



Egyptian Art
More than 3,000 years ago, an artist drew three dogs chasing a hyena.

Dogs— Loyal Companions

What's your image of a dog?

- A powerful Great Dane?
- A tiny, lively Chihuahua?
- A protective German shepherd guide dog?
- A friendly, lovable mutt?

Most dogs are descendants of the gray wolf, which was originally found throughout Europe, Asia, and North America. Dogs were the first animals to be domesticated, or tamed. As far back as 9,000 years ago, farmers who raised sheep, cattle, and goats tamed dogs to herd and guard the livestock.

After taming dogs, people began to breed them for traits that people valued. Early herding dogs helped shepherds. Speedy hunting dogs learned to chase deer and other game. Strong, sturdy working dogs pulled sleds and even rescued people. Small, quick terriers hunted animals, such as rats. "Toy" dogs were companions to people of wealth and leisure. More recently, sporting dogs were trained to flush out and retrieve birds. Still others were bred to be guard dogs. But perhaps the real reasons people bred dogs were for loyalty and companionship.

Girl with dalmatian



From Wolf to Purebred

About 10,000 years ago, some wolves may have been attracted to human settlements. They may have found it easier to feed on food scraps than to hunt for themselves. Gradually the wolves came to depend on people for food. The wolves, in turn, kept the campsites clean and safe. They ate the garbage and barked to warn of approaching strangers. These wolves were the ancestors of the dogs you know today.

Over time, dogs became more and more a part of human society. People began to breed dogs for the traits needed for tasks such as herding sheep and hunting. Large, aggressive dogs, for example, were bred to be herding dogs, while fast dogs with a keen sense of smell were bred to be hunting dogs. Today, there are hundreds of breeds. They range from the tiny Chihuahua to the massive Saint Bernard, one of which can weigh as much as 50 Chihuahuas.

Today, people breed dogs mostly for their appearance and personality. Physical features such as long ears or a narrow snout are valued in particular breeds of dogs. To create “pure” breeds of dogs, breeders use a method known as inbreeding. Inbreeding involves mating dogs that are genetically very similar. Inbreeding is the surest way to produce dogs with a uniform physical appearance.

One undesirable result of inbreeding is an increase in genetic disorders. Experts estimate that 25 percent of all purebred dogs have a genetic disorder. Dalmatians, for example, often inherit deafness. German shepherds may develop severe hip problems. Mixed-breed dogs, in contrast, are less likely to inherit genetic disorders.

Fur Color in Retrievers

In Labrador retrievers, the allele for dark-colored fur is dominant over the allele for yellow fur.



Science Activity

Most traits that dogs are bred for are controlled by more than one gene. A few traits, however, show simpler inheritance patterns. For example, in Labrador retrievers, a single gene with one dominant and one recessive allele determines whether the dog's fur will be dark or yellow. The allele for dark fur (D) is dominant over the allele for yellow fur (d).

- Construct a Punnett square for a cross between two Labrador retrievers that are both heterozygous for dark fur (Dd).
- Suppose there were eight puppies in the litter. Predict how many would have dark fur and how many would have yellow fur.
- Construct a second Punnett square for a cross between a Labrador retriever with yellow fur (dd) and one with dark fur (Dd). In a litter with six puppies, predict how many would have dark fur and how many would have yellow fur.

Dogs and People

Over thousands of years, people have developed many different breeds of dogs. Each of the dogs shown on the map was bred for a purpose—hunting, herding, guarding, pulling sleds—as well as companionship. Every breed has its own story.



Golden Retriever
Great Britain, A.D. 1870s
Lord Tweedmouth developed this breed to help hunters retrieve waterfowl and other small animals.



Basset Hound
France, A.D. 1500s
Second only to the bloodhound at following a scent, the basset hound has short legs and a compact body that help it run through underbrush.

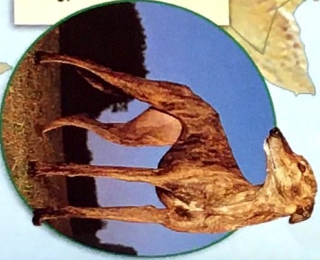
Border Collie
Great Britain, after A.D. 1100
This breed was developed in the counties near the border between England and Scotland for herding sheep. The border collie's ancestors were crossbreeds of local sheepdogs and dogs brought to Scotland by the Vikings.



Dachshund
Germany, A.D. 1600s
These dogs were bred to catch badgers or rats. Their short legs and long body can fit into a badger's burrow. In fact, in German the word *Dachshund* means "badger dog."



Greyhound
Egypt, 3000 B.C.
These speedy, slender hounds were bred for chasing prey. Today, greyhounds are famous as racers.



Pekingese
China, A.D. 700s
These lapdogs were bred as pets in ancient China. One Chinese name for a Pekingese means "lion dog," which refers to the dog's long, golden mane.

Chow Chow
China, 150 B.C.
Chow chows, the working dogs of ancient China, worked as hunters, herders, and guard dogs.



Siberian Husky
Siberia, 1000 B.C.
The Chukchi people of northeastern Siberia used these strong working dogs to pull sleds long distances across the snow.

Lhasa Apso
Tibet, A.D. 1100
This breed has a long, thick coat that protects it from the cold air of the high Tibetan plateau. In spite of its small size, the Lhasa Apso guarded homes and temples.



Akita
Japan, A.D. 1600s
This breed was developed in the cold mountains of northern Japan as a guard dog and hunting dog. The Akita is able to hunt in deep snow and is also a powerful swimmer.



Social Studies Activity

Draw a timeline that shows the approximate date of origin of different breeds of domestic dogs from 3000 B.C. to the present. Use the information on the map to fill out your timeline. Include information about where each breed was developed.