BISHOP SCOTT BOYS' SCHOOL

STUDENT CURRICULUM MANUAL

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

Month	Course Description	Learning Outcome	Activity	No. of Periods	Portion for PT & TERM Assessment
April	CHAPTER - 7 MOTION	Students will be able to learn : 1. Motion and differentiate between scalar and vector quantities. 2. Uniform and Non uniform Motion 3. Concepts of speed, velocity, and acceleration. 4. Graphical representation (distance-time and velocity-time graphs)	1. Take a meter scale and a long rope. Walk from one corner of classroom to its opposite corner along its sides. • Measure the distance covered by you and magnitude of the displacement. 2. Measuring Motion: Conduct an experiment to measure the speed of a moving object using a ticker timer or mobile application.	**6**	
	CHEMISTRY CHAPTER -1 MATTER IN OUR SURROUNDINGS	Students will be able to learn ; 1. What is matter? 2. What is matter made up of? 3. Characteristics of particles of matter	1. Showing through an activity how small the particles of matter are 2. Showing through an activity particles of matter has space in between them	6	
	CHAPTER - 5 FUNDAMENTAL UNIT OF LIFE.	1. To Understand cell as a basic unit of life; 2. What are living organisms made up of? 3. What is cell made up of ? 4. What is the structural organisation of a cell ?	Preparation of stained temporary mount of (a)onion peel be human cheek cells and to record observations and draw their labelled diagrams. Demonstration of osmosis with	6	

		5. prokaryotic and eukaryotic cells 6. multicellular organisms; cell membrane and cell wall,	raisins or apricot and potatoes. Find out about electron microscope from the resources in the school library or through the internet. Discuss it with your teacher.		
Month	**Course Description**	**Learning Outcome**	**Activity**	**No. of Periods**	**Portion for PT & TERM Assessment**
May	CHAPTER - 7 MOTION	5. Derivation of equations of motion by graphical method. 6. Uniform Circular motion 7. Distinction between uniform linear motion and uniform circular motion	3. Graph Interpretation: Plot distance-time and velocity-time graphs using real-life examples. 4. Take a piece of thread and tie a small piece of stone at one of its ends. Move the stone to describe a circular path with constant speed by holding the thread at the other end.	3	
	CHEMISTRY MATTER IN OUR SURROUNDINGS	3. States of matter and their properties 4. Evaporation and its application	Showing through an activity the force of attraction between the particles of matter	4	
	CHAPTER- 5 FUNDAMENTAL UNIT OF LIFE.	1. To understand cell organelles and cell inclusion; chloroplast, mitochondria, vacuoles, endoplasmic reticulum, Golgi apparatus; nucleus, chromosome- basic structure, number.	Study of effect of hypertonic solution on living and dead cells of Rheo leaf respectively.	5	

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June	CHAPTER - 8 FORCE AND LAWS OF MOTION	Students will be able to learn : 1. Balanced and unbalanced forces with examples. 2. Definition and application of Newton's laws of motion. 3. Definition inertia and its types. 4. Solve numerical problems based on force, mass, and acceleration.	1. Inertia Demonstration: Perform a tablecloth experiment to demonstrate inertia. 2. Action-Reaction Experiment: Balloon rocket experiment to explain Newton's third law. 3. Problem Solving: Solve numerical problems and case studies based on real-life applications.	6	
	CHEMISTRY CHAPTER – 2 IS MATTER AROUND US PURE	Students will be able to learn : 1. Mixtures and types of mixtures 2. Solutions, suspension and colloids 3. Different types of separation techniques	1. Showing through an activity of mixtures can be separated through the process of filtration 2. Showing through an activity the difference between saturated and unsaturated solution	6	
	CHAPTER 6 - TISSUES	To know that plants and animals made of same types of tissues ? To know Plants Tissues To know Meristematic Tissue (apical meristem, Intercalary meristem, lateral meristem)	Growth of roots in onion bulbs. Observation of various kind of cells and their arrangement.	4	

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July	PHYSICS	REVISION			**PT-1 examination:** CHAPTER – 1 : MATTER IN OUR SURROUNDINGS CHAPTER – 5 : FUNDAMENTAL UNIT OF LIFE CHAPTER - 7 : MOTION (TILL ACCELERATION)
	CHEMISTRY	REVISION			
	CHAPTER – 6 TISSUES	To know about Permanent Tissue (i) Simple Permanent Tissue (ii) Complex Permanent Tissue To know about Animal Tissues Epithelial Tissue Connective Tissue	Observation of outermost layer of cells called epidermis with the help Rhoeo leaf. Identification of parenchyma collenchyma and sclerenchyma tissue in plants from prepare slides. Draw their labeled diagram.	8	
August	CHAPTER - 9 GRAVITATION	Students will be able to learn : 1. Universal law of gravitation and its applications. 2. Derivation of equations for acceleration due to gravity. 3. Concept of free fall and weightlessness. 4. Mass, weight, and their differences. 5. Relation between Weight of an object on the moon and on the Earth	1. Gravitational Attraction: Use a simple pendulum to study gravitational force. 2. Free Fall Observation: Drop different objects from the same height and record time taken to hit the ground. 3. Case Study: Discuss real-life applications like satellites and space travel.	6	

