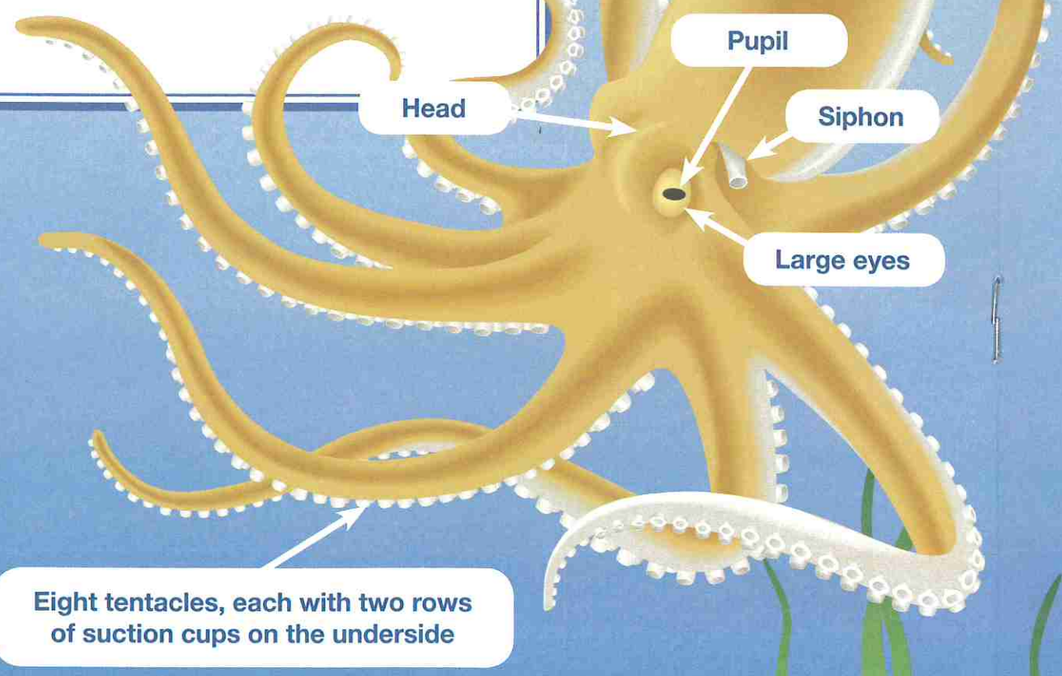
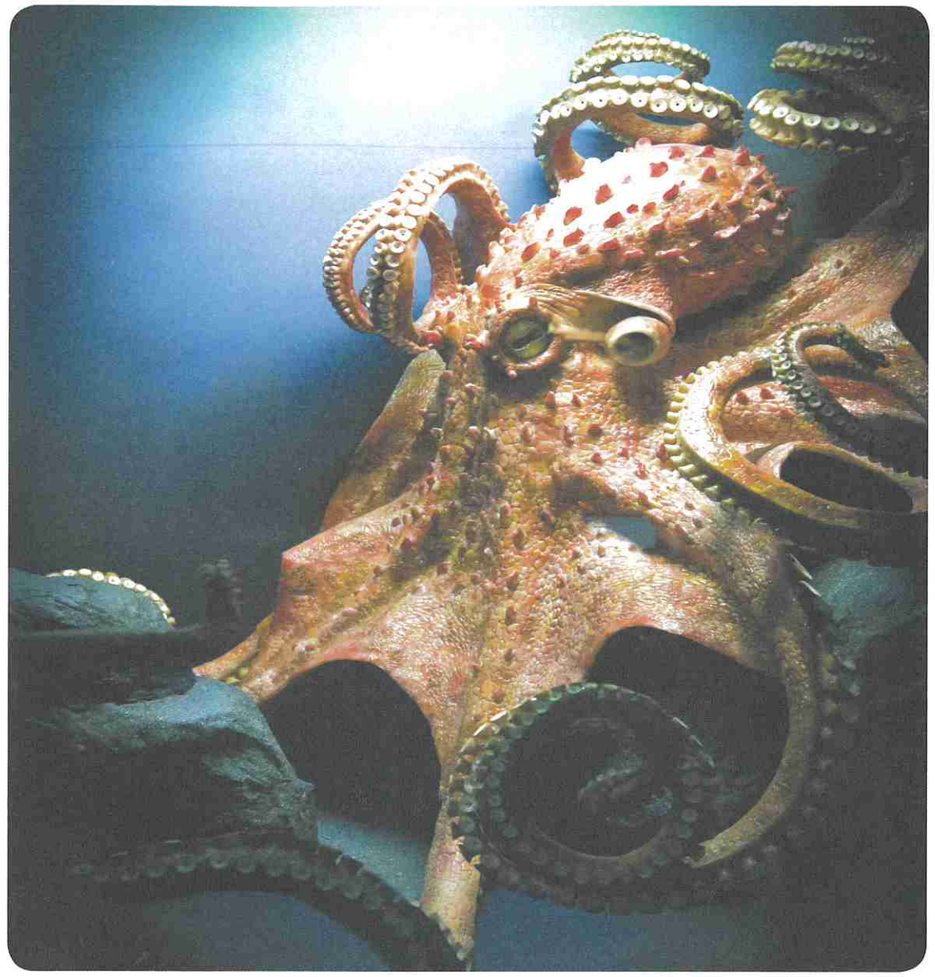
Weird but wonderful...

The Octopus

An amazing body

Octopuses are boneless animals and because of this, their bodies are extremely flexible, allowing them to squeeze through small spaces. To swim, an octopus squirts jets of water through a tube called a siphon. The force of these jets is powerful enough to move the octopus quickly through the water. The octopus travels backwards with its eight tentacles trailing behind it. These tentacles have suction cups, or suckers, with sensors that enable them to 'taste' whatever they touch.





