



مدرسة القديسة مريم الكاثوليكية الثانوية - دبي  
ST. MARY'S CATHOLIC HIGH SCHOOL, DUBAI

**YEAR 11 – MATHEMATICS (Week 5) 2021-2022**

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|---|---|
| <b>Subject</b>  | <b>Mathematics</b>  |
| <b>Class/ Section</b>   | <b>Year 11</b>  |
| <b>Week</b>   | <b>26<sup>th</sup> September to 30<sup>th</sup> September</b>   |
| <b>Work send to students by</b>   | <b>Google classroom</b>   |
| <b>Total number of lessons per week</b>   | <b>5</b>  |
| <b>Unit 15.5</b>  | <b>Graphs Of Cubic Functions</b>  |
| <b>Key Vocabulary</b>   | <b>Cubic Functions, x and y intercepts</b>  |
| <p><b>Lessons 1,2,3,4,5 –Live Zoom lesson along with face to face instruction for students present on a particular day</b></p> <p><b>Work will be assigned in Google classroom which will be matched to the students ability.</b></p> | <p><b><u>Specific Learning objectives</u></b></p> <ul style="list-style-type: none"><li>• Expand and simplify three brackets</li><li>• Recognise and sketch Quadratic and Cubic graphs</li><li>• Solve problems involving polygons and parallel lines from the worksheet.</li></ul> <p><b><u>Specific Intended Learning Outcomes</u></b><br/>By the end of the lesson students will be able to</p> <ul style="list-style-type: none"><li>• To Expand and simplify three brackets</li><li>• To Recognise and sketch Quadratic and Cubic graphs</li><li>• To do problems involving polygons and parallel lines from the worksheet</li></ul> |

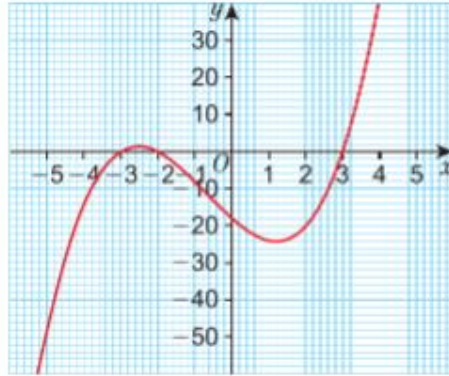
**Tasks/Activities**

**Assessment Criteria/  
Essential questions**

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

1.

**Problem-solving** The graph has equation  $y = x^3 + ax^2 + bx + c$



Work out the values of  $a$ ,  $b$  and  $c$ .

2.

- a Expand the expression  $(x - 3)(x + 4)(x - 2)$
- b What type of graph is  $y = (x - 3)(x + 4)(x - 2)$ ?
- c Write down the solutions to the equation  $(x - 3)(x + 4)(x - 2) = 0$ .
- d Where does the graph intersect the  $y$ -axis?

Assessment objectives expected by the board with respect to the above questions are listed below.

AO1: Use and apply standard techniques

AO2: Reason, interpret and communicate mathematically

AO3: Solve problems within mathematics and in other contexts.

**Resources**

**Text Book : Edexcel GCSE ( 9- 1 )Mathematics Higher  
Student Book  
PPT and worksheet**