

# KEY STAGE 2 YEAR 6



## EDUCATIONAL TALKS INFORMATION

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### Educational Talks

We currently offer the following talks to pupils in KS2:

African Animals

Classification

Evolution

Habitats and Adaptations

Life Cycles

Predators and Prey

Rainforests

Reptiles

World of Plants

During the talk the keeper will take you round to visit three or four different animals so that the children get to see a variety of species. This allows for a discussion of similarities and differences between the animals. The children will have the opportunity to ask and answer questions relating to the animals that they can see.

The group size for talks will be limited to 20 children, so you may be given separate times for the same talk if your group is larger than 20 children. This is to ensure that all the children taking part get the most out of the session.

Talks generally last around 30 minutes and will take place out in the Park in all weathers; please ensure that your pupils wear suitable clothes for the conditions. They are generally delivered by the keepers and may vary slightly between different staff members.

Unfortunately, we cannot guarantee which animals you will see during your talk, but you will get to learn more about three or four different species during your talk as the keeper takes you to visit their enclosures.

**Please note:** our school talks do not involve any hands-on contact with the animals.



## Talk Details

### African Animals

A great opportunity to find out more about the animals in the Park that are native to Africa. During the talk, you will visit a variety of species and discuss the similarities and differences between them. The keeper will explain what they eat, what their natural habitat would look like and what their typical behaviour is. We will touch on features of predators and adaptations that the animal might have to help them survive in their habitat in Africa.

### Classification

Classification is the grouping of plants and animals so that we can identify them quickly. The animal kingdom is usually split into two main groups – those with and those without backbones (vertebrates and invertebrates). This talk will mainly focus on the five main vertebrate groups: fish, amphibians, reptiles, birds and mammals. We will visit three or four animals and talk about the group they belong to, any adaptations of that animal and discuss what makes each group unique.

### Evolution

Evolution is where species of all living things have changed and adapted over time. Many theories have been developed for how evolution occurs but the most widely accepted theory is Darwin's Theory of Evolution by Natural Selection. This is where individuals in a species show a wide range of genetic variation. Some of the individuals will therefore be better suited to the environment than others and so will be more successful in passing on their genes. This causes a gradual and continuous change in a species so that it evolves to perfectly adapt to its environment. In this talk we look at some different animals we have here at the Park and how they have evolved to be perfectly adapted to their environment. We will look at a group of animals and discuss where different species diverged and how this happened, whether it be by specialised diets, habitats or behaviours.



## Habitats and Adaptations

Over a long period of time animals have developed special features that help them to survive in their environment, an adaptation. In our Habitats and Adaptations talk, we will visit some animals from different habitats and take a look at the adaptations they have that help them to survive there. The animals that you see during your talk will vary depending on the keeper who delivers the talk and the section they work on; however, we aim to include animals that come from a variety of habitats such as grasslands, rainforests, deserts or rivers.

## Life Cycles

All animals are born, grow, reproduce, and eventually die this is called a life cycle. This talk explores a selection of animals and looks at how they grow and develop and how we care for them. During the talk, you will take a look at some of our animals that perhaps have a more unusual life cycle as well as those that follow a more typical life cycle similar to humans.

## Predators and Prey

In this talk, we will be looking at different predators and prey and look at the adaptations they have that help them to survive in their environments. We will discuss differences in senses, teeth, feeding techniques, bones, digestive systems, and behaviour that assist in life as the hunter or the hunted. We will touch upon food chains and the importance of predators and prey living together in one habitat.

## Rainforests

Rainforests are found throughout the world with 70% of all known plant species and 50% of all known animal species living in these forests. However, the rainforests only cover 5% of the land surface of the planet. The warm and moist climate means they are an easy environment for plants and animals to live in. During the talk, we will look at a variety of animals that would live in the rainforests and how they survive there. We will talk about the importance of rainforests and how they support the animals and plants that live in them.



## Reptiles

This talk will look at the different types of reptiles including; snakes, lizards, caiman, and tortoises. The keepers will discuss the similarities and differences between varying reptile species and with each reptile, we will look at what they eat, where they live and what they need in order to survive. This talk will also touch on life cycles and the changes some reptiles go through as they grow. Finally, we may look at ways that they may protect themselves through camouflage, colouration and even venom!

## World of Plants

There are estimated to be over 400,000 species of plants worldwide which form the basis for life on Earth. Our World of Plants talk takes a look at just some of the ways that plants provide life, through flowers, food, oxygen and the regulation of the water cycle. Everything we eat comes directly or indirectly from plants. Throughout human history, approximately 7,000 different plant species have been used as food by people in the forms of fruit, grains and vegetables.

