**GCSE Engineering term 6**

**All work to be submitted on Teams class site in Files/ NEA renewable energy folder**

**Documents to support will also be in this folder**

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| Work for year 10 GCSE EngineeringWeek beginning 15 June 2020Task deadline 22nd June 2020 |
| Task 1: (Read and Think Hard)Read through The NEA context provided on the use of renewable energy and start to let your brain digest the type of problem you will need to solve for your year 11 project.Have a look at the NEA Mark scheme to start to get an understanding of your final project requirements. |
| Task 2: (Renewable energy research)Week beginning 22nd June 2020Task Deadline 29th June 2020 |
| Complete a page of research summarising all the different types of renewable energy:WindSolar (PV)Hydro electricWaveTidalBio GasExplain how the technology works what basic components are required to make the system work.Complete this in PowerPoint if possible (or by any other means if you don’t have access) and upload it to our class teams site in Files/ NEA renewable energy |
| Task 3: (Review and evaluate your Renewable energy Research)Week beginning 29th June 2020Task Deadline 06th July 2020 |
| Read back through the research page you created making corrections and evaluating how easy or feasible using that technology will be for you going forward making a small electro mechanical product.Add evaluative comments to each type of energy with reference to scale, complexity and how feasible it may be to use.EG: Hydro electric powerCurrent HEP tends to use reservoirs and large dams this will not be suitable for a small scale electro mechanical product however any flowing water source can have renewable energy generated using a motor wired as a dynamo and a small water wheel or turbine. |
| Week beginning 06th July 2020 (research / innovate find a problem)Task Deadline 13th July 2020 |
| Now its time to try to come up with a problem the wider your range of scenarios the better at this stage.The best places to apply renewable energy to a electro mechanical product are places where products are required to remain in one place and don’t necessarily have easy access to power.Eg. Solar garden lights are very popular products as they can be put out in the garden quickly with almost no setup and just left to do there job. The alternative traditional way to light a garden would involve burying cables and wiring that requires a specialist. Create a page of images and annotation that show a wide range of opportunities for a product you might design. These should be products, problems and opportunities where off grid power would be useful and it does not require a lot of power for us to make a working proof of concept. Complete this in PowerPoint if possible (or by any other means if you don’t have access) and upload it to our class teams site in Files/ NEA renewable energy |