

## YEAR 13 – MATHEMATICS (Week 6)-2020-2021

<b>Subject</b>	<b>Mathematics</b>
<b>Class/ Section</b>	<b>Year 13 – Batch A, B and C</b>
<b>Week</b>	<b>4<sup>th</sup> October to 8<sup>th</sup> October</b>
<b>Work send to students by</b>	<b>Google classroom</b>
<b>Total number of lessons per week</b>	<b>3</b>
<b>Units</b>	<b>– Chapter 11-Variable acceleration</b>
<b>Lessons 1,2,3 –Live Zoom lesson along with face to face instruction for students present on a particular day</b>  <b>Work will be assigned in google classroom which will be matched to the students ability.</b>	Learning objectives – <ul style="list-style-type: none"><li>- To understand that displacement, velocity and acceleration may be given as functions of time</li><li>- To use differentiation to solve kinematics problems</li><li>- To use calculus to solve problems involving maxima and minima</li><li>- To use integration to solve kinematics problems.</li></ul>
<b>Tasks</b>	<b><u>Intended Learning Outcomes</u></b> -Students will be able to deduce that when displacement is a function of time then the velocity would be found by differentiating the expression for displacement with respect to time.  - Students will be able to sketch as velocity time graph when velocity is a function of time. - Students will be able to apply their knowledge of maxima and minima to solve questions where acceleration is zero can be viewed as particle moving with maximum velocity. -Students will be able to apply their knowledge of definite integrals to find the total distance travelled in a given interval.

**Resources**

Complete the questions assigned from the Mechanics 1 text book on forces and motion(Ex11A-11 D) in the notebook. Students will be put in break out rooms during Zoom lesson to encourage collaborative learning.

1. Edexcel Statistics& Mechanics book 1 textbook
2. <https://www.physicsandmathstutor.com>