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| **6th Form**  **Preparation work for**  **Computer Science**  **Summer 2022** | **Watch** the series of videos explaining the mechanics of computers. This is revision of the fundamentals of Computing, all of the technology you will learn about is based on this knowledge.  [Mechanics of Computers](https://www.youtube.com/playlist?list=PL8dPuuaLjXtNlUrzyH5r6jN9ulIgZBpdo)  *Crash Course Computer Science - YouTube*  ***Time: 2hr*** | **Listen** to this podcast episode. Hannah Fry travels back to the 1940s to hear the incredible story of the creation, in Britain, of computer memory.  [*Digital Brains*](https://www.bbc.co.uk/programmes/b069r3rt)  *Computing Britain podcast*  ***Time: 0.5 hr*** | **Listen** to this podcast episode exploring the 20th century shift from industrial to information society. What has been the cause of this shift and how will we recover the social cohesion that preceded it?  [The Great Disruption](https://www.bbc.co.uk/programmes/p00545kh)  *BBC In Our Time podcast*  ***Time: 1hr*** |
| **Complete** the introductory Edabit programming challenge. (email registration required).  [Challenge 1 - How Edabit works](https://edabit.com/challenge/rZToTkR5eB9Zn4zLh)  *Edabit website*  ***Time: 0.5 hr*** | **Listen** to this podcast episode. Hannah Fry reveals the surprising story of the chain of British teashops that created the first office computer.  [*LEO the electronic office*](https://www.bbc.co.uk/programmes/b069rvb4) *Computing Britain podcast*  ***Time: 0.5 hr*** | **Watch** the TED talk. In this wide-ranging, thought-provoking talk, Kevin Kelly muses on what technology means in our lives -- from its impact at the personal level to its place in the cosmos.  [Technologies Epic Story](https://www.ted.com/talks/kevin_kelly_technology_s_epic_story?language=en)  *TED Talks – Kevin Kelly*  ***Time: 0.5hr*** | **Complete** Edabit challenge 2 – The sum of 2 numbers.  (email registration required).  [Challenge 2 - Sum of 2 numbers](https://edabit.com/challenge/rZToTkR5eB9Zn4zLh)  *Edabit website*  ***Time: 0.5 hr*** |
| **Complete** Grok Learning Challenge 1 – Talking to your computer. (Registration required)  [Talking to your computer](https://groklearning.com/register/?next=%2Flearn%2Fintro-python-1%2Fintro-to-programming%2F0%2F)  *Grok Learning website*  ***Time: 1hr*** | **Complete** Grok Learning Challenge 2 – Calculating things. (Registration required)  [Calculating things](https://groklearning.com/register/?next=%2Flearn%2Fintro-python-1%2Fcalculating-things%2F0%2F)  *Grok Learning website*  ***Time: 1hr*** | **Listen** to this podcast episode. Hannah Fry explores ERNIE, a machine made by wartime code-breakers which became an unlikely celebrity.  [*ERNIE picks prizes*](https://www.bbc.co.uk/programmes/b069wzvw) *Computing Britain podcast*  ***Time: 0.5 hr*** | **Read** this article and answer this question:  Does a USB drive get heavier as you store more files on it?  [Does a USB drive get heavier - article](https://www.sciencefocus.com/future-technology/does-a-usb-drive-get-heavier-as-you-store-more-files-on-it/)  *Science Focus*  ***Time: 1hrs*** |