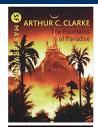
### **FICTION:**



### The Fountains of Paradise Arthur C Clarke

In the 22nd century, plans will revolutionise the future of humans in space: a Space Elevator, 36,000 kilometres high, anchored to an equatorial island in the Indian Ocean.



### The Science of Disc World Terry Pratchett, Ian Stewart et al

(One for Disc World fans) The wizards have a pocket universe where neither magic nor common sense stand a chance against logic, but this universe of rules has led to a complex world and at least one species that tried to get a grip of what was going on.



### A Fire Upon The Deep Vernor Vinge

In a Universe of different zones where artificial and biological intelligence work differently, a family of scientists, including children are taken captive and used as pawns in a ruthless power struggle involving a secret that may save interstellar civilization.



### The Hitchhiker's Guide to the Galaxy Douglas Adams

Originally a radio series, it's also a TV series and a film.

A funny and thought provoking adventure in which Adams pushes the consequences of many human endeavors, including Physics, to hilarious and thought provoking extremes



### Angels and Demons Dan Brown

At CERN a world-renowned scientist is found brutally murdered with a mysterious symbol seared onto his chest. Somewhere beneath the Vatican an unstoppable bomb of terrifying power relentlessly counts down. There's sort of some Physics in it.



- <a href="https://science.nasa.gov/">https://science.nasa.gov/</a>
   News, pictures, daily updates from NASA
- https://player.fm/podcasts/Astrophysics
   An updated list of Astrophysics podcasts.
- https://www.bbc.co.uk/programmes/genres/factual/ scienceandnature/scienceandtechnology
   BBC TV & audio.

### **PODCASTS:**

### **Physics World Audio**

features from the world's leading physicists and science writers, comprehensive news and analysis, incisive opinion pieces, sound careers advice, reviews of the best new books and multimedia

#### More or Less

The facts about statistics in the news. Sometimes Physics always interesting, usually important.

#### The Science Hour

BBC—not only Physics, but always worthwhile.

### **INSPIRATION:**

The nitrogen in our DNA, the Calcium in our teeth, the iron in our blood, the carbon in our apple pies were made in the interiors of collapsing stars. We are made of star stuff.

**Carl Sagan** 



Ilkley Grammar School
A Moorlands Learning Trust Academy

## **Physics**

# POST-16 SUBJECT ENHANCEMENT

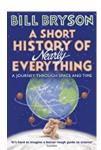


### **NON-FICTION**



#### What If? Randall Monroe

Thought provoking questions answered: "if humans just disappeared, what would be the last light to go out?". Covers some philosophy of science BUT also includes questions to which the answers are calculated. Physics students could do some of these themselves, so you could actually try to work some of them out yourself before seeing how Randall does it.



### A Short History of Nearly Everything Bill Bryson

Starts with lots of Physical Science approached with curiosity by an non-scientist who's decided he needs to know this stuff! There's more Biology towards the end of the book, and the pace drops a little, but overall, a very satisfying read.



### 13 Things That Don't Make Sense Michael Brooks

There are experimental results that the most brilliant scientists can neither explain nor dismiss. In the past, similar anomalies have revolutionised our world: in the sixteenth century, a set of celestial irregularities led Copernicus to realise that the Earth goes around the sun and not the reverse. In 13 Things That Don't Make Sense Michael Brooks meets thirteen modern-day anomalies that may become tomorrow's breakthroughs.

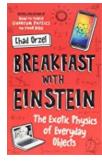


### We Have No Idea: A Guide to the Unknown Universe

#### Jorge Cham & Daniel Whiteson

Humanity's understanding of the physical world is full of huge yawning voids in our basic notions of how the world works. This book explores things we don't know armed with infographics, cartoons, and unusually entertaining and lucid explanations of science.

### **NON-FICTION**



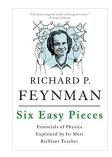
### Breakfast With Einstein Chad Orzel

Exciting physics doesn't only show up in the Big Bang, or a black hole, it's all around us. Beginning at sunrise, Chad Orzel embarks upon a fascinating tour of the exotic science that underlies each moment of our day. Did you know your alarm clock held secrets about quantum mechanics, and that the GPS on your phone has a built-in correction for the effects of relativity?



#### It's Not Rocket Science Ben Miller

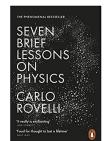
Ben Miller was working on his Physics PhD at Cambridge when he accidentally became a comedian: "Let me show you another, perhaps less familiar side of Science; her beauty, her seductiveness and her passion. And let's do it quickly, while Maths isn't looking".



### Six Easy Pieces Richard Feynman

The six easiest chapters from Feynman's landmark work, Lectures on Physics, specifically designed for the general, non-scientist reader.

Feynman's widely considered to look at things a little differently, using engaging analogies.



### Seven Brief Lessons on Physics Carlo Royelli

Recently translated from Italian, in this mind-bending overview of modern physics, Carlo Rovelli explains Einstein's theory of general relativity, quantum mechanics, black holes, the complex architecture of the universe, elementary particles, gravity, and the nature of the mind. "Not since Richard Feynman's celebrated *Six Easy Pieces* has physics been so vividly, intelligently and entertainingly revealed".

### SCHOOL INFORMATION

Exam Board: AQA

**Subject Leader:** Mr John Myers

Minimum grade required:

Grade 6 in Separate Science Physics or grade 6-6 in Combined Science and grade 6

in Mathematics.

### **MAGAZINES & PERIODICALS:**

You may wish to consider subscribing to:



### **Physics Review**

Involving the University of York, this is aimed at 6th form Physics students. Articles explore physics in situations ranging from everyday applications to frontier research. Regular features by teachers and examiners provide guidance on maths, practical skills and tackling exam questions.



#### **New Scientist**

Its well known for a reason. Though it covers all sciences and technology there's always lots of Physics in its weekly output. The best place to get a correct science version of whatever's in the news—whether that's Physics or Coronavirus.



Two with a Space focus:

**All About Space** 

Sky at Night

The names say it all!