

Suggested Physics Reading, ready for A2 and UCAS

This is extremely relevant to you if you are planning to apply for courses in subjects like Physics, Engineering, Chemistry, Maths, Natural Sciences or Materials Science. If you're planning on applying for courses like Geography or Economics, it is probably less relevant to you, though you might want to ask someone else for an equivalent list!

You are already starting on the University applications path for next term. One of the things that real admissions tutors tell us they like to see on your statements is evidence that you have read around the subject. If you aren't prepared to read some extra books voluntarily about the subject(s) you are applying to spend at least three years studying, you need to ask yourself why not!

Below are some suggestions to get you started.

1) Available in the school library

Title	Author	Relevant to
A short history of nearly everything	Bill Bryson	Younger ages, but a good light read for you
50 Physics ideas you really need to know	Joanne Baker	All subjects
Big Bang	Simon Singh	Physics, Astronomy
Mr Tomkins in paperback	George Gamow	Physics, Mathematics
Science: a history	John Gribbin	Any science subject (including Biology)
The four laws that drive the universe	Peter Atkins	Physics, Engineering, Chemistry, Mathematics
The language of physics	Jon Cullerne and Anton Machacek	Physics, Mathematics
Theoretical concepts in physics	Malcolm Longair	Physics, Mathematics (<i>this may be too advanced for you, unless you <u>really</u> like a challenge!</i>)
Just six numbers	Martin Rees	Physics, Astrophysics

2) Visit a University Bookshop

If you have the chance to go to a University town/city/campus and look in their bookshop, you will find a much better range of books for your subject reading than the average high street bookshop. Strongly recommended is Blackwell's on Broad Street in Oxford (OX1 3BQ), which has a huge Popular Science section with lots of books which you should find of interest. It also has copies of all the main undergraduate course textbooks for Physics, Engineering etc.

3) Engineering

Cambridge's Engineering Department has an excellent and extensive suggested reading list on its website: www.eng.cam.ac.uk/admissions/information/reading.html.

4) **Very Short Introductions**

There is also the extremely good *Very Short Introductions* series of books from the Oxford University Press which cover a huge range of topics in just the right depth for you at this stage, and are only around 100 pages each so don't take long to read. They're cheap(ish) as well. Take your pick from the following list:

- Astrobiology: A Very Short Introduction
- Astrophysics: A Very Short Introduction
- Black Holes: A Very Short Introduction
- Chaos: A Very Short Introduction
- Civil Engineering: A Very Short Introduction
- Computer Science: A Very Short Introduction
- The Computer: A Very Short Introduction
- Cosmology: A Very Short Introduction
- Crystallography: A Very Short Introduction
- The Elements: A Very Short Introduction
- Engineering: A Very Short Introduction
- Fractals: A Very Short Introduction
- Galaxies: A Very Short Introduction
- Galileo: A Very Short Introduction
- Game Theory: A Very Short Introduction
- Gravity: A Very Short Introduction
- The History of Astronomy: A Very Short Introduction
- The History of Time: A Very Short Introduction
- Isotopes: A Very Short Introduction
- The Laws of Thermodynamics: A Very Short Introduction
- Light: A Very Short Introduction
- Magnetism: A Very Short Introduction
- Materials: A Very Short Introduction
- Mathematics: A Very Short Introduction
- Measurement: A Very Short Introduction
- Molecules: A Very Short Introduction
- Moons: A Very Short Introduction
- Newton: A Very Short Introduction
- Nothing: A Very Short Introduction
- Nuclear Physics: A Very Short Introduction
- Nuclear Power: A Very Short Introduction
- Nuclear Weapons: A Very Short Introduction
- Numbers: A Very Short Introduction
- Particle Physics: A Very Short Introduction
- The Periodic Table: A Very Short Introduction
- Philosophy of Science: A Very Short Introduction
- Physical Chemistry: A Very Short Introduction
- Planets: A Very Short Introduction
- Quantum Theory: A Very Short Introduction
- Radioactivity: A Very Short Introduction
- Relativity: A Very Short Introduction
- Robotics: A Very Short Introduction
- Science and Religion: A Very Short Introduction
- Sound: A Very Short Introduction
- Stars: A Very Short Introduction
- Statistics: A Very Short Introduction
- Structural Engineering: A Very Short Introduction
- Superconductivity: A Very Short Introduction
- Telescopes: A Very Short Introduction