

YEAR 13 A/ B –PHYSICS

WEEK 8 (18th Oct to 22nd October) 3 lessons for both batches

Work sent to the students through: Google classroom / Zoom Learning Platform

Topic: Thermodynamics

Date & class	Lesson	Lesson objectives & Learning outcome	Mode of teaching	
19 th Oct Monday – 13 B	6	Learning objectives: Solve numerical questions to reinforce the concepts of specific heat capacity and latent heat.	Zoom	Teacher uses power point presentation and breakout sessions for students to collaborate and attain the objectives.
20 th Oct Tuesday – 13 A	4	Learning Outcomes : Complete the questions from the worksheet file-		
19 th Oct Monday – 13 B	7	Learning objectives: Reinforce how conservation of energy is used in calorimetry to identify the specific heat capacity of materials.	zoom	Teacher uses power point presentation and breakout sessions for students to collaborate and attain the objectives.
22 nd Oct Thursday – 13 A	1	Learning Outcomes : Be able to identify what gains heat and what loses heat in any calorimetry experiment. Use the experimental data to find the specific heat of an unknown metal and research to identify the metal. Apply the first law of thermodynamics $heat\ lost + heat\ gained = 0$ to calorimetry experiments including phase change		
21 st Oct Wednes day – 13 B	3	Learning objectives: Discuss the properties of ideal gas	Zoom	Teacher uses Google Classroom and breakout sessions in Zoom for students to collaborate and attain the objectives.
22 nd Oct Thursday – 13 A	2	Revisit the Gas laws Learning Outcomes : <ul style="list-style-type: none"> • State Boyle’s law, Pressure law and Volume law; select and apply $PV/T = constant$ • Investigate relationship between P & T • Investigate the relationship between P and V • State ideal gas equation. • Select and solve problems using the ideal gas equation expressed as $pV = nRT$, where N is the number of atoms and n is the number of moles. 		

YEAR 13 A/ B –PHYSICS

WEEK 8 (18th Oct to 22nd Oct) - 3 lessons for both batches

Work sent to the students through: Whatsapp group / Google classroom / Zoom Learning Platform

Topic: - 7.2 – Capacitors / Magnetic fields

Resources: Student text book, interactive power point, Board works, worksheet file and online videos/animations

Date	Lesson	Lesson objectives & Learning outcome	Mode of teaching	
19 th Oct Monday - 13 A	1	<i>Carry forward from last week</i> L.O - Show an understanding of the functions of capacitors in simple circuits	Zoom	Students research on the uses of capacitors and appreciate that the device acts a store of charge (and hence energy)
20 th Oct Tuesday - 13 B	6	Learning outcomes- Understand that capacitors are helpful in various practical uses for certain functions. These functions can include: <ul style="list-style-type: none"> o blocking of direct currents o smoothing of rectified alternating currents o time delays in electronic circuits o defibrillators 		
19 th Oct Monday - 13 A	2	L.O – Compare capacitor discharge with radioactive decay.	Zoom	Teacher uses boardworks & power point presentation to explain the concepts and guide students to drive the equation for half-life for capacitor discharge.
22 nd Oct Thursday - 13 B	3	Learning outcomes- <ul style="list-style-type: none"> • Derive and use the equation for half-life • $t_{1/2} = \ln 2 \times RC$. • Compare Capacitor discharge and radioactive decay and capacitors and springs. 		
20 th Oct Tuesday - 13 A	5	L.O – Understand about magnetic field patterns and lines of flux.	Zoom	Teacher remind students of gravitational fields and electric fields.
22 nd Oct Thursday - 13 B	4	Learning outcomes- <ul style="list-style-type: none"> • Define magnetic field • Explain the significance of the directions of magnetic field lines. • Draw the shape of magnetic field lines around a permanent magnet, attracting and repelling magnets. 		

