

# Sedgwick Museum Schools Service



## Information for teachers



**2013**

# Resources for Schools

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The Museum Education Officers offers a variety of **taught sessions in the Museum**, all of which include handling objects from the collections of the Sedgwick Museum. While these sessions are mostly science-based, all are cross-curricular.

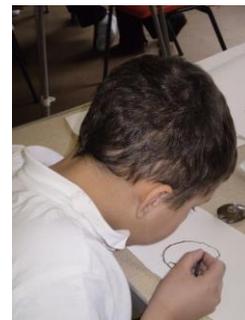
**Handling sets of fossils, rocks and minerals** are available for use in the Museum by school groups led by one of the Education Team or teachers who have attended a pre-visit training session. These can be used for observational drawing as well as multi-sensory observation and creative writing.

A variety of **worksheets and gallery trails** are available. Please ask a member of the Education Team for details.

## In the classroom...

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We are not able to offer outreach visits, but there are lots of resources and activities you can easily adapt for the classroom if you really can't manage a visit. Loan boxes (see below) are a great starting point for all sorts of activities.



You can **download resources** such as worksheets, notes and images of loan box contents from our website. You can also find a glossary of geological terms and further information about different aspects of earth sciences suitable for use by teachers or students.



**Loans boxes** of well-sized specimens for handling are available on request for up to 28 days. The service is free of charge. Loans sets are supported by basic guidance notes compiled in consultation with our teachers group.

**Book a pre-visit meeting** with one of the Education Team to get some more ideas - or contact us if you'd like some help planning classroom work to include earth sciences (rocks, fossil, minerals, climate change, earthquakes, volcanoes) in cross-curricular teaching and activities.

# Visiting the Sedgwick Museum - Information

## How to contact the Sedgwick Museum:

Post: Sedgwick Museum of Earth Sciences,  
Downing Street,  
Cambridge CB2 3EQ

Telephone: (01223) 766079 (Education Officer)  
(01223) 333456 (general enquiries)

E-mail: [sedgwickmuseum@esc.cam.ac.uk](mailto:sedgwickmuseum@esc.cam.ac.uk)

Website: [www.sedgwickmuseum.org](http://www.sedgwickmuseum.org)



## Opening times:

Monday – Friday: 10.00am – 1.00pm & 2.00pm – 5.00pm  
Saturday: 10.00am – 4.00pm

Please note that the Museum closes between 1pm and 2pm on weekdays.

## How to get to the Museum

The Museum is situated on the first floor of the Department of Earth Sciences on the University Downing Site on Downing Street, in Cambridge city centre.

The bus station is approximately 5 minutes walk, the railway station is about 12 minutes walk. A coach drop-off point is available in front of the Crowne Plaza Hotel on Downing Street, directly opposite the Department of Earth Sciences building.

The entrance to the Sedgwick Museum is through Downing Site; walk through the iron gates into the Porters Lodge (directly opposite the top of Corn Exchange Street) then turn left. The steps up to the Museum entrance are 50 metres in front of you. An accessible entrance is available and parking or drop-off on Downing Site for disabled people can be arranged - please ask for details when you book.



# The Sedgwick Museum of Earth Sciences: A Long History of Learning



The Sedgwick Museum of Earth Sciences opened in 1904 and is the oldest of the Cambridge University Museums. Today the Museum forms a part of the Department of Earth Sciences. The Museum exists to promote access to and stimulate learning through the collections in its care, and has a long history of being a friendly, accessible place of learning for the whole community.

The collections and the Museum are used for research by scientists from all over the world, as well as for teaching undergraduate students. The Museum is also open to the public and is a popular place for families, tourists and learning groups to visit to see an amazing array of fossils which record the history of life on Earth, rocks which help us to understand the formation and structure of our planet, and minerals which form rocks and are the basis of many of the materials and products we use every day.

