## YEAR 13A/ B – PHYSICS

WEEK 9 (25<sup>th</sup> Oct to 28<sup>nd</sup> October) 3 lessons for both batches

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

## **Topic: Thermodynamics**

Date	Class	Lesson	Lesson objectives &	Mode of	
			Learning outcome	teaching	
26 <sup>th</sup> Oct Monday	13 B	6	Learning outcome Learning objectives: Discuss the properties of ideal gas Revisit the Gas laws Learning Outcomes : State Boyle's law, Pressure law and Volume law; select and apply PV/T = constant Investigate relationship between P and T Investigate the relationship between P and V	Zoom	Teacher uses power point presentation and breakout sessions for students to collaborate and attain the objectives.
26 <sup>th</sup> Oct Monday	13 B	7	between P and V Learning objectives: State ideal gas equation. Learning Outcomes : Solve problems using the ideal gas equation expressed as pV = nRT, State that $6.02 \times 10^{23}$ /mol is the Avogadro constant N <sub>A</sub> Define Boltzmann constant as R/ N <sub>A</sub> Use the expression pV = NkT as the equation of state for an ideal gas.	zoom	Teacher uses power point presentation and breakout sessions for students to collaborate and attain the objectives.

27 <sup>st</sup> Oct Tuesday	13 A	4	Assessment- 2 Topics		Teacher gives
<b>28<sup>th</sup>Oct</b> Wednesday	13 B	3	Unit 9.1-1- Heat and Temperature Unit 9.1-3- Heat transfer	zoom	the assessment in Google forms.

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## **Topic: - 7.3 – 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	
26 <sup>th</sup> Oct Monday - <b>13 A</b>	1	<i>Carry forward from last week</i> <b>L.O</b> – Understand about magnetic field patterns and lines of flux.	Zoom	Teacher remind students of gravitational fields and electric
27 <sup>th</sup> Oct Tuesday - 13 B	6	<ul> <li>Learning outcomes-</li> <li>Define magnetic field</li> <li>Explain the significance of the directions of magnetic field lines.</li> <li>Draw the shape of magnetic field lines around a permanent magnet, attracting and repelling magnets.</li> </ul>		fields. Discussion on drawing field lines with magnets and compass.
26 <sup>th</sup> Oct Monday - <b>13 A</b>	2	<b>L.O</b> – Understand that a magnetic field is an example of a field of force produced either by current-carrying conductors or by	Zoom	Teacher uses boardworks & power point presentation to

		<ul> <li>permanent magnets</li> <li>Learning outcomes- <ul> <li>Discuss experiment making an electromagnet and investigating the factors affecting its strength.</li> <li>Draw field lines for current carrying straight conductors, loop of wire and solenoid.</li> <li>Demonstrate with iron filings or plotting compasses the magnetic fields around current carrying conductors. (video)</li> </ul> </li> </ul>		explain the concepts and guide students to draw field lines for current carrying conductors.
27 <sup>th</sup> Oct Tuesday - <b>13 A</b>	5	<ul> <li>L.O – Explore and use the terms magnetic flux density B, flux Φ and flux linkage NΦ</li> <li>Learning outcomes-</li> <li>Define magnetic flux and its unit weber.</li> <li>Define magnetic flux density</li> <li>Use the equation for magnetic flux</li> <li>φ = BA cos θ</li> <li>Define Flux linkage of a coil =N φ</li> </ul>	Zoom	Teacher uses boardworks & power point presentation to explain the concepts of magnetic flux density.