SIXTH FORM SUMMER TRANSITION TASK

	MATHEMATICAL STUDIES (CORE)	
	Qualification Level	Level 3, Certificate
	Exam Board/ Syllabus	AQA
	Contact(s)	Mrs Leeding

Part of the Core maths course focuses on using the maths you already know to help with real world problems and tasks. Sometimes you will need to carry out research and make decisions on the “best” options from the ones that you have to choose from.

Real world project

Your rich uncle is going to buy you a car for your 18th birthday. You can choose whichever car you would like, but he has said you will have to pay for the road tax and car insurance, as well as the fuel for the car.

You need to research the car you would like, and how much it would cost you a year to run it.

Task 1 - the car, tax and insurance

- Choose at least 3 cars for your shortlist - include their price and their fuel efficiency (mpg/miles per gallon)
- Find out the cost of road tax for each of these cars.
- Find at least 3 different insurance quotes for each of these cars.
- Compare the costs of the cheapest insurance deal for the cars.
- Decide on one car use in task 2.

Task 2 - using and affording the car

- Work out an estimate of how far you would drive per year. Include trips to school, to your friends and family, to a part time job and any leisure activities.
- Work out how much it would cost you to fill up the car for a year (use the mpg of the car from your research in task 1, your estimate of your distance travelled and the current cost of the fuel).
- Use the tax and car insurance information from task 1, and your fuel cost estimate, to work out how much it would cost you to run the car for a year.
- If you earn £7 an hour in your part time job, work out how many hours you would have to work to afford to run your chosen car.

You should collect all of your initial information in a spreadsheet or Google sheet, and you can use formulae to calculate your payments, mileage etc. and help you with your comparisons.
You need to present your findings back to your uncle and so must include all of the information asked for in the two tasks, as well as your final choices and your reasons for this. You could create a PowerPoint presentation of your research, or just include all the information in a written document.

You should spend at least 2-3 hours on this task, and you will be asked to email all of your work to your class teacher in September.