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| **6th Form** **Preparation work for****Engineering****Summer 2022** |  **Watch** the 16 videos about getting started in Fusion 360. Even if you have used Fusion 360 throughout Key Stage 4, these videos cover some advanced tools and commands you will not have used yet.[Getting Started in Fusion 360](https://f360ap.autodesk.com/courses/getting-started-in-fusion-360/lessons/user-interface-overview)Video Tutorials***Time: 3hrs*** | **Listen** to this Pod Cast about People Skills for Engineers and making a good first impression. [People Skills for Engineers](https://engineeringmanagementinstitute.org/tecc-224-people-skills-engineers-making-good-first-impression/)Pod Cast***Time: 30 mins*** |
| **Read** the web article about the wide range of engineering sectors available in the job market. Follow the sector specific links in the article to explore sectors that interest you in more detail. ***[Engineering Sectors](https://www.engineerjobs.co.uk/news-and-advice/the-different-types-of-engineering-sectors)******Web Article******Time: 1hr*** | **Complete** a one-page presentation about about the engineering sector that interests you the most. Include engineering organisations that work in your chosen sector.***Power Point Presentation******Time: 1hr 30min*** | **Complete** a research report that considers the advantages and disadvantages of the following common processes used to create engineered product:* **Fitting**, e.g. at a bench using manual tools (drilling, cutting, filing).
* **Machining**, e.g. turning, milling, grinding.
* **Fabrication**, e.g. welding, sheet metal work (bending, stamping, punching).
* **Electrical**, e.g. installation of looms, use of connectors/cables.
* **Forming**, e.g. casting, forging, moulding.

Your report should include images of each process and an explanation of each process operation.Word or Power Point based report***Time: 2hrs*** |