## John Woodward's collections

The Museum (and the study of geology at Cambridge) was founded by the bequest of Dr. John Woodward on his death in 1728. He left his collection of rocks, fossils and minerals, probably the earliest in Europe, to the University along with a stipend to establish a lectureship in geology to enable others to learn from his collection. Part of his will stipulated that the lecturer should “*attend daily... in the room where (the collections) are repositd from the hour of nine of the clock in the morning until eleven, and again from the hour of two in the afternoon until four three days a week to show the said Fossils, gratis, to all such curious and intelligent persons as shall desire a view of them for their information and instruction*”. Through his bequest Woodward established the ongoing purpose of the Sedgwick Museum - learning and access for all. Woodward's collections are on view today inside the Museum in the “Woodwardian Pew”, an environmentally stabilised room which reconstructs how the office of the Woodwardian professor might have looked.

## Adam Sedgwick's museum

When Adam Sedgwick became Woodwardian professor, the collections were out-growing his office space in Trinity College. In 1841 Sedgwick persuaded the University to provide the Woodwardian Museum with its first permanent home in the Cockerill Building, behind the Senate House on King's Parade. Sedgwick collected huge numbers of fossil specimens for teaching and research during his tenure, including many of the larger skeletons such as the giant deer and several ichthyosaurs and plesiosaurs, so that this space was rapidly outgrown too. After Sedgwick's death, the present building was erected as a memorial to him and his work, funded mostly by subscription. The Sedgwick Museum of Geology, then the most expensive building in Cambridge, was opened in 1904 by King Edward VII.

## The Sedgwick Museum today



Since the Sedgwick Museum merged in the 1980's with the Museum of Petrology, the exhibitions have been updated to incorporate rocks and minerals from these collections, and the Museum was renamed the Sedgwick Museum of Earth Sciences. The Museum currently holds 1.5 million objects in the main museum as well as two other buildings in west Cambridge, and the collections continue to grow from new finds as collecting and research continues within the Department of Earth Sciences, and more finds are donated from all over the world. The new education services including the schools service aim to inspire a future generation of earth scientists through practical, object-based learning in this historic building.

# Visiting the Sedgwick Museum - What You Will Find!



- The **fossil displays** in the Sedgwick Museum are laid out as a time line (from oldest to youngest) and chart the evolution of life on Earth. The oldest fossils in the Museum are approximately 3 billion years old. Walk through time from one end of the Museum to the other to see how animals and plants have changed through geological time. Popular highlights of the exhibitions include the World's biggest spider, dinosaurs, marine reptiles, a giant deer and a hippopotamus from Cambridgeshire.



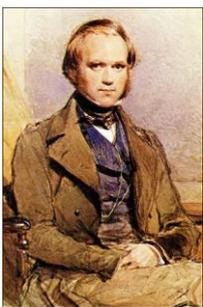
- The **Earth Bays** in the Oak Wing contain displays about the structure and composition of the Earth, discovering other planets, and Earth processes such as the rock cycle and plate tectonics. Highlights include meteorites, folded rocks and the first rock sample collected from the summit of Mount Everest!



- The **Whewell Gallery** contains sparkling displays of minerals and information about their structure and uses. Highlights include glittering gemstones, a rare specimen of native silver, displays about crystal shapes and colours, and a small display about minerals as pigments.



- The **Woodwardian Pew** houses the founding collections of the Museum. An amazing collection of fossils, gemstones and "curiosities" housed in original walnut cabinets, it can be viewed through glass, but is not accessible to visitors as it is environmentally sensitive. This display takes the form of a 18<sup>th</sup> Century study.



- **Darwin the Geologist** tells the story of Darwin's little known but formative work as a young scientist who was fascinated by the world around him. It is a biography of his collection of rocks, fossils and minerals made as a young man during his travels on the HMS Beagle. The centerpiece of the exhibition is an interactive globe with touchable rock samples to investigate.

Look at the Museum website [www.sedgwickmuseum.org](http://www.sedgwickmuseum.org) to see more pictures of the gallery and exhibitions and to find out more.

**You can download a Gallery Plan showing the layout of the Museum from <http://www.sedgwickmuseum.org/about/>**

# Visiting the Sedgwick Museum - Practical Issues

## Booking

Provisional bookings can be made by telephone and email, ideally 4 weeks or more before your intended visit date. Booking is essential whether or not you would like a facilitated session, this can avoid disappointment and helps us to keep our visitor records up to date.

If you are bringing a group to the Museum for the first time please arrange a pre-visit with the Education Team. This will give you an opportunity to find out more about the Museum and plan your visit more effectively.



