

## YEAR 12 A/ B –PHYSICS

**WEEK 3 (13<sup>th</sup> September to 17<sup>th</sup> September) 3 lessons for both batches**

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

**Topic:** \_Fluid Mechanics

**Lesson Objective:** Discuss viscous drag

**Resources:** Student text book, worksheet file, interactive power point from Board works and Online animations

Date	Class	Lesson	Lesson objectives & Learning outcomes	Mode of teaching	
13 <sup>th</sup> Sept Sunday	12 A	8	<p><b>L.O-</b> Recap and use the equation for viscous drag Derive the equation for terminal velocity...(continued from last week)</p> <p><b>Learning outcomes-</b> Be able to draw force diagrams for different parts of the velocity–time graph. Introduce the idea of ‘terminal velocity’. Calculate the gradient and then identify that it equals <math>\frac{x}{\text{viscosity}}</math> where the value of <math>x</math> is provided.</p>	<b>Zoom</b>	Teacher uses interactive power point presentation ,breakout session in zoom app and mentimeter quiz to check their understanding
15 <sup>th</sup> Sept Tuesday	12 B	6			Test dates to be given for next week. 12 A -20/9/2020-Sun 12 B-22/9/2020- Tue
14 <sup>th</sup> Sept Monday	12 A	1	<p><b>Learning objectives:</b> Discuss about the investigation - falling ball in a fluid</p> <p><b>Learning Outcomes :</b></p> <ul style="list-style-type: none"> <li>• Calculate mean values for the terminal velocity of each ball from sample data.</li> <li>• Explain why you would not use light gates to measure the time.</li> <li>• Sometimes the balls fall close to the wall. Comment on the effect that this will have on the measurements.</li> <li>• Explain why larger diameter balls fall faster..</li> </ul>	<b>Zoom</b>	Teacher uses interactive power point presentation and breakout sessions for students to collaborate and attain the objectives.
17 <sup>th</sup> Sept Thursday	12 B	3			Reading material given on <b>BERNOULLI PRINCIPLE</b>

14 <sup>th</sup> Sept Monday	12 A	2	<p><b>Learning objectives:</b></p> <ul style="list-style-type: none"> <li>• Use the given worksheet to solve numerical problems.</li> </ul> <p><b>Learning Outcomes :</b></p>	GC	Teacher uses interactive power point presentation and breakout sessions for students to collaborate and attain the objectives.
17 <sup>th</sup> Sept Thursday	12 B	4	<ul style="list-style-type: none"> <li>• Recognise and make use of appropriate units in calculations.</li> <li>• Use the equation weight – drag – upthrust = 0</li> <li>• Substitute numerical values into algebraic equations using appropriate units for physical quantities.</li> </ul>		Research given on THIXOTROPY

## YEAR 12 A/ B –PHYSICS

**WEEK 3 (13<sup>th</sup> Sept to 17<sup>th</sup> Sept) - 3 lessons for both batches**

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

**Topic: Velocity and acceleration**

**Resources:** Student text book, worksheet file, interactive power point from Board works and Online animations

Date	Class	Lesson	Lesson objectives & Learning outcomes	Mode of teaching	
13 <sup>th</sup> Sept Sunday	12 B	6	<b>L.O</b> – Use estimates of physical quantities to solve problems.	<b>Zoom</b>	Teacher uses power point presentation to explain the concepts and guide students to solve problems.
15 <sup>th</sup> Sept Tuesday	12 A	4	<b>Learning outcomes-</b> <ul style="list-style-type: none"> <li>• Make reasonable estimates of physical quantities.</li> <li>• Use the estimated values to solve Fermi questions.</li> </ul>		
13 <sup>th</sup> Sept Sunday	12 B	7	<b>L.O</b> – Explain the distinction between scalar and vector quantities.	<b>Zoom</b>	Teacher uses interactive power point presentation to explain the concepts.
17 <sup>th</sup> Sept Thursday	12 A	1	<b>Learning outcomes-</b> <ul style="list-style-type: none"> <li>• Understand the meaning of the terms scalar and vector.</li> <li>• Discuss with reference to distance and displacement, speed and velocity.</li> <li>• List several quantities and include whether they are scalar or vector.</li> </ul>		
16 <sup>th</sup> Sept Wednesday	12 B	3	<b>L.O:</b> Define acceleration. Calculate values using equations for velocity and acceleration	<b>Zoom</b>	Students discuss and solve textbook questions – Pg 17
17 <sup>th</sup> Sept Thursday	12 A	2	<b>Learning outcomes-</b> Draw out the difference between distance and displacement, speed and velocity.		

			Calculate average speed, velocity, speed and acceleration using equations		
--	--	--	---	--	--