



THORPE ST ANDREW SCHOOL

Happy Christmas
from ORBIT



ORBIT

CHRISTMAS 2019

ORBIT Challenge

Each month, we will feature a “problem” for you to ponder. The idea is to tease the brain cells a little, and to encourage some lateral thinking. They are similar to the questions allegedly posed at Oxford and Cambridge interviews.

December’s Challenge:

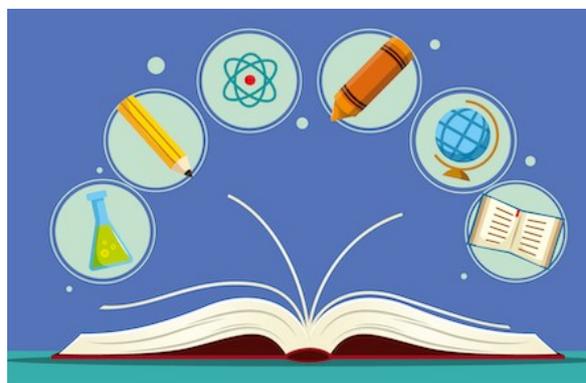
Would it matter if tigers became extinct?

ORBIT Coaching Programme

A number of Year 11 students have joined the Coaching Programme, which begins in January. Each student will be a member of a group of up to 10 Y11s, who will be coached by two or three Y12 students and a member of the ORBIT Teaching Team.

Our Y12 Coaches have only recently completed their GCSEs, and have been recruited as ORBIT Coaches because of their excellent results. They will be sharing revision strategies, time management tips, and workload issues.

Don’t miss out on the opportunity to be involved!



IN OUR TIME

20 YEARS

Every week, Radio 4 broadcasts a 45 minute discussion between leading academics on a topic of interest. During December, the topics have ranged from “Coffee”, to “Lawrence of Arabia”, taking in the History Of Ideas, Tutankhamun, and Li Shizhen (a Ming Dynasty Doctor). “IOT” has achieved something of a cult status with an audience greedy for knowledge on an amazingly diverse range of topics. Every IOT broadcast has been archived and is available as a download from the BBC Website. Click [here](#) to see the archived programme list.

IOT is recommended listening—it is frequently referred to in Cambridge University talks as a means to demonstrate interest in a subject.

Try an episode for yourself:

[Hybrids](#)—how parents from different species can reproduce.

[Kinetic Theory](#)—how we know gas molecules move

[William Cecil](#)—the most powerful man in Elizabeth I’s court

Read Something -:- Do Something -:- Visit Somewhere

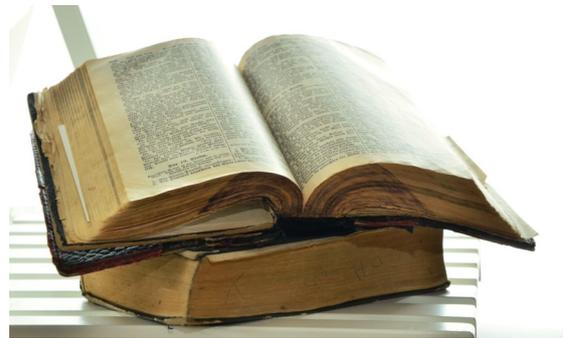
Demonstrating an interest in a subject area can be difficult. This section of the Newsletter will encourage you to get active, and to “do something” about your interest. Since it is December, and Christmas is approaching, we have a star theme for you!

Read Something

Just Six Numbers: The Deep Forces That Shape the Universe—Martin Rees

This book explores the connections between stars and atoms, and argues that there are just six values which determine the essence of the cosmos.

The book was written by the Astronomer Royal, Martin Rees, and argues that if these values were just fractionally different, then the universe would have developed in a completely different way. You can get a copy from Wordery (a local online bookshop) for just £4.01!



Do Something

Join the Norwich Astronomical Society!

The Society offers a student membership which provides a quarterly newsletter, discounted tickets to events, access to a dedicated members area of the website, and use of the Observatory at Seething.

Look out for Public Open Nights, when the Society opens its doors to the public to provide a tour of the Observatory, and (weather permitting) a chance to do a bit of stargazing for yourself.

Visit Something

Why not plan a day trip to Cambridge, and visit Herschel's Newtonian Telescope—I like to think it might be the telescope that Herschel first observed Uranus. The telescope is part of the Whipple Museum's permanent display, and is free to visit!



Whipple Museum of the History of Science