YEAR 12A/ B –PHYSICS

WEEK 9 (25th October to 28th October)

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

Topic: Electrical quantities

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	
25th Oct Sunday	12 A	8	**Learning objectives:** Identify the factors on which resistance of a wire depends **Learning Outcomes :** Realise that resistance of a wire is directly proportional to its length and inversely proportional to its area of cross section. Realise that the resistance depends on the material. **Define resistivity of a material & Recognize resistivity as the property of a material** Do **a few** numerical questions using expression $\rho = RA/l$	**ZOOM**	Teacher uses power point presentation and breakout sessions for students to collaborate and attain the objectives.
26th Oct Monday	12 A	1	**Learning objectives:** Design an experiment to determine the resistivity of with wires of different lengths. **Learning Outcomes :** Choose the appropriate apparatus required to measure resistance, diameter and length of a thin metal wire.	**ZOOM**	Teacher uses power point presentation and breakout sessions for students to collaborate and attain the objectives.

			Identify the dependent variable, independent variable and control variables to make it a fair test Investigate the relationship between length and resistance of a wire. Use given data to draw resistance against length graph. **Higher:** Use the gradient of the R-l graph to determine resistivity. Resistivity = gradient x Area of cross section $\pi d^2/4$		
26th Oct Monday **27th Oct** Tuesday	**12 A** **12 B**	2 6	**Learning objectives:** Design an experiment to determine the resistivity of with wires of different diameters using the simulation http://phet.colorado.edu/en/simulation/resistance-in-a-wire **Learning Outcomes :** **Identify the dependent variable, independent variable and control variables to make it a fair test** Investigate the relation between diameter/ area of cross section and resistance of a wire. Draw Resistance against 1/area of cross section graph. **Higher:** Use the gradient of the R-1/A graph to	**GC**	Teacher GIVES INSTRUCTIONS in GC to complete the work HW from worksheet file.

			determine resistivity Resistivity = gradient / length		

YEAR 12 A/ B – PHYSICS

WEEK 9 - (25th Oct to 29th Oct) - 3 lessons for both batches

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

Topic: 2.13/ 2.17 Adding forces and Resolving vectors
      2.18 Projectiles

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	
25th Oct		**L.O –** Solve problems on combining two or more vectors by drawing, and two		Students will work

Sunday - **12 B** **27th Oct -12A**	6 3	perpendicular vectors by calculation. **Learning outcomes-** • Recall adding two vectors by constructing an appropriate scale drawing and calculate the resultant of two perpendicular vectors such as displacement, velocity and force. • Recall and use a vector triangle or parallelogram law to determine the resultant of two coplanar vectors such as displacement, velocity and force	**Zoom**	out problems to add two vectors by constructing an appropriate scale drawing and calculate the resultant of two vectors.
25th Oct Sunday - **12 B**	7	**L.O** –Solving problems on resolving a vector into two components at right angles to each other by drawing and by calculation **Learning outcomes-** • Appreciate the use of scale diagram to find the resultant of two vectors • Recall that any vector can be split into two components at right angles to each other • Calculate the values of the component vectors in any such right-angled pair	**Zoom**	Students will solve problems to calculate the values of the component vectors by splitting the vector into two components at right angles to each other
28th Oct Wednesd ay -**12 B**	3	**L.O :** Understand how to make use of the independence of vertical and horizontal motion of an object projected from a height **Learning outcomes-** • Derive expressions for time of flight, range and maximum height. • Calculate the height and range by using equations of motion for vertical and horizontal projection. • Describe and explain the effect of external forces on each component	**Zoom**	Teacher illustrates how the vertical and horizontal components are varying as a body is projected horizontally. Presents how to calculate the height and range by using equations of motion for vertical and horizontal projection.