YEAR 12 A/ B –PHYSICS

WEEK 5 (27th Sept to 1st October) - 3 lessons for both batches

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

Topic: Solid Materials

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	
27th Sept Sunday **29th** Sept Tuesday	**12 A** **12 B**	8 6	**Learning objectives**: Use the given worksheet to solve numerical problems. **Learning Outcomes** : Identify the gradient of F-e graph as force constant.- *RECAP* Estimate as well as Calculate the elastic strain energy stored from a force–extension graph for a sample.	**GC**	Teacher uses Google classroom to share the ppt and worksheet.
28th Sept Monday	**12 A**	1	**Learning objectives**: Develop ideas about springs in series and parallel Lead students toward the idea of dependence of force and extension on material dimensions. Differentiate between tensile/compressive stress and	**Zoom**	Teacher uses interactive power point presentation and breakout sessions for students to collaborate and

1st Oct Thursday	**12 B**	3	strain **Learning Outcomes** : Calculate the resultant Force constant for springs in series and springs in parallel and thus calculate the total extension Define and use the terms stress, strain, and ultimate tensile strength (breaking stress) Be able to calculate stress and strain from given data State the S.I units of stress		attain the objectives. HW
21st Sept Monday **24th S**ept Thursday	**12 A** **12 B**	2 4	**Learning objectives**: Recognize that Young modulus is a property of a material's stiffness and is independent of its dimensions. Realise that a gradient of stress-strain graph gives the value of Young's Modulus. **Learning Outcomes** : Define and use the terms Young modulus State and use the S.I units of Y.M Use a stress-strain graph to calculate young's modulus	**Zoom**	Teacher uses interactive power point presentation and breakout sessions for students to collaborate and attain the objectives.

YEAR 12 A/ B – PHYSICS

WEEK 5 (27th Sept to 1st Oct) - 3 lessons for both batches

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

Topic: 2.12 Motion graphs
2.16 Kinematic equations

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	
27th Sept Sunday **29th** Sept Tuesday	**12 B** **12 A**	6 4	**L.O –** Draw and interpret displacement/time, velocity/time and acceleration/time graphs for a bouncing ball. **Learning outcomes-** • Analyse the motion of a bouncing ball in terms of s-t, v-t and a-t graphs. • Plan an experiment to investigate the motion of a bouncing ball using motion sensor.	**Zoom**	Teacher uses power point presentation to explain the motion of a bouncing ball and provide a good example of how motion is represented graphically.
27th Sept Sunday 1st Oct Thursday	**12 B** **12 A**	7 1	**L.O –** Derive, from the definitions of velocity and acceleration, equations that represent uniformly accelerated motion in a straight line **Learning outcomes-** • Use the equations for uniformly accelerated motion in one dimension: $v = u + at$ $s = ut + ½ at^2$ $v^2 = u^2 + 2as$ • Identify negative displacement, velocity and acceleration in different situations.	**Zoom**	AFL on motion graphs – 10 marks Teacher uses interactive power point presentation to explain the concepts. Recall the eqns of uniform acceleration and can apply them in calculations involving motion in straight lines.
			L.O : Solve problems using		Worksheet prepared in two

30th Sept Wednesday **1st** Oct Thursday	**12 B** **12 A**	3 2	equations that represent uniformly accelerated motion in a straight line, including the motion of bodies falling in a uniform gravitational field without air resistance. **Learning outcomes-** • Recall the kinematic equations for uniformly accelerated motion. • Calculate unknown variables using the kinematics equations.	**Zoom**	levels to practise using the equations for uniform acceleration. Teacher will post the worksheet in the GC. HW