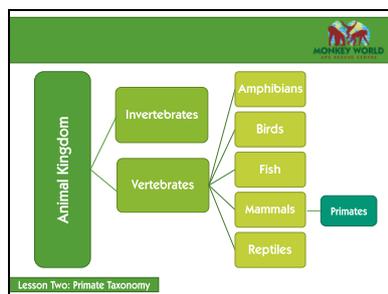


Slide 1



Welcome back to Monkey World's home education course. In our last lesson we found out what makes an animal a primate. In today's lesson we will be looking more closely at the primate family, and learning the differences between apes, monkeys and prosimians!

Slide 2

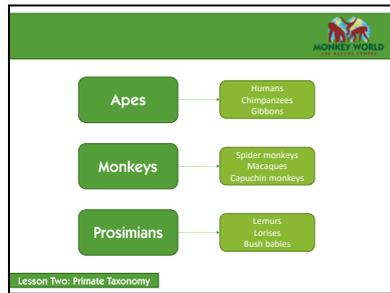


Taxonomy is the scientific word for classification. All of the animals in the world can be classified into different groups, based on their differences and similarities. All animals are classified as either vertebrates or invertebrates – animals with a backbone, and animals without a backbone.

Vertebrates are classified into five categories: amphibians, birds, fish, mammals and reptiles.

These five categories contain lots of different groups of animals but we are focussing on primates, which are mammals as we learnt in our last lesson.

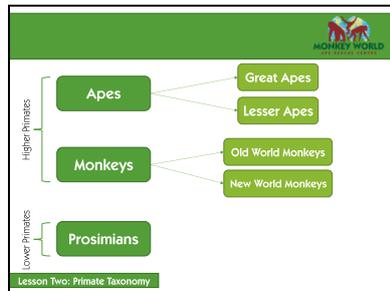
Slide 3



The primate family contains around 235 species, and can be split into three main groups: apes, monkeys and prosimians.

The ape family contains primates such as humans, chimpanzees, and gibbons. The monkey family contains primates such as spider monkeys, macaques and capuchins. And the prosimian family contains primates such as lemurs, lorises, and bush babies (also known as galagos).

Slide 4



Apes and monkeys are referred to as the Higher Primates, whereas prosimians are referred to as the Lower Primates. There are around 60 species of prosimians, or Lower Primates, and the other approx. 175 species are Higher Primates.

Apes and monkeys can be grouped even further. As well as learning the difference between apes, monkeys and prosimians, we will also learn the difference between Old World Monkeys and New World Monkeys, and Lesser Apes and Great Apes.

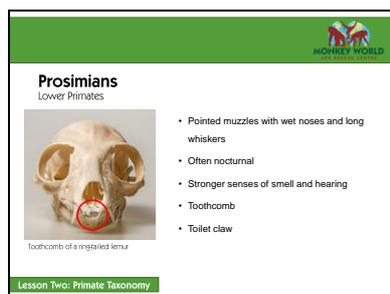
Slide 5



The primates in the prosimian family are often mistaken for monkeys, but they look and behave differently from the rest of the primate family. Species of prosimians include lemurs, lorises, galagos, pottos, and tarsiers. Prosimians are known as the lower primates as they resemble some of the earliest primates to evolve, and are not as developed as monkeys and apes.

Look at the pictures of different prosimians. Can you spot anything that makes them look different to monkeys and apes?

Slide 6



Prosimians rely on their senses of smell and hearing more than their vision, unlike the Higher Primates. Most prosimians are nocturnal, so stronger senses of smell and hearing allow them to travel, find food, and stay safe in low light. *Did you know that there are **no** nocturnal species of apes, and there is only **one** nocturnal species of monkey – *douroucoulis*, also know as owl monkeys or night monkeys!*

As they rely more on their sense of smell, prosimians have pointed muzzles with long whiskers and wet noses.

They even communicate using smells, and have scent glands near their genitals. The ring-tailed lemurs at Monkey World can be seen having “stink-fights”, where the lemurs rub their tails over their scent glands, then waft their tails (and scents!) at each other to determine who is dominant.

They also have a toothcomb! Their lower incisors and canines form a natural comb, used to groom themselves and each other.

They also have a “toilet claw” for grooming on the second digit of the foot, but nails everywhere else.

Slide 7



All monkeys are higher primates. Generally, monkeys have long tails, and have arms and legs that are the same length. All species of monkey, except one, are *diurnal* which means they are active during the day and sleep during the night. Monkeys rely more on their vision and less on their sense of smell than prosimians.

Saki monkeys, capuchins, macaques, spider monkeys and capuchin monkeys are all monkey species that live at Monkey World.

Monkeys can be divided and classified as either New World Monkeys or Old World Monkeys.

Slide 8

New World Monkeys
Higher Primates

- Only found in Central & South America
- Live almost completely in the trees
- Nostrils that face sideways
- Furry bottoms with long tails
- Some have prehensile tails
- Some swing under branches



Woolly monkeys using their prehensile tails to hold onto hoses

Lesson Two: Primate Taxonomy

New World Monkeys are only found in Central and South America – there are no apes or prosimians on the continent, just monkeys! New World Monkey species include woolly monkeys, spider monkeys, howler monkeys, marmosets, tamarins and capuchins.

- They live almost completely in the trees and so are adapted for an **arboreal lifestyle**
- Their noses point out sideways, not downwards
- They have furry bottoms and long tails
- Some of the bigger New World Monkeys have **prehensile tails**, like woolly monkeys and spider monkeys. A prehensile tail can grip and support the monkey's weight. They use them as an extra limb while climbing, and can even pick up objects with them!
- Some New World Monkeys also hang and swing underneath branches, as well as walking on the tops of the branches.

