

Post 16 Summer Work

Summer 2021



	Task One	Task Two	Task Three	Task Four	Task Five
Digital 1	Augmented vs virtual vs mixed reality https://www.youtube.com/watch?v=XLP4YTpUpBI	Build a PC spec for the UTC for less than £500 System Builder - PCPartPicker	Data Classifications Data Classification (CISSP Free by Skillset.com) - YouTube	IoT – the fourth industrial revolution https://www.youtube.com/watch?v=1VhO4yGAiyo	Explore the data protection laws of the world - DLA Piper Global Data Protection Laws of the World - World Map (dlapiperdataprotection.com)
Cyber 1	Cyber Security – An introduction https://www.youtube.com/watch?v=z5nc9MDbvkW	Emerging cyber trends in 2021 https://www.youtube.com/watch?v=b8Sz9zjwnqs	Learn Linux command line basics https://ubuntu.com/tutorials/command-line-for-beginners#1-overview (test out here: https://www.masswerk.at/jsuix/index.html)	Virtualisation a beginners guide - https://www.youtube.com/watch?v=v4wz88mEVEk	Ransomware (Wannacry example) https://www.youtube.com/watch?v=cg4rfeX4mE
Cyber 2	Network basics https://www.youtube.com/watch?v=tSodBEAJz9Y	IP Addresses https://www.youtube.com/watch?v=LlzTo6e4FgY	DHCP explained https://www.youtube.com/watch?v=S43CFcpOZSI	Port Numbers https://www.youtube.com/watch?v=RDotMcs0Erg	DNS https://www.youtube.com/watch?v=F5GUi5pXpLk



Engineering 1	Unit 1	Unit 2 Interpersonal Skills – Negotiation https://www.skillsyouneed.com/ips/negotiation.html	Unit 3 Power point Impact of Design https://sgsutc-my.sharepoint.com/:p/g/person/craig_burford_berkeleygreenutc_or_g_uk/EdpFUpG1eZFItJKsARi077cBceTs4e3wu9XUbSPPQ0AxYA?e=lvO7y0	Unit 4 What is Engineering? https://youtu.be/bipTWWHya8A	Unit 5 How to Plan a Project – Feasibility Study https://sgsutc-my.sharepoint.com/:p/g/person/craig_burford_berkeleygreenutc_or_g_uk/EZlVVKsMpYJFhOSTi4Yb4w0BO24T6EvrJVl6JxaRslWnmA?e=A9fc6U
Engineering 3	Unit 21	Unit 24 How does a Clutch Work? https://youtu.be/devo3kdSPQY	Unit 30 Top 10 Mechanical Measuring Instruments https://youtu.be/lou9kAFGOjk	Unit 41 Milling Machine Types https://youtu.be/Chs55TQZOSk https://youtu.be/9UtKxZc3Mjw https://youtu.be/LDxq9AkxYfk	Unit 43 CNC Movement Codes (G00, G01, G02, G03) https://youtu.be/XqEWdLbOeZQ
A Level Maths	https://hegartymaths.com/login/teacher Powers, indices and roots Tasks 102-110, 113-120	https://hegartymaths.com/login/teacher Geometry Tasks 845-863 Circles Tasks 778-779,314-317	https://hegartymaths.com/login/teacher Algebraic substitution Tasks 780-789 Expressions Tasks 157-159,161-175	https://hegartymaths.com/login/teacher Quadratics tasks 223-229, 241-246, 252-260 Exponentials tasks 790-799, 302, 800-811	https://hegartymaths.com/login/teacher Inequalities tasks 267,271,273-277 Formula tasks 280-286 Graphs tasks 299-313

