# Biodiversity and Evolution Key Stage 5

Students handle and compare Museum specimens to explore the connection between taxonomy, classification and phylogeny. This is related to principles of natural selection, evolution and speciation across the natural world.



### Length of Session: 90 minutes

#### Maximum group size:

Each workshop has a maximum capacity of 30 students accompanied by 2 members of staff

### This session is based on the following curriculum themes:

- Classification and taxonomy is a means of organising and naming the variety of life. Classification is based on the relationship between organisms and is built around the concept of a species.
- Classification systems have changed and will continue to change as our knowledge of biology develops.
- Adaptation and selection are major components of evolution and make a significant contribution to the diversity of life.

# **Session outline**

**Part 1:** Students take part in an interactive handling session on the theme of taxonomy, classification, phylogeny and evolution.

**Part 2:** Students get an opportunity to explore behind the scenes and find out how specimens are collected, stored and used.



**Part 3:** Students and teachers choose from a selection of self guided Museum activities highlighting fossils and modern day specimens that illustrate the curriculum themes included in the session.





## Learning outcomes

- Students know what is meant by the terms taxonomy, classification and phylogeny.
- Students understand the principles of natural selection, evolution and speciation
- Students appreciate how scientific ideas change over time and have better understanding of the role of the scientific community in validating changes.
- Students take a more active interest in the natural world through close access to museum specimens.

## Suggested pre- and post-visit work



Look at the selection of interactive activities available using the following links:

http://www.nhm.ac.uk/nature-online/ evolution/

http://evolution.berkeley.edu/

Read more about the great debate at http://www.oum.ox.ac.uk/learning/pdfs/ debate.pdf

## For more information...

Contact Sarah Lloyd, Secondary Science Education Officer sarah.lloyd@oum.ox.ac.uk 01865 282451



Oxford University Museum of Natural History, Parks Road, Oxford, OX1 3PW