

# Wild Kids



## Why Your Dog Rolls in Smelly Stuff

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**H**ave you ever heard of (or smelled) a dog rolling around in something really smelly? That is called scent rolling. Some people think the wolf does this to hide its smell so that a prey animal will not know it is approaching, although scientists do not yet accept this explanation. Why

does the dog do it? The answer is the dog got the scent rolling instinct from its ancestor, the gray wolf.

The dog is a domesticated gray wolf. Domestication is selective breeding of animals toward behavior compatible with humans. The ancestors of the dog are wild wolves that were selected to live with people.

Scientists think the domestication process started at least 12,000 years ago, about the same time that humans changed from hunting and gathering food to farming. When wolves began living with people, they had to change some of their behavior to fit in with the human family. Humans didn't want wolves that were too aggressive or hurt humans. So the wolves had to act submissive—let humans be in charge.

Wolves that lived with humans ate scraps of human food instead of hunting for deer or other large prey. So, unlike wild wolves, they did not need strong jaws to eat raw meat and bone. After many generations, the jaws of the domesticated dog became weaker. Today, a wolf's jaw muscle is more than twice as strong as a dog's jaw muscle.

Over generations domesticated wolves started to act and look like young wolves even when they were adults. Today, dogs have a shorter



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The dog, such as the Australian Shepherd above, retained the scent rolling instinct from its ancestor, the gray wolf, shown to the right.



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muzzle, and some have droopy ears, which are characteristic features of wolf pups. Dogs even act like young wolves, by being submissive and frequently wagging their tails. Some scientists say dogs are *paedomorphic*, which means they are stuck in a youthful stage of life.

Some wolf characteristics stayed with the dog—like the scent rolling instinct. Dogs and wolves use the same communication methods. They both growl, bark and howl. They both use body language, like tucking their tail between their legs and putting their ears back. They both use their scent to communicate. They both urinate to mark their territory.

Every animal has a set of instructions, called genes, that tell the body of the animal how to grow. The genes of the gray wolf are almost exactly the same as the genes of the dog. The species gray wolf is divided into many groups called subspecies. Some scientists think that the dog is a special subspecies of the gray wolf that was domesticated. Biologically, that means the dog is a gray wolf! ■

### Activities to try:

- Nobody knows for sure how the first wolves came to live with people. Use the information you learned here to make up your own story about the first dog.
- Compare the size of this paw print to the paw of a dog you know. Which is bigger? Wolves use big paws to hunt. Dogs do not need to hunt, so their paws are not as big.

