

Testudines inspired the ancient roman military:

During sieges, soldiers would get in testudo formation, named after the Latin word for tortoise. The men formed rows and held shields in front or above them to completely shelter the unit.



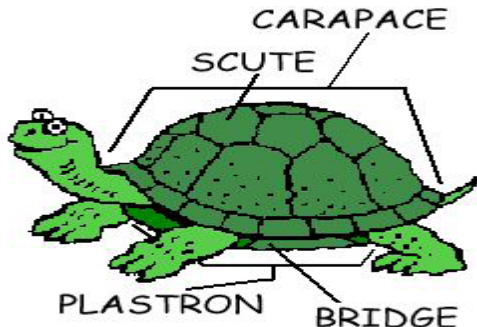
They have an endoskeleton and an exoskeleton:

The shell has three main parts: the top carapace, the bottom plastron, and the bridge that fuses these pieces together. You can't see them, but every testudine has ribs, a collar bone, and a spine inside its shell.



The scales on the carapace are called scutes:

Made of the same keratin found in fingernails and hooves, scutes protect the bony plates of the shell from injury and infection. The growth rings around scutes can be counted to determine the approximate age of wild tortoises.



Their shells are sensitive to touch:

Shells have nerve endings, so tortoises can feel every rub, pet, or scratch ... and sometimes they love it.

South Africa's rich diversity:

South Africa, and in particular the Cape, has the richest diversity of tortoises in the world. Of the 40 species of tortoise known, South Africa has 12 species and 2 subspecies. The leopard tortoise is the most wide spread throughout South Africa.

They can smell with their throats:

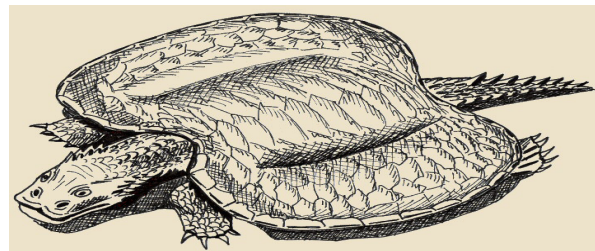
Like other reptiles, tortoises detect the faintest of smells with the vomeronasal organ, or Jacobson's Organ, on the roof of their mouths. However, instead of flicking their tongues, they pump their throats to circulate air through the nose and around the mouth.

Carapaces are not detachable:

You can forget all those cartoons where a turtle jumps naked out of its shell, then dives back in when threatened. The fact is that the shell, or carapace, is securely attached to its body. The inner layer of the shell is connected to the rest of the turtle's skeleton by various ribs and vertebrae.

They have been on earth for a very long time:

Turtles have a deep evolutionary history that extends to a few million years before the Mesozoic Era, better known as the Age of Dinosaurs. The earliest identified Testudine ancestor is a foot-long lizard called Eunotosaurus, which lived in the swamps of Africa 260 million years ago.



Fold or retract the neck?

Of the 5 species of terrapin found in South Africa, those most encountered are the Cape and Serrated Terrapins. Unlike tortoises, terrapins fold their neck and head in sideways (turtles and tortoises retract their necks).



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How to tell the difference:

Turtle, tortoise and terrapin



Turtles, tortoises and terrapins are closely related reptiles of the order Testudines (or Chelonii). Scientific taxonomy uses precise terminology to distinguish different species, but they can also be commonly classified on the basis of habitat, body type and behaviour.

The general rule for differentiation (there are, of course, always exceptions) is as follows: Turtles dwell both on land and in water (saltwater or freshwater, depending on the species); terrapins dwell both on land and in freshwater only; and tortoises are land-dwellers and do not swim. If you think you've got it, consider this...

A TORTOISE IS A TURTLE BUT A TURTLE ISN'T A TORTOISE

This is because a turtle is any shelled reptile belonging to the order Testudines (ie: tortoises, turtles and terrapins). The term 'tortoise' is more specific, referring to land-dwelling turtles.

Adding to the confusion is that these terms of reference differ depending on where you live around the world! For example, in Australia, all of these animals (besides sea turtles), are called tortoises. In the US the term terrapin is very seldom used. But remember - the difference mainly depends on where the reptile lives, what it eats, and the shape of it's shell.

LET'S FURTHER CLARIFY THE DIFFERENCES BETWEEN THE THREE (in South African terms):

Turtles:

Turtles spend most of their lives in the water (often seawater). Because of this, their feet are normally webbed, or in the case of sea turtles, are longer and form flippers. Their bodies are more streamlined than their tortoise and terrapin relatives. Turtles will leave the water to lay their eggs or to bask in the sun when they are cold.

They eat jellyfish, sea sponges, and seaweed and kelp in the ocean. In freshwater, turtles will eat plants, insects, and even small fish.



Terrapins:

Next is the term "terrapin," which is given to turtles that live in the water less frequently and live near brackish, or freshwater sources such as a marshes, dams and rivers. They're a 'middle ground' between a tortoise and a turtle, as they will spend about half of their time on land and half in the water. Their shells also reflect their similarities to turtles and tortoises as they will be a mixture of the streamlined and dome-shaped shells of the turtle and tortoise, respectively. They eat crabs, snails, insects and will occasionally even catch a bird at the water's edge and pull it back into the water.



Tortoises:

These reptiles live only on land and therefore their feet are rounded and more stumpy, which allows them to walk on land and dig burrows for themselves. They will sometimes go in the water to cool off or to drink water, but they are bad swimmers. Tortoises eat low-growing shrubs, grasses, cacti, fruits, and other plants. Their shells have a more pronounced dome shape since they don't need a streamlined shell to swim quickly!



More interesting facts:

All three are cold blooded:

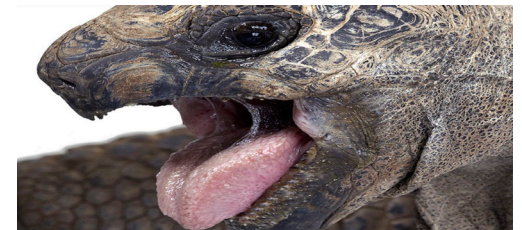
They are ectothermic, which means that their body temperature is based on the temperature of the air or water around them.

Testudines don't have external parts to their ears:

But they do have the same inner ear parts as other animals. Because the outer ear catches sound vibrations and makes them louder, Testudines don't hear airborne sounds as loudly as we do. Instead they feel vibrations in their environment – in the water or on land, and their senses of vision and smell are much sharper than ours.

They have no teeth:

Terrapins and turtles do however have powerful jaws with ridged beaks for crushing crabs, snails and other food. Tortoises, on the other hand, are herbivorous and their beaks have serrated edges for cutting fibrous plants.



The mighty leatherback:

The largest sea turtle species is the Leatherback turtle. It weighs up to 680kg and it's adult length is approximately 1,5m. One of the smallest turtles is the speckled Cape tortoise. Its shell is 8cm long and it weighs about 142 grams.

