Hands On Learning
with Reading Museum Service

SNAKES Z27

Snakes are long-bodied, limbless reptiles closely related to lizards.

This box contains three examples of snakeskins, a snake egg, a skull, a backbone and the rattle from a rattlesnake.

Vertebrae

Snakes have many more bones in their spine (vertebrae) than other animals. There can be as many as 300 vertebrae in one snake. In a living snake, there are two ribs attached to each vertebra. The spine is light and flexible so that the snake can move quickly and easily, which it does by contracting groups of muscles on either side of its body. Most snakes (except for the boa family) have only one lung and all the other organs are long and thin to fit in their bodies.



Skull

Some snakes use a venomous bite to kill prey while others squeeze prey to death by wrapping themselves around it. This is known as constriction. The skull in this box is from a large poisonous snake. It has two sets of fangs so that it can inject its victim with double the amount of venom (poison).



On this skull you can see rows of teeth, which are used to grip the prey. They are not used for chewing as snakes swallow their prey whole and sometimes alive. You can see from this example that a snake's jaw is very large when compared to its overall size and is also very flexible. Some large species can open their mouths so wide that they are able to swallow whole animals that are far bigger than the snake's head.

Snakes do not have ears. They hear by picking up vibrations in the bones of the skull.

Reading Borough Council

Heritage Lottery Fund

Hands On Learning
with Reading Museum Service

SNAKES Z27

Skin Cast

Snakes shed their skin several times a year. The snake wriggles out of the skin so that it remains in one piece, like taking off a sock. This process allows the snake to grow and also removes any parasites.



The skin is covered in rows of scales. The larger scales on the underside of the body help the snake to move by gripping surfaces. There is one thin, transparent scale covering the eye for protection. This is shed with the rest of the skin otherwise the snake will grow a new scale over the top and become blind.

Skin of a Python

This roll of skin is from a python that was found in Ghana, West Africa.



Different species of python can be found all over Africa, Australia, Asia and the South Pacific Islands. The reticulated python, found in South Asia, is one of the largest snakes in the world. It can grow up to 9 metres long!

Pythons are not venomous and use constriction to kill their prey. They are expert swimmers and climbers, which makes it easier for them to hunt. Some of the largest pythons can kill and eat crocodiles, pigs and antelopes.

Egg

Some snakes such as boa constrictors and rattlesnakes give birth to live babies, but most lay eggs. The eggs can be various shapes and sizes. This one is oval and smooth but some can look like bumpy potatoes. The babies break out of the egg with a special egg tooth, which they lose after hatching. In some species the parents look after the eggs by wrapping their bodies around them, but none look after the babies once they hatch.



Hands On Learning
with Reading Museum Service

SNAKES Z27

Rattle

The rattlesnake is a very poisonous member of the viper family and sometimes kill humans. It uses a rattle as a warning when it feels threatened. The rattle is made from segments of dry, hollow skin, which make a noise when the snake shakes its tail very quickly. If you move this box from side to side very gently you can see how the segments move. Rattlesnakes can grow to 2.5 metres and live in North America.



Adder Skin

There are not many reptiles native to Britain due to the cold, damp weather, but you can find three types of snake: the grass snake, smooth snake and the adder. The skin in the flat display box is from an adder, which is a member of the viper family.

The adder can grow to 90cm long and is the only poisonous snake in Britain, although it very rarely attacks people. It is the only snake found in Scotland, which shows that it is able to adapt to harsh conditions. Snakes need energy from the sun to move and hunt so all British snakes hibernate from October until spring to conserve energy.

Adders prefer open land like fields and moors because this is where they find most of their food. Their main prey includes mice, frogs, newts and birds.

The patterning on the skin is perfect for blending into the snake's surroundings and acts like a camouflage. Female adders are usually lighter in colour than the males, but it can be hard to tell the difference.

The best time of year to spot an adder is in the spring when they come out of hibernation and sunbathe on rocks to gather energy.



Did you know?

The largest snake in the world is the anaconda. The biggest one ever recorded was 11.5 metres long.

Some islands such as Ireland and New Zealand don't have any snakes at all.

Some snakes can fly! They flatten their bodies and glide from tree to tree. They slither in mid-air to change direction.

More people die of lightning strikes than snakebites.