

Cocoon in the Darwin Centre

Please use this information to help you and your students get the most from your visit.



On arrival	Use the main entrance on Cromwell Road, then check in at School Reception in the Picnic Area on the Lower Ground Floor. Allow plenty of time as the Museum gets very busy.
Activity location	Darwin Centre, Orange Zone. Please report to the welcome desk when you arrive and they will direct you to the start of <i>Cocoon</i> .
Start time	11.00 11.30 12.10 12.40 13.10 14.00
Duration	Approximately 45 minutes
Minimum ratio	Key Stage 3, 1 adult : 10 students Key Stage 4, 1 adult : 15 students Post-16, 1 adult per booking
Maximum group size	30 students per bookable slot Please ensure you meet the required minimum adult:student ratio.

When you arrive

When you arrive, you will need to register at School Reception in the Picnic Area on the Lower Ground Floor. Here you can use cloakroom and toilet facilities and reserve tables for lunch if required. If your students do not need to use these facilities, one teacher can register at School Reception while the remainder of the group goes straight to *Cocoon*.

Please note, toilet facilities in the Darwin Centre are extremely limited. There are no toilets available in *Cocoon*. School groups are strongly advised to use toilets in School Reception or off Central Hall before entering the Darwin Centre. There are a very small number of toilets at the entrance to the Darwin Centre

Running late?

To avoid missing your booked slot, you can head straight to the Darwin Centre welcome desk to register and reserve lunch tables, but please note there are no cloakroom facilities available in the Darwin Centre. If you are more than 10 minutes late for your booked slot, you may need to book a new slot for later in the day (subject to availability) especially if you have other activity bookings after *Cocoon*.

Important logistical information

To reach the Darwin Centre from the Central Hall, walk along Dinosaur Way, following the signs. Report to the welcome desk and collect NaturePlus cards for students to use on their journey (see page 3 for more information).

To reach the start of *Cocoon*, take the lifts from the reception area. Maximum lift capacity is 12 people. We advise splitting your class into appropriate-sized groups in advance. It will take approximately five minutes to transport a class of 30 plus adults up to the start of the journey. Please brief your students to proceed into *Cocoon* to begin their experience as soon as they exit the lifts rather than waiting for the whole class to arrive. It is advisable to have one teacher or adult leading the group from the first lift and one teacher or adult following at the back from the last lift.

Cocoon spirals down from the top of the building to the exit. Students will have more opportunities to use the interactive elements of the experience if they move through in smaller groups. When they reach the end, students should take the first available lift down and re-group at the clearly marked meeting point in the atrium.

Please be aware that mobile phones do not work inside *Cocoon*, but coverage is available throughout the rest of the Museum.

A note about behaviour

Teachers have overall responsibility for the behaviour of their pupils and we expect you to support us with this where necessary. Pupils benefit significantly when teachers and accompanying adults also get involved, so please do join in.

Health and Safety

The views from the top of *cocoon* are incredible, but please warn those without a head for heights. The viewing platform bridge has high edge protective glass panelling. Students must be supervised and must not be allowed to throw items from this area.

Cocoon

Cocoon is our new interactive experience in the Darwin Centre. Here you can find out how we store, care for and use our 20 million entomology and botany specimens and discover some of the stories behind the scenes.

Who were the first collectors and how did their methods differ from modern day scientists? How do scientists organise, classify and name specimens? Why is our collection so valuable for research and how do we share it with the world? What do molecular techniques tell us about our specimens and how is this helping in the fight against malaria? Find the answers to all these questions and more in *Cocoon*.

To enhance your experience, students can use our new NaturePlus system to collect information for later use. They can also interact with our enthusiastic learning volunteers along the way. Pre- and post-visit material is available online to support your visit to *Cocoon* and encourage students to engage more deeply with the exhibits. Visit our website, www.nhm.ac.uk/education

NaturePlus

Scanning your NaturePlus card at selected exhibits will allow you to collect resource links including video clips, images and web links for later online access. This facility is ideal for prompting coursework research, and can be used in conjunction with *A Day in the Life of a Scientist* programmes below.

NaturePlus cards are free and available for collection at the Darwin Centre welcome desk. Stored information can be accessed online using a login ID on the barcode.

Learning volunteers

Monday–Friday, 10.45–14.00, subject to availability

Our learning volunteers will be in *Cocoon* to enhance your students' experience. Students will be able to handle and discuss a range of specimens from our Botany and Entomology Departments and find out more about the techniques our scientists use in their molecular and morphological research.

Before and after your visit: *A Day in the Life of a Scientist*

Our pre- and post-visit online activities will support your visit to *Cocoon* and are available free of charge for you to use in school. Themes have been developed to support the How Science Works framework. This activity needs to be booked in advance and involves some preparatory work at school before your visit. As part of this activity, Key Stage 3 students will be given a booklet on arrival at the Museum.

Students will be introduced to a scenario and will collect information in *Cocoon* to present back at school in a format of their choice, for example as a science conference, news clip or radio show. Students will be encouraged to generate their own questions to help gather evidence for their presentation. Follow up activities could be used for homework.

The focus for each Key Stage is as follows:

	Title	Themes
Key Stage 3	Who works at the Natural History Museum?	Biodiversity, tools and methods, historic scientists.
Key Stage 4	Careers – what have Natural History Museum scientists discovered?	Taxonomy, medical research, environmental science, data analysis and interpretation.
Post-16	Explore molecular methods at the Natural History Museum.	Scientific evidence and theory, molecular methods, fieldwork.

See www.nhm.ac.uk/education to view other resources and full curriculum links.

National Curriculum links

Key Stage 3

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 between these
- e experience science outside the school environment, including in the workplace, where possible
- f use creativity and innovation in science, and appreciate their importance in enterprise
- 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

Key Stage 4 science

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

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

A-Level

2 Aims

- a encourage students to develop their interest in and enthusiasm for the subject, including developing an interest in further study and careers in the subject
- d encourage students to develop and demonstrate a deeper appreciation of the skills, knowledge and understanding of How Science Works

3 Specification content

- 3.4 AS and A-Level specifications must include a range of contemporary and other contexts

Biology Appendix

1.3 Biodiversity

- d classification is a means of organising the variety of life based on relationships between organisms and is built around the concept of species
- e originally classification systems were based on observable features, but more recent approaches draw on a wider range of evidence to clarify relationships between organisms