## Numbers

We can accommodate parties of up to 35 children plus accompanying adults for taught visits. The maximum group size for independent visits is also 35. Because of the limited gallery space we can only accommodate one group at a time.

If your visit is going to include rock or fossil handling activities the group will need to be divided into 2 or more smaller groups as some activities cannot accommodate a whole class in one go. Please make sure that you bring enough adults with you to conform to LEA guidelines in terms of pupil/adult ratio for trips.

## Toilets

One toilet is available in the Museum, located between cases just to the left of the front door by the Information desk. A wheelchair accessible toilet is available downstairs in the Department of Earth Sciences - please let us know when you book if you or any of your group may need use of an accessible toilet. Both toilets have baby-changing facilities but we do not have nappy disposal facilities.

## Eating

Unfortunately we do not have an eating area at the Museum, and food must not be eaten in the gallery. There are a number of open spaces nearby for picnics in good weather. Some schools have used Emmanuel United Reformed Church for their lunch break which is 5 minutes walk away. It can be rented by the hour for a small fee. (<http://www.emmanuel-urc.org.uk/Church-Lettings-Cambridge.asp>).

## Access

The public gallery of the Sedgwick Museum is located on the first floor of the Department of Earth Sciences. Wheelchair (and stair-free) access to the Museum is available through the Department back door. This entrance is located directly underneath the main door to the Museum. Please note that the lift is not large enough to accommodate all wheelchairs or mobility vehicles.

The Museum itself is on two levels with 2 short sets of steps dividing the two parts. Wheelchair access between the two levels is via two chair lifts which are operated by a key which can be signed out from the Education Officer or the Duty Manager.

## **Storage**

There is a rack for hanging up bags and coats in the Museum porch, though the Museum cannot accept any responsibility for loss of or damage to items left here.

## **Behaviour**

The Museum is a public space as well as a place of work for University staff, and is used by many different groups and individuals for learning. Please help us to make everybody's visit to the Museum safe and pleasant, and respect the needs of people working nearby.

It is the responsibility of the group leader to make sure that members of the group are aware of these points, and to also inform helpers that it is their shared responsibility to maintain these standards during the visit. Groups visiting for a taught session will have these points reinforced during their introductory talk.

- Noise levels should be kept to a reasonable level to prevent disruption to those working nearby – classroom voices are fine.
- There should be no running about in the Museum. As well as being dangerous it is also very noisy for people working in the ground floor offices directly underneath!
- Mobile phones should be switched to silent during your visit, in particular during taught sessions. Please make members of your party aware of this.
- Please do not eat or drink in the Museum. Water in bottles is permitted, though in preference should only be consumed in the porch area. Any spillages should be reported immediately to a member of staff.
- Step stools are available in the gallery to help overcome accessibility issues presented by tall display cases and can be moved around the Museum. Please remind children to put these back where they came from as you reach the end of your visit. Other furniture around the gallery is not suitable for standing on.
- If your visit includes object handling, please remind the children that all of the rocks and fossils in the Museum are precious and unique and that it is a privilege to be allowed to touch them. Please refer to the instruction sheets "Handling rocks- a guide for teachers" and "Handle with Care" (see pages 13 & 14). If objects are mistreated they can cause injury and we may not be able to continue to use so many exciting specimens for handling in the future.

## **Museum Shop**

The shop is situated opposite the main door of the Museum. It sells a range of souvenirs, toys, books and educational goods relevant to the scope of the Museum's collections. This includes postcards, books, mineral specimens, fossils and fossil replicas, dinosaur models, activity kits, toys and geological field equipment. Prices start from 50p.

The shop is quite small, and for safety and security reasons children should be restricted to groups of no more than 10, accompanied by two adults.

## Health and Safety

**Fire:** In the event of a fire, an alarm will sound and the Museum will be evacuated by one of two fire exits which are clearly marked by green escape signs hanging from the ceiling. Please familiarise yourself with these upon arrival if you have not attended a pre-visit induction. The gathering point is on the lawn by the Downing Street gate. Fire notices are located by the Museum entrance and by the entrance to the Whewell Gallery.

