ASCOT HIGH SCHOOL

SCIENCE DEPARTMENT

GRADE 9 PHYSICS

Duration	Topic	Sub-Topic	Specific Objectives	Assignments/Projects
September 1-12 Orientation Activities & Diagnostic Test				
Sept. 15-Oct.3	Mechanics	Introduction to Measurement	Students should be able to: 1. Define measurement and explain its importance to Physics. -Students brainstorm "Why do we measure objects?"	
		Basic and Derived Units	1. Formulate a definition for the term fundamental quantities. 2. Tabulate the fundamental quantities (mass, length, time, current, temperature, amount of substance and luminous intensity) base unit and symbols. **Video Link:** **https://www.youtube.com/watch?v=O8oZFaaJTUc** 3. Formulate a definition for derived quantities, units and symbols. **Video Link:** https://www.youtube.com/watch?v=thN4frMpopM	

			4. Tabulate derived quantities such as speed, force with units and symbols. 5. Express the result of a measurement or calculation to an appropriate number of significant figures. 6. Discuss why scientists use standard form and prefixes. 7. Tabulate prefixes such as milli, centi, kilo, mega with symbol. 8. Perform conversions of units for mass and length.	**Worksheet on Significant Figures & Conversions (10%)**
Oct. 6-17		Types and Sources of Errors	1. Discuss possible types and sources of error in any measurement. -Include those made with digital instruments, and ways of reducing such errors. **Video Link**: https://www.youtube.com/watch?v=huDRfgbc1HA&t=2s https://www.youtube.com/watch?v=evIa9edpJ6k&t=15s https://www.youtube.com/watch?v=DBDl6OOxyck	Class Discussion on Types and Sources of Errors. **Quiz on Basic Units, Derived Units & Errors (10%)-Oct. 22, 2025**

MID-TERM BREAK *SESSIONAL TEST ONE (20%)*				
Duration	**Topic**	**Sub-Topic**	**Specific Objectives**	**Assignments/Projects**
Nov. 3-28	Mechanics	Instruments	1. Use a variety of instruments to measure different quantities. -Measurement should include 1. Length-rulers, vernier calipers, micrometer screw guage; units 2. Mass- balances; units 3. Time-clocks, stop clocks or watches; units 4. Volume-measuring cylinder;units **Video Links** https://www.youtube.com/watch?v=2wuHY6RwnEo https://www.youtube.com/watch?v=zz-cVbstGo0 2. Assess the suitability of instruments on the basis of sensitivity, accuracy and range. -Similar instruments should be compared in the discussion. 3. Apply the formula for density: p=m/v -Deduce units.	**Worksheet on Instruments (10%): Nov. 17, 2025** **Practical Activity (20%)** **Determine the density of regular and irregular solids and a liquid.**
END OF YEAR EXAMINATION				