**6.2 Student Pre-Further Education reading**

**Summer 2020**

Dear student,

Your final year at Thomas Telford School has come to an extraordinary conclusion but as a school we are determined to give you every opportunity to prepare yourselves for future studies. This will not only give you the chance to keep up to date with studies you may miss as a result of school closure but you will also find benefits in keeping your minds engaged and occupied where possible.

Between now and the beginning of your further education in design, engineering and related fields you should continue to access the resources made available via the online curriculum.

The online curriculum contains a wide range of video links which support all areas of Product Design study, these can be found in the ‘extension activities’ area of each revision topic. View these in order to give a thorough understanding of the theory content.

You will also find a new area on the online curriculum which is regularly being updated with links to current news articles relating to technology. This is named ‘Design and Technology Online Library’, you will find a wide range of online articles to allow you to read around the subject with the most up to date developments. We find that in difficult times such as these, design and engineering come to the forefront in terms of helping to problem solve and ease the difficulties faced by those on the frontline. Check on these regularly and read through, also feel free to send over links to either Mrs Tarr or Miss Hughes if you find an article you think is interesting which can be shared with other students.

Feel free to contact the Design & Technology department if you have any questions.

[jtarr@ttsonline.net](mailto:jtarr@ttsonline.net) [chughes@ttsonline.net](mailto:chughes@ttsonline.net)

**Suggested reading list:**

**Sustainable Energy – Without the Hot Air**  
**by David J.C. MacKay**  
Published by UIT, 2008  
ISBN: 0954452933

This book is available as a free download from [www.withouthotair.com/download.html](http://www.withouthotair.com/download.html)

**Sustainable Materials – With Both Eyes Open**  
**by Julian Allwood and Jonathan Cullen**  
Published by UIT Cambridge Ltd., 2012  
ISBN: 190686005X

This book is available as a free download from <http://withbotheyesopen.com/read.php>

***Engineering in Society***  
**edited by Rob Lawlor**  
Published by the Royal Academy of Engineering, 2013

An e-book published by the Royal Academy of Engineering that is available as a free (pdf) download from the [RAEng website](http://www.raeng.org.uk/publications/reports/engineering-in-society)

**How Do Wings Work?**  
**by Holger Babinsky**  
Published by Physics Education, 2003  
doi: 10.1088/0031-9120/38/6/001

Not a book but a paper published in the Institute of Physics journal Physics Education that is available as a free download from the [Physics Education website](http://iopscience.iop.org/0031-9120/38/6/001)

***Think Like An Engineer***

***by Guru Madhavan***

ISBN: 1780746377

<https://www.amazon.co.uk/Think-Like-Engineer-Inside-Changing/dp/1780748647/ref=sr_1_1?dchild=1&keywords=Think+Like+An+Engineer&qid=1587398463&sr=8-1>

***Engineering: A Very Short Introduction***

***By David Blockley***

ISBN: 9780199578696

<https://www.amazon.co.uk/Engineering-Very-Short-Introduction-Introductions/dp/0199578699/ref=sr_1_1?dchild=1&keywords=Engineering%3A+A+Very+Short+Introduction&qid=1587398591&sr=8-1>

***How Things Work – The Physics of Everyday Life***  
**by Louis A. Bloomfield**  
Published by John Wiley & Sons, 2009  
ISBN: 0470223995

<https://www.amazon.co.uk/How-Things-Work-Physics-Everyday/dp/0470223995/ref=sr_1_2?dchild=1&keywords=How+Things+Work+%E2%80%93+The+Physics+of+Everyday+Life&qid=1587397427&sr=8-2>

***Engineering: A Beginner's Guide***  
**by Natasha McCarthy**  
Published by Oneworld Publications, 2009  
ISBN: 1851686622

<https://www.amazon.co.uk/Engineering-Beginners-Guide-Guides/dp/1851686622/ref=sr_1_1?dchild=1&keywords=Engineering%3A+A+Beginner%27s+Guide&qid=1587397594&sr=8-1>

***Structures – or Why Things Don't Fall Down***  
**by J.E. Gordon**  
Published by DaCapo Press, 2003  
ISBN: 0306812835

<https://www.amazon.co.uk/Structures-Things-Dont-Fall-Down/dp/0306812835/ref=sr_1_1?dchild=1&keywords=Structures+%E2%80%93+or+Why+Things+Don%27t+Fall+Down&qid=1587397684&sr=8-1>