

KS3 & KS4 Lesson Plan: Evolution and Variation

A lot has changed in the 13.8 billion years since the universe began! See if you can work out why some of our animals have evolved to look so different over time

SNOW LEOPARDS & TIGERS

Despite the name, snow leopards are more closely related to tigers than they are to leopards. They come from the Himalaya mountains in Asia. Their fur helps them to keep warm and the colouration allows them to camouflage. Sumatran tigers are from the rainforests in Sumatra, Indonesia. Their stripes help them to hide amongst the vegetation.



HUMANS & CHIMPANZEES

Humans shared a common ancestor with chimpanzees that lived around 5-8 million years ago. Along with bonobos, they are our closest living relatives. Much stronger than humans, chimpanzees are excellent climbers and will climb up trees in the African forest to find vegetation to eat, catch prey, and to nest. Their dark fur helps them to camouflage in the canopy and understory of the forest.



RED RUFFED LEMURS & RING TAILED LEMURS

There are around 100 species of lemur and all of them are endemic to Madagascar. Red ruffed lemurs are one of the largest species of lemur. They mostly live in the canopy, and their long tails help them to balance when climbing and jumping. Ring tailed lemurs are probably the most recognisable of the lemur species. They are also fantastic climbers, but spend a lot of time on the ground too. When walking on the ground, their famous ringed tails stick upright in the air and help them to see each other.



There are now 7.7 billion people on the Earth, due to this and the resources we use we are causing the threats that these animals face. Therefore it is our moral responsibility to ensure we are living sustainably as possible and to check where we are getting our resources from. There are lots of simple ways that you can do this that will make a big difference to our environment.

Just look out for the following logos when you are out shopping.



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Twycross Zoo
IN THE HEART OF CONSERVATION



Evolution, Variation and Extinction

Using our website, or the IUCN Red List of Threatened Species:

Can you find a species that is classified as **Near Threatened** ?

What threats does this animal face in the wild ?



Can you find a species that is classified as **Vulnerable** ?

What threats does this animal face in the wild ?



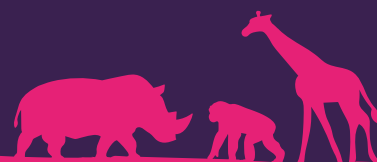
Can you find a species that is classified as **Endangered** ?

What threats does this animal face in the wild ?



Can you find a species that is classified as **Critically Endangered** ?

What threats does this animal face in the wild ?



Divergent Evolution

Some species are closely related but they have gradually evolved into separate species, such as bonobos and chimpanzees. We call this 'divergent evolution'. Can you identify these Twycross Zoo animal relatives below?
Why do you think they have evolved differently?



1.

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2.

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3.

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