Leith Hogan and Rachel Sheffield December 2020



What do we know about pangolins?





An integrated Art/ craft /Science project for classrooms : Students will create a jungle habitat featuring the animals, insects and characteristics of the Pangolin based upon The Pangolin Classroom activity pack for Educators created by the World Wildlife fund. www.wwf.org.uk. Resources: You will need an empty photocopy box, coloured card, crayons, felt tipped pens, glue or staples and clay or Fimo clay, knife, marking tools. You will also need access to texts or images of pangolins and jungle animals. There are several chilo learn logoen's texts and images on websites: WWF [www.wwf.org.uk] Save the pangolins [www.savepangolins.org and the ICUCN SSC Pangolin [www.pangolinsg.org]

What do we know about pangolins?



They are **nocturna**l and use their strong sense of smell helps them to find insects in the dark. Their style of walking involves bending their front claws under the foot pad. Some of them can also walk bipedally (on two feet) for some distance.

They are the only mammals who have scales.

They do not have teeth.

They have a very strong swimming ability.

When they perceive danger, they can curl up in a ball.

If they are unable to curl up into a ball, they have the ability to cut potential predators with their sharp scales.

The smallest of species, the long-tailed pangolin, is only around 30 cm (11 inches) long. However, the largest of species, the giant pangolin, is an average of 1.8 m (5.9 feet) long. They are extremely ill-suited to be kept in captivity. These creatures are not only odd looking and quite rare, they are also uniquely adapted as well. These are more than just a highly trafficked endangered animal. In fact, you may be surprised by its daily life!

Wake Up and Snack - These armored little animals are also known as "scaly <u>anteaters</u>," and for good reason. Pangolins spend their nights foraging for ants, and they can eat as many as 20,000 ants in a night.

Do Slurp Your Food – When feeding, these animals use their 16-inch long tongue to slurp up ants. They have no teeth, so they <u>swallow</u> their insect prey whole. Pangolins will <u>swallow</u> small stones to grind food in their stomachs, since they can't chew their food.

One of a Kind – While many other mammals are "armored" in some way, pangolins are the only mammals that grow scales. Their scales are very different from reptile scales in structure, and they are 100% unique among mammals.

What Stinks? - In addition to their armor, pangolins possess scent glands near their anus. When in danger, or while marking their territories, they release a foul-smelling chemical from that gland. This mechanism is quite similar to a <u>skunk</u>'s spray.



Habitat of the Pangolin

Pangolins like sandy habitats, such as savannas and wooded areas. They tend to remain close to water sources. There are some species of this enigmatic animal that are arboreal, which means that they live and hunt in trees.

Distribution of the Pangolin

There are eight different species of pangolin, and their natural habitats range from central and southern Africa, to India and Asia. Four species are native to Africa, one species is native to India, and three species are native to various parts of Asia.

Diet of the Pangolin

The vast majority of pangolins' diets consist of ants and termites. They will also eat the larvae of other insects when presented the opportunity, but dedicate most of their foraging time to finding ants and termites.

Pangolins in each region will stick to mostly one or two species of insect, and eat those exclusively. They use their strong front claws to tear open termite mounds, and their long sticky tongues to retrieve the insects.

Pangolin and Human Interaction

These animals have been heavily hunted by humans, causing a sharp decline in their population numbers. They are targeted for their meat and scales. Like many other illegally-trafficked animals, pangolin meat and scales are used in traditional Chinese medicine.

Despite the fact that there is zero scientific research to support the use of these ingredients in traditional Chinese medicine, hundreds of pangolins are killed every year to "cure" various ailments. As a direct result of this poaching, four species of this animal are vulnerable, two are endangered, and two are critically endangered.

Domestication

Pangolins have not been domesticated in any way.

