

Purpose

This activity is designed to introduce pupils to the taxonomic research that goes on in the Natural History Museum. Using botanical and entomological examples in the Darwin Centre, pupils will gather information to be used in their own presentations. It is anticipated that these activities will help learners to better understand careers in science.

Activities

- Using the Natural History Museum's resources to explore how scientists collect, share and interpret evidence
- Visiting *Cocoon* in the Darwin Centre and using booklets to gather evidence
- Making a presentation in the form of a science conference, a news report or a radio interview

Learning objectives

- To develop knowledge and understanding of variation and classification
- To understand how scientists share, interpret and collect evidence
- To select and identify relevant information to use in a presentation for a specific audience

Organisation

- Whole class starter and visit review
- Individual/ Group/pair work to make presentation and give feedback
- Research can be used as homework

Differentiation (in order of increasing challenge):

News report (group task) -> radio show (paired detailed interviews) -> science conference (data)



Curriculum Links

1.4 Collaboration

a) Sharing developments and common understanding across disciplines and boundaries

2.2 Critical understanding of evidence

a) Obtain, record and analyse data from a wide range of primary and secondary sources, including ICT sources, and use their findings to provide evidence for scientific explanations

2.3 Communication

a) Use appropriate methods, including ICT, to communicate scientific information and contribute to presentations and discussions about scientific issues. All students will be encouraged to present their work after the trip.

3.3 Organisms, behaviour and health

d) All living things show variation, can be classified and are interdependent, interacting with each other and their environment

4 Curriculum opportunities

c) use real life examples as a basis for finding out about science

d) study science in local, national and global contexts, and appreciate the connections

e) experience science outside the school environment, including in the workplace, where possible

h) explore contemporary and historical scientific developments and how they have been communicated

i) prepare to specialise in a range of science subjects at key stage 4 and consider career opportunities both within science and in other areas that are provided by science qualifications

Resource List

- Powerpoint templates: science/news/radio.
- Scientist props for news show and science conference
- Booklets (from *Cocoon* welcome desk).
- NaturePlus cards (from *Cocoon* welcome desk).

Suggested Equipment

- Interactive whiteboard for whole class introduction.
- Computer suite if you wish pupils to work independently in school.
- Microphone and laptop would be an advantage for the radio activity.
- Video recorder would be advantageous for the news and science activities.
- Poster paper for science conference activity.

Assessment

Most learners

Learners explain how scientists collect specimens to study and classify. They link this research to human or environmental issues, and communicate this clearly. Learners identify relevant images and text from their research to use in a presentation and deliver it to a specific audience.

Some learners will not have made so much progress

Learners understand scientists collect specimens. They use some examples from their research in their presentation for a specific audience.

Some learners will have progressed further

Learners evaluate scientific evidence and working methods to reach their own conclusions. They develop their own actions and use scientific language in their discussions and presentations. Video, photo and recorded sound can be used as evidence, as well as peer-reviewed presentations.

Page notes

1. Science at the Museum	First pre-visit task. Whiteboard whole class discussion: What is a scientist? What does biodiversity mean? Look at images and link to types of science in the Darwin Centre.
2a) Role 1: Scientist 2b) Role 2: News reporter 2c) Role 3: Radio interviewer	Pre-visit: Pupils choose role <ul style="list-style-type: none"> • Scientists will present science conference • News reporters will present TV news report • Radio interviewers will interview 'scientist' All will answer 'how do scientists study biodiversity at NHM?' Ideally this stage working independently or in groups at computer
3. Cocoon information	Whole class instructions to visit Cocoon, including collecting NaturePlus cards and booklets to help with presentation.
4. Review your activity	Post-visit: Whole class review: 'I never knew that...' pair discussion then sharing to discuss learning from Cocoon, then research time.
5. Presentation	Post-visit: Group presentations to class, then wider audience. Presentation tips for guidance and feedback.