



# 'Examining Environments: Supporting Controlled Assessments'

## Session Outline

**What impact do humans have on different habitats across the world? How do scientists assess the resulting changes in biodiversity? In the workshop students will become groups of research scientists carrying out their own independent research project to determine the changes in biodiversity in a particular habitat over a 10 year period. Using the museums fantastic collection, this workshop enables students to practice their scientific investigative skills, including experimental planning, making a hypothesis, analysing and interpreting data and drawing conclusions. Students will present their finding in a 'scientific conference' at the end of the workshops, therefore sharing their work with their peers. The workshop provides students with an engaging and memorable experience which directly supports the skills required in KS4 controlled assessments.**



This session is available in a half day or full day format. There are suitable breaks during the session. Due to the type of equipment and level of supervision involved in this workshop, **it is ideal for 20 students at KS4.**

Before your visit to the museum, you may find it helpful to discuss the following learning objectives with your class. This will give pupils a brief idea of what to expect in the session and will provide them with a basic scaffold of information to which they can apply the knowledge they will acquire over the course of the session.

## Session Learning Objectives

Students will:

- Explore the relationship between humans and natural world
- Examine in detail a particular habitat (Alpine, rainforest, steppe grasslands and woodland) including the variety of living things that live within it and their adaptations
- Classify living things using taxonomic classification methods
- Learn about different research methods and techniques used to assess biodiversity
- Find out about current scientific research within The University of Manchester
- Understand how to prepare and present a scientific poster
- Be inspired by the beauty and variety of the natural world
- Interpret scientific data and decide the most suitable way to present it

## Skills/Practical Techniques

Over the course of the session, pupils will:

- Use museums gallery and objects to stimulate ideas and thinking
- Use the physical features of an animal to classify and decide in which habitat it lives
- Use real specimens to make scientific interpretations
- Make a hypothesis based on one set of scientific data
- Identify and plan an experimental strategy
- Analyse and interpret a set of raw scientific data
- Present data and conclusions in the format of a scientific poster
- Orally present the results to peers
- Critically evaluate the investigative process