Pangolin Care

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Pangolins are extremely difficult to keep in human care, namely because each animal is very particular about its diet. The <u>Pangolin Consortium</u> has developed an insect-derived diet that has boosted survival rates of the animals in human care. They have even successfully bred them in zoos. There are now fifty African white-bellied pangolins, also known as "tree pangolins," in the program that are thriving and breeding.

Behavior of the Pangolin

Most species of pangolin are nocturnal, only a single species is active during the day. Because they are nocturnal, and relatively shy, researchers know very little about pangolin population numbers or behavior. Arboreal pangolin species will commonly make their homes in hollowed trees. The rest of the pangolin species that live on the ground will dig tunnels to sleep in.

Reproduction of the Pangolin

When female pangolins are ready to breed, they will search for a male's territory. The female reproduces once per year, and usually gives birth to a single *pangopup*. This pup will ride on its mother's back or tail for protection. At approximately three months old the pangopup is weaned from its mother's milk, but will remain with mom until it reaches two years of age.

This information is all taken from The Pangolin Classroom activity pack for Educators created by the World Wildlife fund. <u>www.wwf.org.uk</u>.

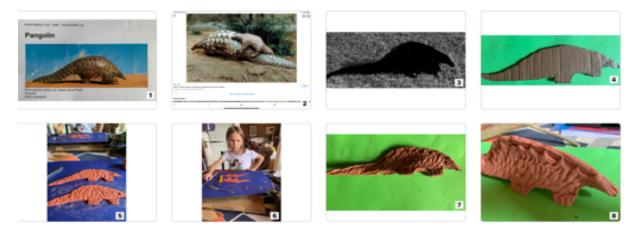
Making a clay pangolin:

Draw the pangolin that you are planning to make:





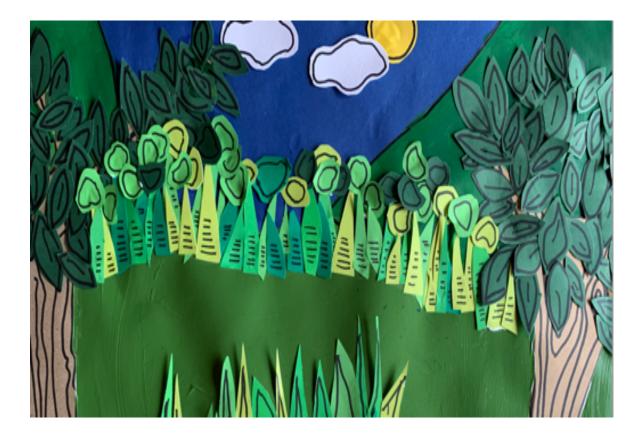
Using clay or fimo clay and clay tools create your pangolin:



Now to create the jungle habitat of the Pangolin in a diorama:

You will need a photocopy box or something similar. Cut the top off the box and paint the sides jungle greens and blues as the background of the jungle scene.

Begin to lay out the scene you want to create on a large sheet of card. Think about the foreground, middle ground and the background with big forest trees and foliage of the Pangolin's jungle habit, and the food chain of the pangolin and how you will create this.





Start to make the jungle scene with the animals that might be in the Pangolin habitat. Think carefully about what might be there. Draw the animals and then create them with coloured card or cardboard. Be careful to replicate their features and shape and work out how you can make them stand in the diorama.





Begin to construct the diorama scene: Position the big trees in the background and populate the middle ground with rocks, leaf litter, grasses and shrubs. Paint a river or a stream on the foreground for the creatures to access water.



Now place the Pangolin into the scene.



Make ants, termites, bugs and insects and a termite mound near the base of one of the big trees for the Pangolin's home and food.



Add another pangolin and perhaps with a pangolin baby on its back to the scene and begin to create a narrative.



We created a text called 'The last pangolin' on the Drawingtolearn website.

Get the children to create their own narrative....using all of the animals, birds and insects that they made in the diorama.

Photograph or video the Pangolin narratives that the children create and get them to share their creations with each other.

