**St Mary’s Catholic School**

**Year 11 into Year 12 Bridging Work**

**Recommended Reading List for Year 12**

**Applied Science**

To prepare you for your Sixth Form studies, the reading list below includes a variety of books, articles, and other material to read and use, to broaden your knowledge, and to enrich your understanding of Science.

Take some time over the summer to complete the reading below, using the tasks to help structure your reading.

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| **Read / Watch** | **Link if this is available online** | **Tasks to complete** | **Any additional notes** |
| Read the article ‘Coronavirus lockdown giving world’s oceans much-needed breathing space’. | <https://environmentjournal.online/articles/coronavirus-lockdown-giving-worlds-oceans-much-needed-breathing-space/> | Read and make summary notes |  |
| Watch the TED Talk by Jim Al-Khalili ‘How Quantum Biology Might Explain Life’s Biggest Questions’ | <https://www.youtube.com/watch?v=_qgSz1UmcBM> | Watch this for pleasure to gain an understanding of the link between Biology and Physics. | This includes information on cell structure which is covered in the course. |
| Watch the TV series ‘Chemistry: A Volatile History’. | <https://www.bbc.co.uk/iplayer/episodes/b00qbq7f/chemistry-a-volatile-history> | Choose an element mentioned in the series to research further.  Write a short story about its discovery. | This includes information on the different chemical elements which is covered in the course. |
| Watch the TED Talk by Andrew Szydlo ’25 Chemistry Experiments in 15 Minutes’. | <https://www.youtube.com/watch?v=bOuEJf8Dr_4> | Watch this for pleasure to gain an understanding of how chemistry is found all around us in the everyday world. | This includes information on chemical reactivity which is covered in course. |
| Watch the various interactive videos on ‘The Elements’. | <https://www.open.edu/openlearn/science-maths-technology/science/chemistry/elements-the-periodic-table?LKCAMPAIGN=Google_grant_periodic&MEDIA=olexplore&gclid=Cj0KEQiA4qSzBRCq1-iLhZ6Vsc0BEiQA1qt-zseng4snkWJATgeJjv_yHaaIHDg5fCSs1ouSSocg2FsaAqkI8P8HAQ> | Write a short essay on the impact of chemical elements on our bodies, our world, and how they changed the course of history. | This includes information on the different chemical elements which is covered in the course. |
| Watch the TED Talk by Helen Czerski  ‘The fascinating physics of everyday life’. | <https://www.youtube.com/watch?v=_ryJK294Psw> | Watch this for pleasure to gain an understanding of the importance of physics in everyday life. |  |
| Watch the TED Talk by Dominic Walliman  ‘Quantum Physics for 7 Year Olds’ | <https://www.youtube.com/watch?v=ARWBdfWpDyc> | Watch this for pleasure to gain an understanding of how to communicate difficult ideas in science. |  |
| Listen to the podcast ‘Frontiers’ | <https://www.bbc.co.uk/programmes/b046l80q> | Listen to the episode ‘Power Transmission’ and write a review of the article. | This includes information on electrical circuits which is covered in this course. |
| Listen to the podcast ‘Science Stories’ | <https://www.bbc.co.uk/sounds/play/m000cl4v> | Listen to the episode ‘Isaac Newton and the Story of the Apple’.  Write a summary of the episode about Newton and how theories are accepted in Science. |  |
| Watch the TV series ‘Dissected’  (Be careful if you are squeamish) | <https://www.bbc.co.uk/iplayer/episode/p01mv2md/dissected-1-the-incredible-human-hand> | Produce a labelled diagram of the hand based on the dissection carried out. | This includes information on muscle tissues and nerve tissues which are covered in the course. |