. To define neutralization reactions. To write word equations for different acid-base reactions To apply the learning of scientific concept of neutralization in day-to-day life.	To study the use of following indicators on different liquids. 1. Litmus solution 2. Phenolphthalein 3. Methyl orange 4. Litmus paper 5. pH paper 6. China rose indicator 7. Turmeric	13	

Month	Course Description	Learning Outcome	Activity	No. of Periods	Portion for PT & TERM Assessment
August	**Nutrition in Animals**	To classify different mode of nutrition in animals. To explain the process of digestion in humans. To illustrate different types of teeth. To explain the process of digestion in ruminants and amoena.	To study the effect of saliva on starch. To draw a well labelled diagram of 1. Human digestive system 2. Process of nutrition in amoeba.	9	
	Motion and Time	To appreciate the evolution of instruments for the measurement of time. To explain the measurement of time using simple pendulum. To describe the working of clocks and watches. To calculate and compare the relationship between distance time and speed. To differentiate between velocity and speed, distance and displacement. To sketch a distance-time graph and calculate speed of an object using data given in the graph.	Compare the timing of 2 boys running at a particular distance and calculate their speed.	13	

Month	Course Description	Learning Outcome	Activity	No. of Periods	Portion for PT & TERM Assessment
September	**Wastewater story**	To highlight the harmful effects of contaminants, present in sewage. To describe the sewerage and wastewater treatment plant. To explain alternative methods of sewage disposal. To outline the importance of sanitation at public places.	Discussion on different factors leading to water pollution and how it is impacting different biotic factors on earth.	6	**Term-1 examination:** 1. Nutrition in Plants and Animals 2. Heat 3. Physical and chemical changes. 4. Acid Bases and salts. 5. Nutrition in Animals. 6. Motion and Time 7. Wastewater story
	Revision for Term-1 exam	--------	--------	4	

Month	Course Description	Learning Outcome	Activity	No. of Periods	Portion for PT & TERM Assessment
October	**Electricity and Circuits**	To draw symbolic representations of an electrical circuit. To construct electric circuit. To differentiate between series and parallel connection. To observe the application of heating effect of electric current in daily life To construct an electromagnet. To explain the working of electric bell.	To construct an electrical circuit To examine the magnetic field produced by current carrying solenoid using magnetic compass.	10	
	Respiration in Organisms	To differentiate between respiration and breathing To explain the mechanism of breathing in human beings. To compare aerobic and anaerobic modes of respiration. To describe the mechanism of respiration in fishes, frogs, insects and earthworm. To explain respiration in	To show that exhaled air contains carbon dioxide.	9	

		plants.			

Month	Course Description	Learning Outcome	Activity	No. of Periods	Portion for PT & TERM Assessment
November	**Transport in Plants and Animals**	To explain the role of circulatory system in an organism. To classify different components of blood. To explain the process of double circulation of heart. To differentiate between arteries and veins. To list major blood vessels entering and leaving the heart To explain the process of excretion in human beings and the role of organs involved. To explain transportation and excretion in plants.	Draw the structure of human heart and label all its parts.	10	**PT-2 examination:** 1. Electricity and Circuits 2. Respiration in Organisms 3. Transport in Plants and Animals.

	Revision for PT-2	----------	----------	1	

Month	Course Description	Learning Outcome	Activity	No. of Periods	Portion for PT & TERM Assessment
December	**Light**	To demonstrate the laws of reflection. To list the properties of image formed by plane mirror, concave mirror and convex mirror. To explain refraction of light. To list the property of images formed by concave and convex lenses. To apply knowledge about different types of mirror and lenses used in day-to-day life. To explain the phenomenon	To study laws of reflection using plane mirror. To study how different lenses converges or diverges the ray of light. To study the difference between concave, convex and plane mirrors. To study dispersion of white light using prism.	16	

		of dispersion of white light			

Month	Course Description	Learning Outcome	Activity	No. of Periods	Portion for PT & TERM Assessment
January	**Reproduction in Plants**	To differentiate between asexual and sexual reproduction To explain various methods of vegetative propagation. To apply the knowledge of vegetative propagation in their own garden. To list advantages and disadvantages of asexual and sexual reproduction. To list different agents of pollination. To explain fertilization and events after fertilization.	Dissection of *Hibiscus rosa sinensis* to study different parts of flower	11	

		To describe various methods of seed dispersal.			
	Forest our Lifeline	To explain the structure of forest. To list the importance of forest and different biotic and abiotic components involved in it. To differentiate between food chain and food web. To explain the consequences of deforestation. To recognize the need to conserve the forest.	Discussion about how prolonged deforestation can be a threat to our planet and life surviving in it.	9	

Month	**Course Description**	**Learning Outcome**	**Activity**	**No. of Periods**	**Portion for PT & TERM Assessment**

February	Revision for Term – 2 examinations.	------	------	11	**Term-2 examination:** 1. Motion and Time 2. Electricity and Circuits 3. Respiration in Organisms 4. Transport in Plants and Animals. 5. Light 6. Reproduction in Plants. 7. Forest our Lifeline.