Slide 9

Old World Monkeys
Higher Primates

- Found only in Africa and Asia
- Adapted to live on the ground and in trees
- Nostrils that face downwards
- Hairless, hard pads on their bottoms
- Some have cheek pouches
- Never swing under branches



Stump-tailed macaque with full cheek pouches

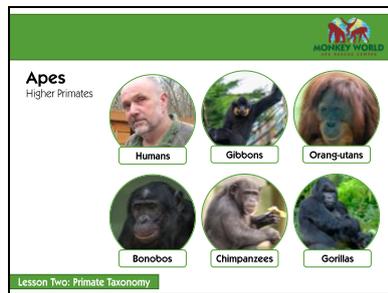
Lesson Two: Primate Taxonomy

Old World Monkeys are found in Africa and Asia, and include species such as macaques, baboons, mandrills, patas monkeys and langurs.

- They are adapted for a more ground-dwelling, or **terrestrial**, lifestyle.
- Their nostrils point downwards, not out to the sides
- They have hard, hairless pads on their bottoms – *can you think why they have this adaptation? [To make sitting on the ground more comfortable]*

- Some have cheek pouches so they can store their food – *why might they need to store their food in their cheeks? [So they can keep it away from other monkeys, or so they can take it with them if they have to run from a predator]*
- Old World Monkeys only ever walk on top of branches, and never swing underneath them.

Slide 10



The ape family is made up of humans, chimpanzees, gorillas, bonobos, orang-utans, and gibbons. Apes differ from monkeys in several important ways:

- They don't have tails
- They have a more upright posture
- Their shoulder blades are at the back, not at the sides
- They have a short, broad nose instead of a snout
- They have fewer offspring than monkeys. They are born more helpless and take longer to mature.

Apes can be divided into two families – lesser apes and great apes

Slide 11

Lesser Apes
Higher Primates

- More slender
- Longer canine teeth
- Hard pads on their bottoms
- Form pair bonds



Lesson Two: Primate Taxonomy

A siamang gibbon in the trees

The lesser apes are gibbons. The word “lesser” suggests that gibbons evolved slightly differently than the great apes, as they are very similar to the great apes – they have no tails, they have short noses, their shoulder blades are on their backs – there are also some key differences.

- Gibbons are smaller and more slender
- They have longer canine teeth
- They have hard pads on their bottoms – an adaptation for sitting on branches
- Gibbons also form pair bonds with a mate, unlike other apes

Slide 12

Great Apes
Higher Primates

- Larger bodies
- Bigger brains
- Bigger differences between males and females
- Build and sleep in nests



Lesson Two: Primate Taxonomy

An adult male orangutan with fully developed cheek pad

The great apes are humans, chimpanzees, orang-utans, bonobos and gorillas. They are the biggest and most intelligent of all of the primates.

- Their bodies are big, with broad chests and shoulders
- They have bigger brains than any other primates
- There are bigger physical differences between the males and females – this is called **sexual dimorphism**. The males are often much larger than the females, and in orang-utans males develop large, fatty pads on their cheeks when they reach adolescence.
- Unlike any other primates, great apes build nests to sleep in.

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Humans
Higher Primates

Monkey World directors Dr. Alison Crain and Jeremy Keating wearing the K9CA

Lesson Two: Primate Taxonomy

Humans are very different from the other great apes. We have a completely upright, or *bipedal* posture, we are not covered in fur, and our big toe isn't opposable. Our brain is extremely large and bulbous and our digestive system is adapted to eat the widest range of foods. We also have different cultures, customs and spoken languages, which is entirely unique to us.

Slide 14



Recap!

Primates can be classified into three main families:

- Apes
- Monkeys
- Prosimians

Monkeys can be grouped into New World Monkeys and Old World Monkeys.

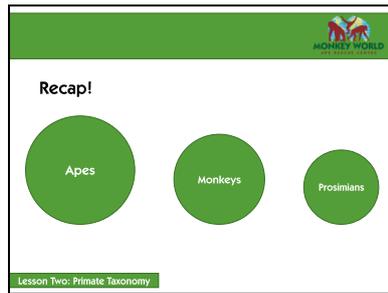
Apes can be grouped into Lesser Apes and Great Apes.

Lesson Two: Primate Taxonomy

Let's go back over what we've learnt. The primate family is split into three main categories: apes, monkeys and prosimians. All primates are classified as one of these three. Two of these categories can be divided further: the monkeys and the apes. Monkeys can be grouped into New World Monkeys and Old World Monkeys, and apes are grouped as Lesser Apes and Great Apes.

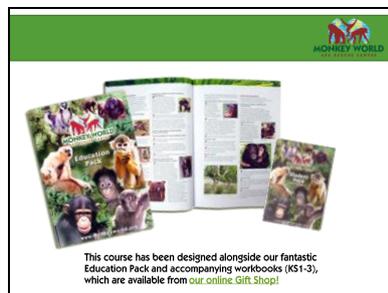
Look at the picture of the marmoset – how can you tell if it is a New World or Old World Monkey? Hint: look at the nostrils! New World Monkeys have sideways facing nostrils, and Old World Monkeys have downward facing nostrils.

Slide 15



Primates are classified into these groups depending on their similarities and differences. Apes are the largest, most upright and don't have tails. Monkeys walk on all fours, have long tails, and have short snouts. Most prosimians are nocturnal, they have pointed, wet noses with whiskers, and rely more on their sense of smell.

Slide 16



These lessons have been designed alongside our Education Pack which is full of comprehensive information on primate classification, habitats, family groups, diets and more. It is perfect for learning more about primates at home! It is available from our online Gift Shop, along with curriculum-linked workbooks available in Keystages 1, 2 and 3!