



## Educational visits at Attenborough Nature Reserve

We offer educational activities for all ages and we're happy to arrange a visit for your group.

Our pricing structure can be found [here](#). The price of your visit is based on the age, number of pupils and length of visit.

### **EYFS, KS1 & KS2:**

Choose 3 of the activities (in bold) for a full-day visit. Each activity lasts for approximately 60 minutes and children will have the opportunity to complete all activities chosen during the visit.

#### **Pond Discovery** (not available November - February)

Pond scene  
Pond dipping  
Investigating finds

#### **Woodland Exploration**

Sounds of the wood  
Leaf ID  
Minibeast hunt

#### **Meadow Safari**

Parts of Plant  
Flower Spotting / Life cycle role-play  
Be a Bee Game

#### **Bird Observation**

Secret word bird trail  
Bird watching with binoculars  
True or false game

### **KS3 & KS4:**

All of our KS3&4 visits are full day visits. Each activity lasts for approximately 90 minutes in length and students will have the opportunity to complete both activities listed below during the visit.

#### **Pond Study**

- Investigate a freshwater habitat by completing the OPAL water survey
- Identify and record freshwater invertebrate species – classifying them into groups using physical characteristics



- Collect data and begin learning how to account for the factors affecting scientific data collection
- Use findings to draw conclusions regarding water quality & pollution levels
- Discover the adaptations of species to this unique habitat
- Understand the biotic/abiotic factors impacting the habitat
- Discuss food chains & food webs
- Recognise human impact through pollution
- Become inspired about the fascinating underwater world

### **Woodland Study**

- Collect samples and recognise human impact through trampling upon several different factors
- Identify and record plant & terrestrial invertebrate species – classifying them into groups using physical characteristics
- Collect data and begin to learn to account for the factors affecting scientific data collection
- Understand the characteristics of soil and how to test them
- Discuss experimental design – how to improve the fieldwork
- Discuss the implications of the results for the management of these habitats

### **A-level:**

All of our A-level visits are full day visits. Choose 2 of the activities in bold from the list below. Each activity lasts for approximately 90 minutes and students will have the opportunity to complete all activities chosen during the visit.

### **Water Pollution Survey**

- Investigate a freshwater habitat by completing the OPAL water survey
- Identify and record freshwater invertebrate species from a sample – classifying them into groups using physical characteristics
- Collect data regarding the presence/absence of key groups and begin learning how to account for the factors affecting scientific data collection
- Use findings to draw conclusions regarding water quality & pollution levels
- Discover the adaptations of species to this unique habitat
- Understand the biotic/abiotic factors impacting the habitat
- Recognise human impact through pollution

### **Botanical Survey**

- Discuss conservation management and the need for surveys
- Learn how and why to get a representative sample
- Use quadrats and a **random sampling method** to compare the species richness and approximate abundance of plant species in two of our meadows
- Identify and record plant species using ID charts and keys



- Collect data and learn how to account for some of the factors affecting scientific data collection

### **Ecological Succession Transect**

- Gain an understanding of the process of succession, both primary and secondary, its effects on ecological communities and relevance for conservationists & habitat managers.
- In one of our meadows, use quadrats to conduct a **belt transect** to determine the effect of soil depth on the abundance of a plant species or the composition of the community as a whole
- Identify and record plant species
- Collect data and learn how to account for some of the factors affecting scientific data collection
- Discuss results- conclusions drawn, original hypothesis, expectations, reliability, possible methodical improvements

**Note:** This activity can be adapted to include other abiotic factors and cover **AQA Biology Practical 12** – ‘Investigation into the effect of a named environmental factor on the distribution of a given species’

### **Plants combination:**

- Get experience of both a **belt transect** and **random sampling** as one activity.
- One meadow is sampled using each method, meaning statistical comparison is not possible with this option.

### **Motile Population Sampling**

- Use sweep nets and beat trays to sample invertebrates in a meadow.
- Use species ID guides and simple keys to identify invertebrate species.
- Collect data and learn how to account for some of the factors affecting scientific data collection.
- Make the distinction between sampling to measure diversity and sampling to measure abundance.
- Discuss the difficulty in sampling to measure abundance in motile species.
- Illustrate the **Mark-release-recapture** technique with a huge game of hide & seek!
- Use the mock data from the game to estimate the class size (a.k.a. population size) using the Lincoln Index.
- Discuss some of the assumptions made when using the MRR method.

### **University guided walk:**

Our university guided walks are usually 2 hours in length. Please specify what time of day you would like your walk to be.

When completing our online form, please give an indication of the subjects you would like our leader to focus on e.g. site history, habitats and designations, conservation management, wildlife (birds, plants, insects etc.)