	CHEMISTRY	3. Properties and differences between pure substances and mixtures 4. Classification of pure substances : Element and Compounds		8	
	CHAPTER – 6 TISSUES	To know about Muscular Tissue and Nervous Tissue	Identification of striped, smooth and cardiac muscle fibers and nerve cells in animals from prepaid slides. Draw their labeled diagrams.	8	
Month	**Course Description**	**Learning Outcome**	**Activity**	**No. of Periods**	**Portion for PT & TERM Assessment**
September	PHYSICS	REVISION			**TERM -1 EXAMINATION** CHAPTER – 1 MATTER IN OUR SURROUNDINGS CHAPTER – 2 IS MATTER AROUND US PURE CHAPTER 5 - FUNDAMENTAL UNIT OF LIFE CHAPTER - 6 TISSUES CHAPTER - 7 MOTION CHAPTER – 8 FORCE AND LAWS OF MOTION
	CHEMISTRY	REVISION			
	BIOLOGY	REVISION			

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October	CHAPTER - 9 GRAVITATION	Students will be able to learn : 6. Thrust and Pressure 7. Pressure in fluids 8. Buoyancy 9. Why objects float or sink when placed on the surface of water? 10. Archimedes' Principle 11. Density and relative density		5	
	CHEMISTRY CHAPTER – 3 ATOMS AND MOLECULES	Students will be able to learn: 1. Laws of chemical combination 2. Daltons Atomic Theory, concept of atoms and molecules		6	
	CHAPTER 12 - IMPROVEMENT IN FOOD RESOURCES	To know about need of food Improvement in crop yields Crop variety improvement Factors for which variety improvement is done in crops Crop production management Nutrient management	Nutritional values of animal products.	5	

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November	CHAPTER - 10 WORK AND ENERGY	Students will be able to learn : 1. Definition of work and conditions for work done. 2. Understand and apply the concept of energy and its forms.	1. Work Done Experiment: Using force meters. 2. Energy Conversion Demonstration: Demonstrate mechanical energy conservation using a pendulum.	6	
	CHEMISTRY CHAPTER – 3 ATOMS AND MOLECULES	Students will be able to learn: 3. How to write the chemical formula 4. What is molecular mass and mole concept		6	**PT-2 EXAMINATION** CHAPTER – 3 ATOMS AND MOLECULES CHAPTER – 9 GRAVITATION CHAPTER 12-IMPROVEMENT IN FOOD RESOURCES (Up To-Crop Protection Management)
	CHAPTER - 12 IMPROVEMENT IN FOOD RESOURCES	To know about Manures , Fertilizers, Irrigation Cropping pattern & crop protection management		8	
December	CHAPTER - 10 WORK AND ENERGY	3. Energy transformations 4. The law of conservation of energy 5. Power and its units.	3. Real-Life Examples: Group discussion on energy conservation in daily life. 4. Calculate the electrical bill of your house for a month of 30 days @ 8 Rs./ unit.		
	CHEMISTRY CHAPTER - 4 STRUCTURE OF ATOM	Students will be able to learn : 1. Discovery of electron, proton, neutron 2. Thomson model of atom 3. Rutherford scattering experiment		8	

	CHAPTER 15 - IMPROVEMENT IN FOOD RESOURCES	To understand storage of grains, animal husbandry, cattle farming, poultry farming		8	
Month	Course Description	Learning Outcome	Activity	No. of Periods	Portion for PT & TERM Assessment
January	CHAPTER - 11 SOUND	Students will be able to learn : 1. Production and propagation of sound. 2. Types of Waves 3. Concept of frequency, amplitude, and wavelength. 4. Characteristics of Sound Wave 5. Reflection of sound and its applications (echo, Reverberation and SONAR). 6. Range of hearing 7. Applications of Ultrasound Waves 4. Structure and functioning of the human ear.	1. Sound Wave Demonstration: Use tuning forks to visualize sound waves in water. 2. Take two identical pipes. You can make the pipes using chart paper. The length of the pipes should be sufficiently long as shown. • Arrange them on a table near a wall. • Keep a clock near the open end of one of the pipes and try to hear the sound of the clock through the other pipe. • Adjust the position of the pipes so that you can best hear the sound of the clock. • Now, measure the angles of incidence and reflection and see the relationship between the angles.	6	

	CHEMISTRY CHAPTER – 4 STRUCTURE OF AN ATOM	Students will be able to learn : 3. Bohr's Atomic Model 4. Concept of Valency, Atomic Number, Mass Number, Isotopes and Isobars		6	
	CHAPTER 15 - IMPROVEMENT IN FOOD RESOURCES	To understand egg and broiler production , fish production (i) Marine fisheries (ii) Inland fisheries Bee-keeping			
February	PHYSICS	Revision for Term – 2 examinations.			**TERM-2 EXAMINATION:** CHAPTER –1 MATTER IN OUR SURROUNDINGS CHAPTER –2 IS MATTER AROUND US PURE CHAPTER –3 ATOMS AND MOLECULES CHAPTER –4 STRUCTURE OF ATOMS CHAPTER - 5FUNDAMENTAL UNIT OF LIFE CHAPTER- 6 TISSUE CHAPTER –7 MOTION CHAPTER –8 FORCE AND LAWS OF MOTION CHAPTER – 9 GRAVITATION CHAPTER – 10 WORK AND ENERGY CHAPTER – 11 SOUND CHAPTER- 12 IMPROVEMENT IN FOOD RESOURCES
	CHEMISTRY	Revision for Term – 2 examinations.			
	BIOLOGY	Revision for Term – 2 examinations.			