IT is often said that dogs are our best friends. Certainly dogs are loyal, protective and affectionate towards people. But have you ever wondered just who is the boss in the human/dog relationship?

Dogs certainly have ways of getting what they want from their ‘masters’. ‘Puppy dog eyes’ can be very hard to resist. If you have a pet dog, you will know what we are talking about. It is the sad, raised eyebrows look, that dogs use on people, and let’s face it, we often fall for it and provide an extra treat.

Scientists have discovered dogs - the domesticated descendants of wolves - have extra fast twitch muscle fibres above their eyes than wolves.

In other words, scientists believe dogs have evolved to better communicate with humans. This is possibly the result of selective breeding by humans, who prefer dogs that display more facial expressions. Studies have shown that when humans interact with their dogs a hormone called oxytocin is released in the brain, which makes us feel good and increases our bond with our dogs.

Dogs also have more fast twitch muscles around their mouths to assist with the short, sharp movements required in barking. Fast twitch muscle fibres are good for rapid movements, while slow twitch muscle fibres can work for a long time before they get tired.

Wolves have more slow twitch facial muscles, which are better suited to howling. Interestingly, ancient dog breeds don’t tend to bark much. The Basenji, an ancient African dog breed, is also known as the ‘bark less dog’. Research has shown that dogs have a variety of barks and growls to communicate different things.

For example, your dog might use a playful growl when playing tug-of-war over a toy with you, but a very different one if you try to take their bone away. If you own a dog you would be able to tell the difference between the sound of an excited bark when you arrive home, and their bark when a stranger approaches.

Most dog breeds - the great variety of shapes, sizes and colours - have arisen in the last 200-300 years. That’s not a long time when you consider dogs were probably the first animal to be domesticated by humans more than 15,000 years ago.

Dogs have been selectively bred with certain behaviours and attributes in mind. Many perform important roles for people. If you are a regular reader of The Wonder Weekly you might remember these articles:

- The Maremma guardian dogs protecting eastern barred bandicoots on reserves in western Victoria (July 19, 2021).
- Nui the conservation detector dog, who helps keep Macquarie Island safe from pest animals (June 1, 2020).

Maremmas originated in Italy, where they have been used for centuries to guard sheep from wolves. They are a large dog, with a thick white coat and a loud bark.

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Nui, a fox terrier cross, has a natural instinct to hunt rodents, and like many dogs, an acute sense of smell for finding their scent. A dog’s nose has about 300 million scent receptors, compared to a human’s 5-6 million, and the part of the dog’s brain that is devoted to analysing smells is about 40 times greater than ours. They can therefore detect tiny concentrations of odour of one part per trillion - equal to a single drop of liquid in 20-Olympic size swimming pools.

You might have seen dogs at the airport detecting illegal cargo, or being used by police to track missing people. Scientists have even trained dogs to detect illnesses in people, including COVID-19. There are three passages in a dog’s nose and the one designed for smelling is an intricate labyrinth to increase the surface area and pick up every aspect of an aroma. When dogs breathe out, the air exits through slits in the sides of their noses, which allows dogs to sniff almost continually. No wonder they enjoy putting their noses out the car window.

IT is believed that dogs descended directly from extinct wolves, but dogs, living wolves, jackals, coyotes, foxes and dingoes all belong to the same family of mammals - Canidae. The process of domesticating dogs (from wild animals to living with and benefiting humans) happened over thousands of years. Humans selectively bred dogs to make the most of certain traits. They created dogs that were skilled hunters, would protect humans against predators, and serve as herders and guardians of other domesticated animals. Most dog owners believe their dog is pretty smart, and they are right. Dogs can understand more than 150 words, read human emotions, and pull off some pretty cool tricks when there is a reward on the line.

Some scientific studies have compared the intelligence of dogs to other animals. You probably guessed humans are considered the most intelligent, generally followed by chimpanzees and orangutans.

But it might surprise you that dogs are headed on most lists by dolphins, elephants, cows, pigs and even octopuses. Dogs do score well across a range of different categories though, and are also happy to perform tasks.

Have you ever watched a dog agility competition? The aim is for a handler to direct their dog around a course of various obstacles, such as hoops, tunnels, weaving poles and jumps. If you have a pet dog at home perhaps you might like to set up some obstacles in the backyard and see if you can train your dog to conquer them using their favourite treat.

You could make a tunnel out of cardboard boxes, while sports cones can make a great weaving course. Ask an adult family member for permission and don’t ask your dog to do anything that might injure them. Alternatively you could have fun designing an obstacle course on paper. Children’s University Tasmania members can earn stamps in their passports for this challenge at the discretion of school/ hub coordinators.

Dogs have a super power in their noses

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Dogs have a super power in their noses

Using a pencil draw a large oval for your humpback whale’s body. Add two medium-sized ovals where his mouth and tail are going to be and another two for his flippers as shown here. These will be your guides.

Inside the first medium-sized oval draw the shape of his head. Add two small ovals for his eyes. Next, on top of the large oval, draw a bump for his blowhole and a double bump for his dorsal fin.

Inside the second medium-sized oval and the two smaller ovals draw the shapes of his tail and flippers.

Draw some lines starting midway along his head, and under his flipper. These are called ventral grooves. Add some spots to the flipper, then rub out the guides. Use a pen or thin tests to ink him in and add some colour to finish him off.