Octopuses have the largest brains of any invertebrate (an animal that does not have a backbone). They can learn and invent solutions to problems. Captive octopuses have been observed to play, repeatedly releasing bottles or toys into a circular current in their tanks and then catching them again. Octopuses often escape from their tanks in search of food and sometimes even break into the tanks of other creatures. They have also been known to board fishing boats and open the cargo hold to eat crabs.

The way the octopus's nervous system is organised means that only part of it is in the brain. The majority of an octopus's nerve cells are actually in its tentacles. This has some curious results: when an octopus's tentacle is cut off, it will crawl away on its own. But that's not all. If this tentacle meets a food item, it will seize it and try to pass it to where the mouth would have been if it was still connected to the body.

Part of body	How many	What it does	Weird but wonderful
Tentacle	8	Catches and chokes prey	The underside of each tentacle is covered in 240 suckers. That means an octopus has a total of 1,920 suckers.
Heart	3	Pumps blood	The blood that each heart pumps is blue.
Eye	2	Sees prey and predators, even in low light	The pupils remain horizontal even if the octopus turns on its side or upside down.

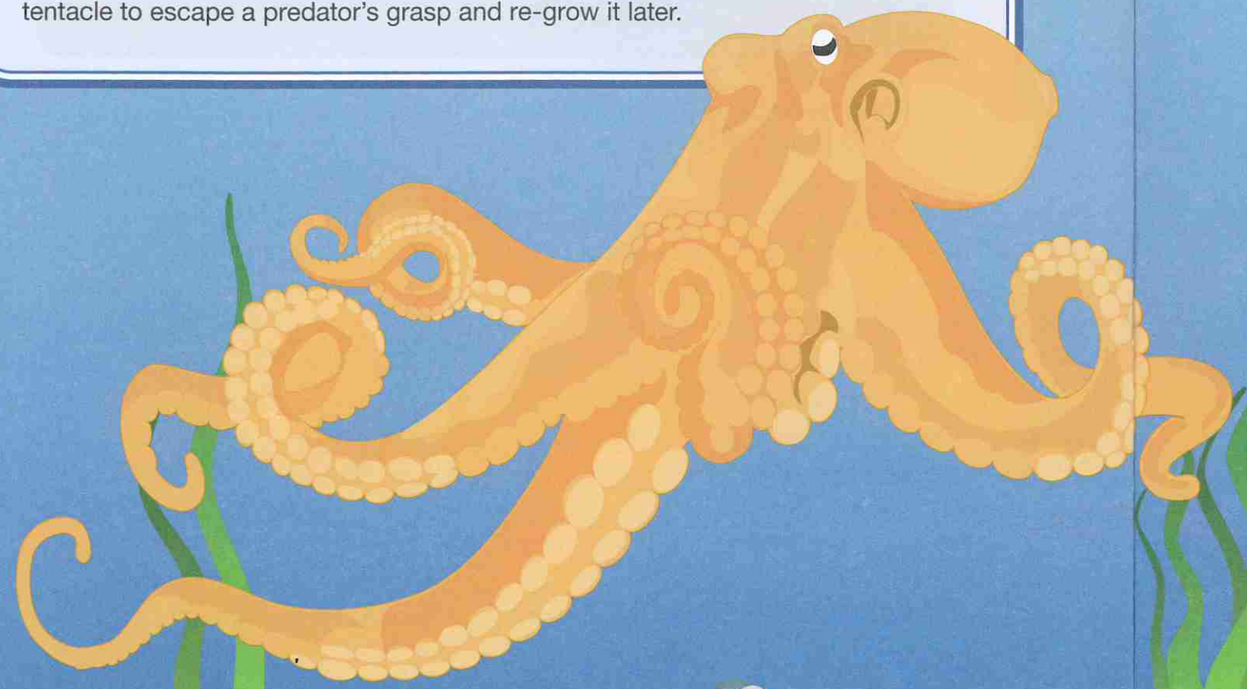
Defence and attack

Octopuses have a number of different ways to defend themselves.

They have a well-developed ability to hide. For example, the common octopus is able to camouflage itself by changing its skin to match the colours, patterns and even textures of its surroundings. Predators such as sharks, eels and dolphins swim by without even noticing it.

When an octopus is discovered, it releases a cloud of black ink. This blocks the predator's view, giving the octopus time to escape. The ink also contains a substance that can reduce the predator's ability to smell, making the fleeing octopus even harder to track.

If necessary, an octopus can squeeze into tiny cracks and crevices where predators can't reach it. If all else fails, an octopus can lose a tentacle to escape a predator's grasp and re-grow it later.



Invertebrate imitators

An octopus in a German zoo learned to open jars of shrimps by copying zoo staff. The octopus, named Frida, opened the jars by pressing her whole body onto the lid and grasping the sides with her eight tentacles. She unscrewed the lid by repeatedly twisting her body. It took Frida anything from ten seconds to an hour to get a lid off, depending on how tightly it had been screwed on.

Octopus facts

Type of animal
Invertebrate (no backbone)

Diet
Carnivore: crabs, crayfish, shellfish

Average lifespan in the wild
1 to 3 years

Largest octopus
Giant Pacific Octopus
Weighs up to 70kg (close to the weight of an average person)
Measures 7.5m from tentacle tip to tentacle tip

Smallest octopus
Octopus Wolfi
Can be as light as 1g (the weight of 1 raisin)
Measures 1.5cm in length

Venom
The tiny Blue-ringed Octopus of Australia is the only octopus that has venom deadly to humans.

Size of a common octopus relative to an average man