

PROFESSOR LEWIS DARTNELL

Tuesday 6th December

A day of events

Open to students and teachers in the
OX14 Learning Partnership



11:00 EXOPLANETS AND HOW TO FIND THEM

Student workshop - Abingdon School

We've now discovered over 4,000 extrasolar planets -- worlds orbiting other suns in our galaxy. But on the whole we've never actually been able to see these exoplanets; we've been able to infer indirectly that they are there. So what tricks do astronomers use to discover incredibly remote planets? What information can we gather from our telescopes, and therefore what can we tell about what an exoplanet is actually like? How can we tell if certain worlds are Earth-like and so potentially able to harbour life? In this workshop, we'll explore the science behind how you can discover and then characterise exoplanet

14:15 ASTROBIOLOGY - THE HUNT FOR ALIEN LIFE

Student Lecture - Amey Theatre (Y10/11/12/13)

'Astrobiology' is a brand new field of science, encompassing research into the origins and limits of life on our own planet, and where life might exist beyond the Earth. But what actually is 'life' and how did it emerge on our own world? What are the most extreme conditions terrestrial life can tolerate? And what would an alien actually look like - how realistic are the life-forms envisaged by science fiction novels and films over the years? Join Prof. Lewis Dartnell on a tour of the other planets and moons in our solar system which may harbour life, and even further afield to alien worlds orbiting distant stars, to explore one of the greatest questions ever asked: are we alone...?

16:15 HOW TO DEFINE LIFE AND DETECT IT

Student workshop - Abingdon School

We all know life when we see it on Earth -- a tiger is obviously alive whereas a skeleton or rock are not -- but how could you actually define what life is? What features or functions must something possess in order to be alive? And therefore, how could you design an experiment that will test for life on another planet? In this workshop, we'll explore how astrobiologists think about life in fundamental terms and so know what we're looking for with our scientific instrument aboard space probes.

19:00 ORIGINS: HOW THE EARTH SHAPED HISTORY

Community event and Q&A - Amey Theatre

Teachers please register for spaces here