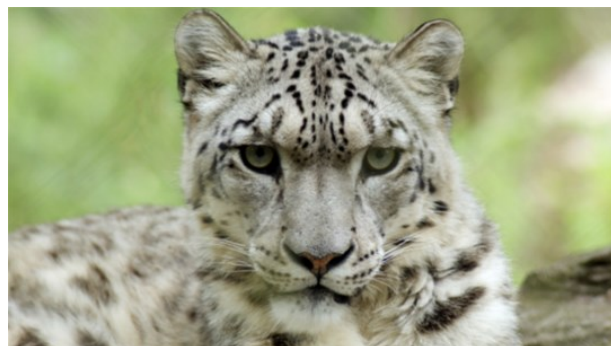


Cutting Edge Science in the Classroom - Biodiversity

Marwell Wildlife, Winchester, SO21 1JY
Saturday 25 March 2017, 10.00am – 4.00pm

Summary

Designed to support the new A level Biology curriculum this event considers the nature and importance of biodiversity for all species. You will consider the work that scientists who work with Marwell Wildlife do to judge existing populations of living organisms and how they try to predict the future using modelling techniques. Ethical discussions are considered about the impact of humans and the conflict of economic necessity and conservation.



Course Outcomes

You will be able to:

- identify new contexts and ideas for effective delivery of How Science Works
- explore scientific issues and controversies
- engage with inspiring teaching resources and approaches including practical work
- work alongside scientists involved in cutting edge research to develop knowledge and skills in authentic contexts

Course fees

£210 +VAT	maintained	state-funded school/college (including academies, free schools, UTCs)
£425 +VAT	non-maintained	independent school/college (fee paying)

Awards and Bursaries

£180 RCUK Bursary Thanks to funding from the Research Councils UK, all CPD which is part of the Bringing Cutting Edge Science into the Classroom programme qualifies for a bursary. State funded schools, colleges or universities in the UK can benefit from this funding for teachers, technicians and those on Initial Teacher Training (ITT).

Book your place online <https://www.stem.org.uk/cpd/304526/biodiversity>

Each participant will receive a complimentary family ticket for Marwell Zoo to use after the course

Outline Programme

This is a draft outline of the day and is subject to alteration

- 10:15 – 10:30** Arrive, Tea and Coffee (and possible tour of the building)
- 10:30 – 10:50** Welcome and introduction – **the importance of biodiversity and the levels in which it can be described:** Genetic diversity, species diversity and ecosystem diversity.
- 10:50 – 11:15** **Preserving genetic diversity:** A look at genetic diversity and breeding programs utilized by zoo's to preserve genetic material in an ex situ population.
- 11:15 – 11:30** **Tea and coffee**
- 11:30 – 12:00** **Ecosystem diversity in a managed habitat:** A look at the Biodiversity and management of Eelmoor marsh
- 12:00 – 12:30** **Bringing cutting edge science into the classroom :** Case study of current conservation work (This will cover how Marwell Wildlife Monitors population trends in Grevy's Zebra and uses data to develop conservation action plans)
- 12:30 – 13:30** **Lunch** (A selection of engaging ideas and take home resources will be made available during this time)
- 13:30 – 14:15** **Measuring species diversity:** Zoo based activity to calculate the species diversity in a mixed exhibit
- 14:15 – 14:30** **Tea and coffee**
- 15:00 – 15:20** **Calculating species diversity:** Calculating Species index using results from zoo based activity
- 15:20–16:00** **Networking and time in the zoo**