			Equations tasks 178-195 Sequences tasks 200-219		
A Level Further Maths	Matrices I https://www.mathsisfun.com/algebra/matrix-introduction.html	Matrices II https://www.mathsisfun.com/algebra/matrix-multiplying.html	Vectors https://www.mathsisfun.com/algebra/vectors.html	Complex numbers https://www.mathsisfun.com/numbers/complex-numbers.html	Calculus https://www.mathsisfun.com/calculus/introduction.html
A Level Computer Science	Oak National Academy While Loops and For Loops	Oak National Academy Functions	Oak National Academy Database Essentials	Oak National Academy SQL Searches and Queries	Oak National Academy Swim Challenge Part 1 and Part 2
A Level Physics	Oak National Academy https://classroom.thenationalacademy/lessons/drawing-electrical-circuits-c9hpcc https://classroom.thenationalacademy/lessons/charge-and-current-64r36t	Oak National Academy https://classroom.thenationalacademy/lessons/potential-difference-74tk4c https://classroom.thenationalacademy/lessons/electrical-resistance-6wvk4t	Oak National Academy https://classroom.thenationalacademy/lessons/series-and-parallel-circuits-69jk8c	Oak National Academy https://classroom.thenationalacademy/lessons/review-of-electrical-circuits-6gv3gc	Oak National Academy https://classroom.thenationalacademy/lessons/multi-step-calculations-6cwkgd
A Level Chemistry	Oak National Academy https://classroom.thenationalacademy/lessons/	Oak National Academy https://classroom.thenationalacademy/lessons/	Oak National Academy https://classroom.thenationalacademy/lessons/	Oak National Academy https://classroom.thenationalacademy/lessons/	Oak National Academy https://classroom.thenationalacademy/lessons/

	sons/relative-formula-mass-ht-only-6gtp8d	sons/moles-and-avogadros-constant-ht-only-chj3it	sons/balancing-equations-using-moles-ht-only-6gwkar	sons/reacting-masses-ht-only-69jk4d	sons/concentration-6rr6cc
Applied Science	Oak National Academy https://classroom.thenational.academy/lessons/prokaryotic-and-eukaryotic-cells-6cr6ae	Oak National Academy https://classroom.thenational.academy/lessons/comparing-of-cells-6di62r	Oak National Academy https://classroom.thenational.academy/lessons/atoms-elements-and-compounds-6cv3ge	Oak National Academy https://classroom.thenational.academy/lessons/chemical-formulae-and-conservation-of-mass-6ngk4c	Oak National Academy https://classroom.thenational.academy/lessons/drawing-electrical-circuits-c9hpcc
Esports	Explore this site. Gain an understanding of what Esports is, what competitions there are, and what games are played.	Visit this site. Develop your understanding of Esports tournaments. To be successful in these tournaments what skills are needed?	Who are the best three Esports teams in the world for a game of your choice? What makes them successful?	What are the five best ways to market an upcoming Esports tournament? Do some research to understand how marketing Esports events happens.	What is the history of Esports? Create a timeline highlighting 10 key points in the history of Esports.
Moving on – English	Ongoing task through summer: read at least one book and read as many articles (be they newspaper, blog, magazine, online, etc.) as you can.	Research and revise how to structure a review. Choose a film/TV show/video game/play/book/etc. Which you have read/seen and write a review of it. Be sure	Research and revise how a formal letter should be written. Write a letter to Gareth Southgate advising him on who should start in	Revise what FAPT (Form, Audience, Purpose and Tone) means and work out what the FAPT is for the book you are reading and for the most recent article	Write a story. There are absolutely no limits on this task. It can be about whatever you want, it can be as long as you want, it can have whatever target

	Choose whatever book you find most interesting. It can be one that you already own, it could be an ebook (many can be found for free online by searching for a pdf) or could involve buying a new book if you want to.	to include a brief summary of the film as well as an explained opinion on it. Make sure your SPaG is correct.	England's first game of the Euros OR a letter to a teacher thanking them for how they have helped you. Make sure your letter matches the correct structure and has accurate SPaG.	you have read. Explain how well you think the article matches its FAPT.	audience you want. You simply have to write a story and try to make it as engaging and interesting as you possibly can. Make sure your SPaG is correct.
Moving on – Maths	Oak National Academy https://classroom.thenational.academy/lessons/know-and-understand-pythagoras-theorem-70vp4t	Oak National Academy https://classroom.thenational.academy/lessons/find-the-equation-of-a-straight-line-using-ymxc-60u3gr	Oak National Academy https://classroom.thenational.academy/lessons/loci-from-a-shape-cmt36e	Oak National Academy https://classroom.thenational.academy/lessons/increase-and-decrease-an-amount-by-a-percentage-6rw3gt	Oak National Academy https://classroom.thenational.academy/lessons/velocity-time-graphs-6hiket
Moving on - Science	Oak National Academy https://classroom.thenational.academy/lessons/vaccines-70u6cc	Oak National Academy https://classroom.thenational.academy/lessons/the-importance-of-recycling-75gk2t	Oak National Academy https://classroom.thenational.academy/lessons/the-greenhouse-effect-6gup6r	Oak National Academy https://classroom.thenational.academy/lessons/climate-change-6gu6ce	Oak National Academy https://classroom.thenational.academy/lessons/alice-wilson-c8vpcc