**Investigation**

**Can you find the shortest route through the Dardanelles?**

***Group 2, 3***

The ***AE2 Submarine*** made a ‘most magnificent’ journey through the ***Dardanelles*** to help disrupt supply lines for the April 25th 1915 landing at Gallipoli. Captain Henry Stoker and his crew guided the Submarine through the narrow straights, through minefields to make it to the Sea of Marmara to ‘***Run Amok’***, as their superiors instructed them.

Your task is to design the shortest, safest journey to the final destination of the AE2 submarine, through the Turkish minefields.

* Apply your knowledge of geometry to determine the accurate ***distance***, ***gradient*** and ***equation of the line*** of each leg of your journey.
* Identify ***2 methods*** to work out the distance and the gradient.
* At the midpoint of each line, Captain Stoker needed to surface to determine their location and the location of the enemy. ***Find the Midpoint of each line.***
* Which method do you think is more accurate to show distance and direction? Explain your reasoning. (Include in your conclusion)

…………………………………………………………………………………………..............................

**Your Investigation must include:**

* Introduction

What is the question that has been asked? What mathematical devices will you use to answer the question?

* All Calculations clearly labelled and with correct mathematical symbols

clearly labelled and with correct mathematical symbols

* Map

Present your data graphically. If drawing by hand ensure lines are drawn in pencil.

* Conclusion

Include discussion of the challenges faced and how you found the shortest distance. Summarise the information/calculations you found. Answer your question with reference to the information collected. Compare your results to other students. Was your path the shortest, how could you improve your journey through the Dardanelles?

1st Draft due: FRIDAY Week 5

Final Due: FRIDAY Week 6