**First aid:** In the event of accident or injury please inform a member of Museum staff immediately and they will contact a first aider. First-aid boxes are kept in the Museum shop and in Room 140, the office next to the Whewell Gallery.

**Risk Assessments:** You can download Risk Assessments for Group Visits and Handling Activities from the website ([www.sedgwickmuseum.org/education/resources](http://www.sedgwickmuseum.org/education/resources))

## Charges

All schools services are free. The Museum *does not* charge school groups for entry, use of resources or participation in education programmes including training for teachers.

We invite donations of £1-£2 per child from school parties visiting the Museum and using the education service. The service relies on donations to cover the cost of producing and printing worksheets and leaflets as well as helping to sustain learning resources such as books and games available in the Museum. Please talk to a member of the Education Team if you would like to make a donation to support the schools service.



## How can you help us support your visit?

**Book well in advance for a visit or use of a loan box:** For visits in particular the earlier you book, the more likely you are to get your first choice of date for both the visit and a pre-visit meeting. For a taught session with one of the Education Team you are recommended to book at least 4 weeks in advance.

**Have a clear idea of your objectives for your visit:** What do you want your class to get out of their visit to the Sedgwick Museum? We understand that a visit to a museum can be a big investment of both time and money, so it is important to us that we tailor facilitated sessions to your classroom work, making sure that you are happy with the services we provide.

**Book a pre-visit planning session:** This is valuable if you have not visited the Museum before and wish to bring a group for a taught session. This will include a short tour of the exhibitions, a chance to ask questions. If you would like to use the handling trolley during your visit, this will also include a short training and induction session for supervising object handling. This service is free, and can occasionally be offered outside of normal opening hours or on Saturdays.



# Visiting the Sedgwick Museum: Facilitated Visits



The Museum Education Team offers a range of activities and talks for school groups visiting the Museum. These sessions must be pre-booked at least 4 weeks in advance and require a pre-visit planning meeting with the Education Officer.

Below are examples of some regularly requested sessions and the age group and main curriculum link where appropriate. All activities are cross-curricular though all have science and scientific thinking as a basis. Talks are discussion- and handling-based so duration can vary depending on group size and enthusiasm. Content and duration will also be varied according to age group and ability. Please discuss your groups' needs with a member of the Education Team during your pre-visit. All sessions are subject to availability of a member of the Education Team.

## **Under your Feet (Primary; Rocks and Soils)**

A talk with object handling investigating what rocks Britain is made of beneath the soil and how they formed. Introduces the terms “igneous”, “metamorphic” and “sedimentary” as well as the names of some of the rocks in these families such as limestone, marble, basalt and schist. This talk is seated throughout.

## **Discovering fossils (All, science key skills)**

What is a fossil? How do we learn about life in the past? A talk with object handling which emphasizes scientific enquiry and ideas and evidence. Some unusual fossils help to build an understanding of why creative thinking is such an important skill for palaeontologists, and why some myths and legends might well be based on fossils. This talk is seated throughout.

## **Dinosaur! (All, skeletons and movement; teeth; science key skills)**

How do and have scientific ideas about life in the very distant past changed? Using dinosaur fossils as sources of evidence this talk tells the story of *Iguanodon* and how what we think the animal was like has changed over the past 250 years of its study. We also investigate other dinosaurs in the collections including some handling with fossil casts and think about how a whole animal can be rebuilt from just a few bones.

This talk requires standing and moving around, handling activities are seated.

## **Other times, Other Worlds (Year 5, Year 6 and KS3; Rocks, planets)**

Think about how and why our understanding of Planet Earth has changed through time as technology has changed, and think about how we learn about the other planets and bodies in our solar system. Then travel through time and space to investigate a mystery planet and the rocks it is made of. Is it like the Earth? Children work in small groups as planetary scientists to carry out their investigations.

This is a hands-on workshop which involves some moving around, some activities are seated, others require standing. The whole workshop requires a 2 hour visit. The workshop can also form one half of a whole-day visit by following up with a related session at the Museum of Classical Archaeology.

