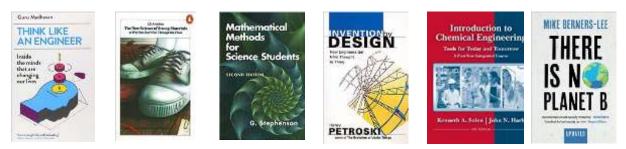


KS5 Supercurricular ENGINEERING



Do not forget to keep a diary/journal of your insights in what you read, see and do.

Reading



Cats' Paws and Catapults: Mechanical Worlds of Nature and People, S. Vogel	978-0393319903
Think Like An Engineer: Inside the Minds that are Changing our Lives	978-1780748641
Structures: Or Why Things Don't Fall Down, J.E. Gordon	978-0306812835
The New Science of Strong Materials: Or Why You Don't Fall Through the Floor, J.E. Gordon	978-0140135978
Mathematical Methods for Science Students, G. Stephenson	978-0486842851
Worked Examples in Mathematics for Scientists and Engineers, G. Stephenson	978-0486837369
Invention by Design: How Engineers Get from Thought to Thing, H. Petroski	978-0674463684
Engineering: A Very Short Introduction, D. Blockley	978-0199578696
Civil Engineering: A Very Short Introduction, D. Muir Wood	978-0199578634
Sustainable Energy - Without the Hot Air, D.J.C. MacKay	978-0954452933
There Is No Planet B: A Handbook for the Make or Break Years, M. Berners-Lee	978-1108821575
Introduction to Chemical Engineering: Tools for Today and Tomorrow, K.A. Solan and J.N. Harb	978-0470885727
	978-0470885727 978-1107669376
J.N. Harb	
J.N. Harb Chemical Engineering: An Introduction, M.M. Denn	978-1107669376
J.N. Harb Chemical Engineering: An Introduction, M.M. Denn Engineering: A Beginner's Guide, N. McCarthy	978-1107669376 978-1851686629
J.N. Harb Chemical Engineering: An Introduction, M.M. Denn Engineering: A Beginner's Guide, N. McCarthy The Gecko's Foot: How Scientists are Taking a Leaf from Nature's Book, P. Forbes	978-1107669376 978-1851686629 978-0007179893
J.N. Harb Chemical Engineering: An Introduction, M.M. Denn Engineering: A Beginner's Guide, N. McCarthy The Gecko's Foot: How Scientists are Taking a Leaf from Nature's Book, P. Forbes Flying Buttresses, Entropy, and O-Rings: The World of an Engineer, J.L. Adams	978-1107669376 978-1851686629 978-0007179893 978-0674306899
J.N. Harb Chemical Engineering: An Introduction, M.M. Denn Engineering: A Beginner's Guide, N. McCarthy The Gecko's Foot: How Scientists are Taking a Leaf from Nature's Book, P. Forbes Flying Buttresses, Entropy, and O-Rings: The World of an Engineer, J.L. Adams Understanding Flight, D. Anderson and S. Eberhardt	978-1107669376 978-1851686629 978-0007179893 978-0674306899 978-0071363778
J.N. Harb Chemical Engineering: An Introduction, M.M. Denn Engineering: A Beginner's Guide, N. McCarthy The Gecko's Foot: How Scientists are Taking a Leaf from Nature's Book, P. Forbes Flying Buttresses, Entropy, and O-Rings: The World of an Engineer, J.L. Adams Understanding Flight, D. Anderson and S. Eberhardt Simple Science of Flight: From Insects to Jumbo Jets, H. Tennekes	978-1107669376 978-1851686629 978-0007179893 978-0674306899 978-0071363778 978-0262513135
J.N. Harb Chemical Engineering: An Introduction, M.M. Denn Engineering: A Beginner's Guide, N. McCarthy The Gecko's Foot: How Scientists are Taking a Leaf from Nature's Book, P. Forbes Flying Buttresses, Entropy, and O-Rings: The World of an Engineer, J.L. Adams Understanding Flight, D. Anderson and S. Eberhardt Simple Science of Flight: From Insects to Jumbo Jets, H. Tennekes The Science of Formula 1 Design, D. Tremayne	978-1107669376 978-1851686629 978-0007179893 978-0674306899 978-0071363778 978-0262513135 978-1844257188

Listening and viewing

BBC Radio 4 – In Our Time, Science	https://www.bbc.co.uk/programmes/p01gyd7j	
Example Cambridge Engineering Interview	https://www.youtube.com/watch?v=f3IYdO0XYL4&t=1 219s	
Oxford Engineering Science Taster Lecture	https://www.youtube.com/watch?v=P7pc4OKAVIA	
Engineering Podcasts	https://eandt.theiet.org/content/articles/2017/01/listen -and-learn-7-great-podcasts-for-young- engineers/	
Engineering Podcasts	https://www.borntoengineer.com/resources/top- engineering-podcasts-stem-podcast-list-top	
TED Talks	https://www.ted.com/topics/engineering	
YouTube	https://www.youtube.com/results?search_query=engi neering+degrees	
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Engineering UK Chemical Engineering Magazine		





Resources

Chemical and Process Engineering Articles	http://www.cheresources.com/content/articles/
Oxford Sparks: Bringing Science to Life	https://www.oxfordsparks.ox.ac.uk/
iWantToStudyEngineering	https://i-want-to-study-engineering.org/
Isaac Physics	https://isaacphysics.org/
Project Drawdown	https://www.drawdown.org/

Explore NASA STEM https://www.nasa.gov/stem **Engineering Resources** https://www.engineering.com/home F1 in Schools https://www.f1inschools.co.uk/ **Greenpower Education Trust** https://www.greenpower.co.uk/ Interactive Problem Solving https://brilliant.org/ **Royal Academy of Engineering** https://www.raeng.org.uk/ **Tomorrow's Engineers** https://www.tomorrowsengineers.org.uk/ engNRICH https://nrich.maths.org/6466 whynotchemeng https://www.icheme.org/education/whynotchemeng/ **New Scientist** https://www.newscientist.com/ Institution of Mechanical Engineers https://www.imeche.org/careers-education/careersinformation/mechanical-engineering-careersguide/find-a-work-placement-work-experience-





Doing

or-internship

Learn Python3	https://www.codecademy.com/learn/learn-python-3
Python For beginners	https://www.python.org/about/gettingstarted/
EDT	https://www.etrust.org.uk/edt-programmes
Arkwright Engineering Scholarships	https://www.arkwright.org.uk/
Python Challenges	https://www.chch.ox.ac.uk/admissions/python- challenges-page
UK Mathematics Trust	https://www.ukmt.org.uk/
National Science and Engineering in the UK	https://www.nsew.org.uk/science-competitions-in- the-uk.html
Competitions	https://www.borntoengineer.com/resources/enginee ring-competitions
The Science Museum (London)	https://www.sciencemuseum.org.uk/see-and- do/engineer-your-future
The Science and Industry Museum (Manchester)	https://www.scienceandindustrymuseum.org.uk/