



KS3 Science Day

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



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| 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 busy. |
| Activity locations | The Variety Show: Attenborough Studio, Darwin Centre, Orange Zone Cocoon: The Darwin Centre, Orange Zone Lunch: Picnic Area, Lower Ground Floor, Green Zone Gallery time: Any of our galleries, throughout the museum |
| Duration | Depending on booked slot, up to 3 hours 35 minutes |
| Minimum ratio | 1 adult : 10 students |
| Maximum group size | 30 students per slot. 180 in total. Please ensure you meet the required minimum adult : student ratio. |
| Your booked slots | A B C D E F see next page for details |

About the science day

Our pre-planned science day helps you to make the most of your visit with an exciting timetable of events. Experience *Cocoon* in the Darwin Centre, participate in The Variety Show, visit our fascinating galleries and use the lunch facilities.

Each class follows their own timetable during the day. Please refer to your allocated slots below. Gaps in the timetable are to allow sufficient time for you to move from one activity to another and to use toilet facilities if needed.

You are of course welcome to enjoy our galleries at any time when you have no other scheduled activity. However, be aware that it can take a full 15 minutes to move with a school group between the Picnic Area and the Darwin Centre. **Unfortunately, lunch slots cannot run over time, and we are unable to admit latecomers to The Variety Show** so please ensure you allow sufficient time to reach your destination.



Please register at School Reception in the Picnic Area on the Lower Ground Floor when you arrive. Here you can use cloakroom and toilet facilities and will be shown which tables have been reserved for you to use for lunch. It is important that you stick to the lunch time indicated because the Picnic Area is very busy and we cannot guarantee that space will be available at other times.

The Variety Show

This is a 35 minute show in the Attenborough Studio, Orange Zone.

The show aims to excite students about the diversity, complexity and beauty of life on Earth. There are engaging demonstrations involving Museum animal specimens, large props, volunteers and lots of audience participation. Students will find out about species' adaptations and how and why scientists classify life on Earth. They will discover how humans fit into this classification system and get the chance to do the job of our enquiries service scientists, emphasising the importance of features in the classification and identification of species.

Learning objectives

- to engender a sense of amazement and wonder for the diversity of life on Earth
- to understand species have adaptations that are advantageous for survival
- to understand how and why scientists classify specimens, and how humans fit into this system
- to understand that knowing about species' features enables scientists to classify, identify and name new species

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 (see page 4).

NaturePlus cards are free and are available for collection from a member of staff in the *Cocoon* welcome area. They do not need to be pre-booked. 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.

Gallery time

During the gallery time indicated on your timetable, you are invited to visit some of our other galleries in the Museum. Please see our website, www.nhm.ac.uk, for information and to help you choose. We recommend you select one or two areas to focus on as the Museum is too large to see everything in one visit.

Before and after your visit

A familiarity with concepts associated with variation, adaptation and classification may be beneficial, but are not essential for The Variety Show. The show can be used as an introduction or to consolidate your teaching of these themes.

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 curriculum. This activity needs to be booked in advance and involves some preparatory work at school before your visit. See www.nhm.ac.uk/education for more information.

Important logistical information

To reach the Darwin Centre from the Central Hall, walk along Dinosaur Way, following the signs. Report to the member of staff in the *Cocoon* welcome area, and collect NaturePlus cards for students to use on their journey.

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.

The entrance to the Attenborough Studio (for The Variety Show) is at the end of the cocoon, furthest from the welcome desk. **Please ensure you are ready and waiting to enter the studio 10 minutes before your show is scheduled to begin. Unfortunately, we are unable to admit latecomers.**

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

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.

We advise students to wash their hands after handling specimens.

A note about behaviour

The Science Day is self-guided. Teachers have overall responsibility for the conduct of their students, for ensuring that the Science Day timetables are followed, and leading their group from place to place. The Variety Show will be led by one of our Science Educators. We work to make it an inspiring and inclusive experience for all students and rarely have problems with behaviour, but please support with this where necessary.

National Curriculum links

Key Stage 3 science

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 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