YEAR 9 – MATHEMATICS (Week 3) -2021-2022

Subject	**Mathematics**
Class/ Section	**Year 9**
Week	**12ᵗʰ September to 16ᵗʰ September**
Work send to students by	**Google classroom**
Total number of lessons per week	**6**
Unit/Topic	**Unit 1.4 – Calculating with powers** **Unit 1.5 – Zero, negative and fractional indices** **Unit 1.6 – Powers of 10 and standard form**
Key Vocabulary	Index laws, Fractional indices, Standard form
Lessons 1,2,3,4,5 –Live Zoom lesson along with face to face instruction for students present on a particular day **Work will be assigned in Google classroom which will be matched to the student's ability.**	**Specific Learning objectives** - Multiply and divide using index laws. - Work out a power raised to a power. - Use negative indices - Use Fractional indices - Write a number in standard form **Specific Intended Learning Outcomes** -Students will be able to apply the index laws - Students will be able to work out the values of fractional indices. - Students will be able to solve problems involving standard form.

Tasks/Activities	The teacher will introduce the concepts using PPT. Complete the questions assigned from the text book in the notebook. Students will be put in break out rooms during Zoom lesson to encourage collaborative learning.

Assessment Criteria/ Essential questions	**16** **Problem-solving / Reasoning** Will says that $25^{-\frac{1}{2}} \times 64^{\frac{2}{3}} = 80$
	  a Show that Will is wrong.
	  b What mistake did he make?
	
	11 **STEM / Reasoning**
	  a The distance from the Sun to Neptune is $4\,500\,000\,000\,000$ m.
	    i Write this number in standard form.
	    ii Enter the ordinary number in your calculator and press the = key. Compare your calculator number with the standard form number. Explain how your calculator displays a number in standard form.
	
	Assessment objectives expected by the board with respect to the above question is listed below.
	
	AO1: use and apply standard techniques
	AO2: Reason, interpret and communicate mathematically
	AO3: solve problems within mathematics and in other contexts

Resources	1. Text Book – Edexcel GCSE (9- 1)Mathematics Higher Student Book 2. PPT on the topic 3. Active learn