

## **Putting animals into groups**

Key Stage 3 and 4

### **Learning objectives**

To describe the characteristics of the 5 vertebrate groups

To recall how animals are classified (Kingdom, phylum, class, order, family, genus, species)

### **Session content**

This 40 minute session looks at the need for a classification system. It explores the main characteristics of vertebrate groups, with a brief look at invertebrates. A variety of biofacts (skins, skulls, bones etc.) many on loan from H.M. Customs and Excise are used to illustrate the talk and live animals may also be shown.

### **Learning outcomes**

At the end of this session...

- Most students will be able to describe at least 3 characteristics of animals in each of the 5 vertebrate groups giving an example species for each. Students will recall that animals are split into groups of related animals and may be able to name some of the group titles e.g. phylum.
- Some students may have progressed further and will be able to confidently describe the characteristics of the 5 vertebrate groups giving examples and will be able to place named species into the correct vertebrate group. Students will also be able to recall how animals are classified naming most of the levels of the classification system.
- Some students may not have progressed as far and will be able recall some of the characteristics of the 5 vertebrate groups.

### **National Curriculum**

- **KS3 Science 3.3d** – all living things can be classified

### **GCSE Specification links**

- **Edexcel Science 360 B1a:** 1.11 Explain the principles of classifying organisms and the difficulties encountered in attempting to do so as illustrated by the five kingdoms, the use of phylum, class, order, family, genus, species and the main characteristics of the five vertebrate groups.
- **OCR Gateway Science B:** B2b Describe the difference between vertebrates and invertebrates.

**Other links:** BTECs in Additional science

### **Assessment opportunities**

Students' understanding can be assessed through their verbal contributions, questioning and their participation during sorting activity.

### **Session suitability**

The session is presented verbally and supported with text and images projected onto a screen. It is possible to provide individual materials for any partially sighted students. During the sort activity students will work in mixed ability groups using information cards and biofacts to identify the characteristics of one of the 5 vertebrate groups. Skins are used during the session so it is therefore important to consider students with allergies to hair.

When possible live animals are part of the session, although this cannot be guaranteed. Children and adults with poor immunity for any reason should avoid contact with these animals, as should pregnant women. It is very important that Zoo staff be aware of these individuals: please speak to the Education Officer before the session begins if this applies to anyone in your group.

### **Additional information**

We would like to know in advance if any members of your class have learning, physical or sensory difficulties, allergies or illness which might affect their enjoyment of the session. It is usually possible to tailor the session should your group have any special requirements. Please call 01582 871330 at least 2 weeks in advance of your visit to discuss the best way to do this.

### **Suggested activities:**

#### **Before the visit**

- Students should understand the vocabulary listed below:
  - Classification
  - Vertebrates
  - Species
  - Mammals
  - Reptiles
  - Fish
  - Birds
  - Invertebrates
  - Amphibians
  - Vertebrates

#### **During the visit**

- The Discovery Centre has examples of invertebrates, fish, amphibians, reptiles and mammals all in close proximity of each other. While going round the Discovery Centre students have the opportunity to identify live animals and classify them.
- There is a self guided trail available on the website which could be completed after this classroom session.

#### **After the visit**

- Please complete a feedback form (available from the session or from our website) help us to improve the programme offered to schools.

### **Useful websites**

ZSL Whipsnade Zoo – [www.zsl.org](http://www.zsl.org)

Discovery School – [www.discoveryschool.com](http://www.discoveryschool.com)

Kidport – [www.kidport.com/RefLib/Science/Animals/Animals.htm](http://www.kidport.com/RefLib/Science/Animals/Animals.htm)

BBC Bitesize revision site - [www.bbc.co.uk/schools/revision](http://www.bbc.co.uk/schools/revision)