In this talk, we examine some of the food plants that we can grow here at the Park and we may also discuss plants that can be used for other uses such as shelter, fuel, latex, clothing and pigments. The talk will also discuss some of the more unusual plants at the Park from carnivorous plants to plants that were alive when the dinosaurs roamed the Earth!

## Resources:

If you decide to book a talk for your educational visit, we have created some free digital resources that will be made available to you ahead of the visit. These resources are comprised of a pre-visit and post-visit session guide, which includes general information and questions about the animals we have here at the Park that link to the talk you have booked with us, as well as some activity ideas or printable pages that the children can do with an adult or independently.



## Year 6 learning outcomes

Below are the National Curriculum requirements for Year 6 and the educational talks we offer that are relevant to those outcomes.

### Living things and their habitats

#### Statutory requirements

Pupils should be taught to:

- describe how living things are classified into broad groups according to common observable characteristics and based on similarities and differences, including micro-organisms, plants and animals. ([Classification](#), [Habitats and Adaptations](#), [Life Cycles](#), [World of Plants](#))
- give reasons for classifying plants and animals based on specific characteristics. ([Classification](#), [World of Plants](#))

#### Non-Statutory guidance

Pupils should build on their learning about grouping living things in year 4 by looking at the classification system in more detail. They should be introduced to the idea that broad groupings, such as micro-organisms, plants and animals can be subdivided. Through direct observations where possible, they should classify animals into commonly found invertebrates (such as insects, spiders, snails, and worms) and vertebrates (fish, amphibians, reptiles, birds and mammals).

They should discuss reasons why living things are placed in one group and not another.

Pupils might find out about the significance of the work of scientists such as Carl Linnaeus, a pioneer of classification.

Pupils might work scientifically by: using classification systems and keys to identify some animals and plants in the immediate environment. They could research unfamiliar animals and plants from a broad range of other habitats and decide where they belong in the classification system.



## Animals, including humans

### Statutory requirements

Pupils should be taught to:

- identify and name the main parts of the human circulatory system, and describe the functions of the heart, blood vessels and blood.
- recognise the impact of diet, exercise, drugs and lifestyle on the way their bodies function.
- describe the ways in which nutrients and water are transported within animals, including humans. ([Habitats and Adaptations](#), [Rainforests](#))

### Non-Statutory guidance

Pupils should build on their learning from years 3 and 4 about the main body parts and internal organs (skeletal, muscular and digestive systems) to explore and answer questions that help them to understand how the circulatory system enables the body to function.

Pupils should learn how to keep their bodies healthy and how their bodies might be damaged – including how some drugs and other substances can be harmful to the human body.

Pupils might work scientifically by: exploring the work of scientists and scientific research about the relationship between diet, exercise, drugs, lifestyle and health.



## Evolution and inheritance

### Statutory requirements

Pupils should be taught to:

- recognise that living things have changed over time and that fossils provide information about living things that inhabited the Earth millions of years ago.
- recognise that living things produce offspring of the same kind, but normally offspring vary and are not identical to their parents. (Evolution, World of Plants, Life Cycles, Reptiles).
- identify how animals and plants are adapted to suit their environment in different ways and that adaptation may lead to evolution. (African Animals, Evolution, Habitats and Adaptations, Rainforests, World of Plants).

### Non-Statutory guidance

Building on what they learned about fossils in the topic on rocks in year 3, pupils should find out more about how living things on earth have changed over time. They should be introduced to the idea that characteristics are passed from parents to their offspring, for instance by considering different breeds of dogs,

and what happens when, for example, Labradors are crossed with poodles. They should also appreciate that variation in offspring over time can make animals more or less able to survive in particular environments, for example, by exploring how giraffes' necks got longer, or the development of insulating fur on the arctic fox. Pupils might find out about the work of palaeontologists such as Mary Anning and about how Charles Darwin and Alfred Wallace developed their ideas on evolution.

**Note:** At this stage, pupils are not expected to understand how genes and chromosomes work.

Pupils might work scientifically by: observing and raising questions about local animals and how they are adapted to their environment; comparing how some living things are adapted to survive in extreme conditions, for example, cactuses, penguins and camels. They might analyse the advantages and disadvantages of specific adaptations, such as being on two feet rather than four, having a long or a short beak, having gills or lungs, tendrils on climbing plants, and brightly coloured and scented flowers.

