

Purpose

This activity is designed to give a context for pupils to find out more about careers in science, with the specific example of taxonomic research at the Natural History Museum.

Activities

- Using the Natural History Museum's resources to explore how scientists collect, share and interpret evidence
- Visiting *Cocoon* in the Darwin Centre
- Carrying out a mock interview for a post as a Natural History Museum researcher, in the role of either an interviewer or interviewee

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 an interview activity
- To analyse data for use in a communication activity

Organisation

- Whole class starter and visit review
- Individual/ Group/pair work to make presentation and give feedback
- Research can be used as homework
- If interviewee or interviewer groups are unequal, more than one interviewer can ask questions or vice versa.
- Depending on your class, you may wish to have an overall top interviewer or interviewee.

Differentiation

Interviewer task can be more straightforward if template questions used.



Curriculum Links - How Science Works

1. Data, evidence, theories and explanations

- a) how scientific data can be collected and analysed
- b) how interpretation of data, using creative thought, provides evidence to test ideas and develop theories

2. Practical and enquiry skills

- b) collect data from primary or secondary sources, including using ICT sources and tools

Communication skills

- a) recall, analyse, interpret, apply and question scientific information or ideas
- c) present information, develop an argument and draw a conclusion, using scientific, technical and mathematical language, conventions and symbols and ICT tools

4. Applications and implications of science

- c) how uncertainties in scientific knowledge and scientific ideas change over time and about the role of the scientific community in validating these changes.

5. Organisms and health

- b) variation within species can lead to evolutionary changes and similarities and differences between species can be measured and classified

Resource List

- Job description
- Interviewer template
- Interviewee template

Suggested Equipment

- interactive whiteboard for whole class introduction
- computer suite if you wish pupils to work independently in school
- video recorder would be advantageous for filming and evaluating interviews

Challenges

Pupils need to prepare either:

- a) Interview questions to work out if another pupil has understood the skills and tasks involved in being a scientist.
- b) Examples to show that they have understood the skills and tasks involved in being a scientist, and can explain them.



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 are able to analyse data and explain its relevance in science.

Some learners will not have made so much progress

Learners understand scientists collect specimens. They use some examples from their research in their interview.

Some learners will have progressed further

Learners evaluate scientific evidence and working methods to reach their own conclusions. They 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 do biologists do? Job description.
2a) Role 1: Interviewer 2b) Role 2: Interviewee	Pre-visit: Pupils choose role <ul style="list-style-type: none"> • Interviewer • Interviewee <p>Ideally this stage working independently or in groups at computer</p>
3. Cocoon information	Whole class instructions to visit <i>Cocoon</i> , including collecting NaturePlus cards to gather information.
4. Review your activity	Post-visit: Whole class review: pair discussion then sharing to discuss learning from Cocoon, then research time.
5. Presentation	Post-visit: Mock interviews in class, possibly wider audience. Offer feedback.