### **Ideas and Evidence at the Sedgwick Museum (KS3 science)**

Download as a separate pack including teacher and pupil workbooks from our website. This programme includes lesson plans for pre and post-visit activities along with a set of activities to do at the Museum. These are all designed to explore the nature and meanings of primary and secondary evidence. There is a strong cross-curricular emphasis to all of the activities which include a variety of different approaches and individual, small group and whole class work. The programme was devised and put together by teachers from schools in Suffolk working in partnership with the Museum Education Officer and the Secondary Science Consultant from Suffolk County Council.

### **Being Darwin the Geologist (KS2 & KS3)**

*Being Darwin the Geologist* is a comprehensive, flexible set of lesson plans for using in both the classroom and during a visit to the Sedgwick Museum. Devised by teachers working with the Museum Education Officer and the Darwin the Geologist project team, this pack includes novel ideas for combining scientific thinking with history, maths, literacy and PSHE. These cross-curricular exploring and investigating activities are aimed at Year 5 and Year 6 pupils, but their adaptable content makes them suitable for wider KS2 and also KS3.

### **Poetry Rocks! (all, science key skills, literacy)**

This activity is introduced as the One Word Game. Working together, each member of the group generates one word describing a single rock sample. This produces a word bank which they can then refine and add to. They then organise the words to come up with a simple list poem using poetic devices of their suggestion, and perform their work. The word bank can be taken back to the classroom for post-visit work.

## **Visiting the Sedgwick Museum: Self –Guided Visits**

There are loads of other things to do if you are unable to book a facilitated visit or are unable to come to the museum. Have a look the resources on the education pages of our website ([www.sedgwickmuseum.org/education/](http://www.sedgwickmuseum.org/education/)) for some ideas about drawing and word games you can play to focus the children on exploring and investigating the building and the exhibitions, or try your own version of rock poetry or rock sorting using objects from the handling trolley.

The Cambridge University Museums are working together to provide new training opportunities for teachers to learn more about getting the most out of museum visits- look out for INSET sessions which will be advertised on our website.

# Resources in the Classroom

## Handling Loan Boxes

Loans are for 28 days. They are free of charge, but please note that charges may be made for losses or damage sustained during a loan.



We currently have 4 loan boxes of handling objects available for schools:

- **Big Box of Rocks 1**
- **Big Box of Rocks 2 (shown left)**
- **Fabulous Fossils 1 (illustrated page 5)**
- **Fabulous Fossils 2**

These sets contain approximately 20 large rock or fossil specimens representing a wide range of ages and species of fossils and rock types and textures. They are all real objects from the Sedgwick Museum collections which have been very kindly loaned by the museum curators to the education service for handling.

Both rocks and fossils are fantastic for all sorts of activities; sorting, classification, observational drawing, creative writing. Please note that museum specimens should not be used for experiments such as scratch tests or immersion in water. If you need advice on where to find rock or mineral samples for testing please contact a member of the Education Team.

## Other Loan Boxes

**Fossil rubbings:** This set of fossil casts (not real fossils but perfect replicas) is for making rubbings using wax crayons. This is an excellent activity for early years and for projects exploring different textures in the natural and made environment.

**Early Years story boxes: “Hot Hot Hot” and “Boy”:** Two new loan boxes for Early Years developed in partnership with Brunswick Nursery School and Homerton Early Years Centre in Cambridge are now available. Creative activities and objects for handling, including mineral specimens and fossil casts based on the books “Oscar and Arabella: Hot, Hot, Hot” by Neal Layton and “Boy” by James Mayhew. The boxes include notes for teachers on EYC links and ideas for creative play and storytelling.



Oscar, Arabella and Ormsby are shown with permission from Neal Layton and Hodder Children's Books

When you borrow a loan box you will be given a form to complete during the period of your loan to help us to learn more about how the boxes are being used and by how many children. We are required to collect this information for our funding reports, so your help with this important feedback is much appreciated.

## Online Resources

**Tools of the Trade:** Want to try your hand as a geologist aboard HMS *Beagle*? The [Tools of the Trade](#) interactive will help you to find out more about the tools that Darwin used to map the locations he visited and to analyse and identify the geological specimens he collected.

**Exploring the Wenlock Reef:** This online resource provides lots of information about one of the famous fossil collections in the Museum. A wealth of information about the creatures and the time and place in which they lived, with a focus on how earth scientists use detective work to collect and interpret evidence to piece these stories together.