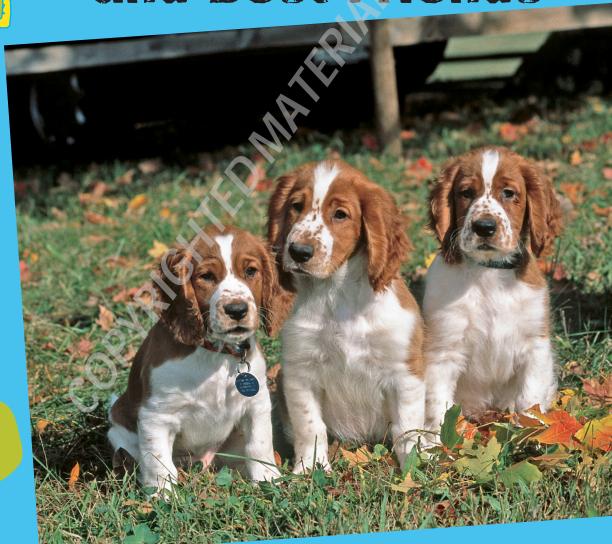# 1

Dogs Are Our First and Best Friends

People and animals first became friends more than 12,000 years ago. Those animals were wolves, and they started hanging around where the people were because people had food. After a while, people got used to the wolves being nearby and picking up their garbage. The wolves who were not afraid of people came the closest and therefore got the best free meals. Since they were the best fed, they were able to have the most babies. They also taught their cubs not to be afraid of people.

Perhaps someone found a wolf cub and raised him the way we raise puppies today. When that wolf grew up, he decided to stay close to the people and may even have helped them hunt. Eventually a friendship grew, and companionship with people became just as important as food to these animals.

Dogs today are very different from those wolves, but they are still our first animal friends. They are also valuable working partners and do many different jobs.

Herding Farm Animals

Jake is a handsome black and white Border Collie. This breed is best known for its skills in herding sheep, but Jake is different. He herds geese. (Herding means helping to gather and move animals where the farmer wishes them to go.) Geese can be difficult because they are big, and they will peck at and bite dogs. Geese don't have teeth, but they pinch quite hard when they bite. Dogs who herd geese need to be quick to move out of the way when the geese are upset.

Jake's job is to take the geese out of the pen where they spend the night and gently herd them to the grass pasture where they spend their days. Then, in the evening, Jake needs to move them back from the pasture to their pen.

When the geese want to go to their pen, his job is easy. But the geese don't always want to go, and then Jake's job is difficult. He has to run in a circle around all the geese, gathering them together, and then walk behind them. The geese move away from Jake, so when he walks behind them, they move in the direction he wants them to go. Without Jake, the farmer would have to do this all by himself, and the job would be much harder.

Dogs have been herding livestock (farm animals such as cattle, sheep, goats, geese, and ducks) for as long as farmers have kept animals. The dogs may work as Jake does and move the animals from one place to another. They may also gather the animals all together. This is important when the farmer needs to milk the cows or care for the livestock.

When Jake isn't busy herding geese, he plays with the family kids or sleeps in the house. He's a working dog, but he's also a member of the family.

The breeds of dogs used most often today to herd farm animals include Border Collies like Jake, English Shepherds, Australian Shepherds, Australian Cattle Dogs, Shetland Sheepdogs, and Bearded Collies.

The word breed is used to describe dogs (and other animals) who share similar body types and other characteristics. Dogs of a certain breed also have certain working instincts. Australian Cattle Dogs, for example, were bred to help cattle farmers in Australia herd their cattle. Shetland Sheepdogs are small and were bred to herd small sheep on the Shetland Islands in Great Britain.

Protecting Livestock

Predators (animals—wolves, coyotes, and mountain lions, for example—who eat other animals) often try to kill farm animals because they are easier to catch than wild animals such as deer or rabbits. Farmers want to keep predators away from their livestock so they often have dogs known as livestock guardian dogs. These dogs are big—sometimes bigger than the predators—and they protect the livestock from attacks.

Benjamin is a 120-pound Great Pyrenees dog. He is white with cream-color ears, and he has a thick, rough coat. When he was 12 weeks old, the farmer he lives with introduced him to two baby lambs. Ben and the lambs sniffed each other, chased each other back and forth, and then took a nap together. The puppy spent a part of each day with the lambs, getting to know them and beginning to think of them as part of his pack, or family. Dogs are naturally protective of their pack, and Ben was learning that sheep also should be protected.

As he grew up, Ben began spending the night with the flock of sheep. He learned his job by following his mother, Jessie, as she walked around the flock paying attention to the smells and sounds around her, looking for any signs of predators. During the day, Ben and Jessie spend their time with the farmer keeping him company or inside the house with the rest of the family. But each night, Ben is back at work, making sure the sheep are safe from predators.

Barking to Warn Us

Does your dog bark when people knock on your door or ring your doorbell? Most dogs do. One of the first jobs dogs did for people was barking to tell us that other people were approaching.

Dogs who bark when strangers approach are often called watchdogs or alarm dogs. This is because they watch for people and let their families know someone is approaching. For this job, the size of the dog isn't important. Although most people think that large dogs, such as German Shepherds, are the best watchdogs, even small dogs can bark enough to get their family's attention. In fact, many small dogs are more likely to bark than big dogs and so make much better "doorbell dogs"!

Cosmo is a Shih Tzu, a small, fluffy breed of dog. He weighs only 12 pounds, but he has a loud bark. He likes people and is very friendly, but people who come to his family's house may not know that. His barking makes sure they won't enter the house or yard until his human mom, Joanne, gives them permission.

Cosmo is a doorbell dog. He's Joanne's pet. But some dogs work as professional guard dogs protecting property when people aren't around. These dogs are more like employees than pets. The dogs stay in the building or in the business yard, often after it is closed for the day, and bark when anyone approaches. Guard dogs may be trained to bite anyone who breaks in. These dogs are not mean, though. They are valued employees who must be treated with respect, given comfortable quarters and companionship, and rewarded for the hard work that they do.

Finding People Who Are Lost

A dog's nose is much more sensitive than a person's nose. If you sniff a salt shaker, you won't smell anything at all because to us salt has no scent. But dogs can smell salt. In fact, their ability to identify scents is so good that they can even smell salt that has been added to water. This sense of smell makes dogs very good at search-and-rescue work. These dogs search for lost people by using their ability to smell where the people have been. Then the dog's handler (the person who trains the dog and then works with him) calls for help to rescue the lost person.

Michi (pronounced MEE-chee), a big tan and black German Shepherd, is an air-scenting search-and-rescue dog. That means he follows scents that are floating in the air. Scents are created by your body, small pieces of skin (called dander) that fall off, tiny bits of fabric from your clothes, and even the smell of the food you have eaten. All these smells become your own personal scent.

Other breeds, especially Bloodhounds, are trailing or tracking dogs. They follow scents on the ground. When people walk over grass, they drop bits of their personal scent. The grass is also bent and broken and produces its own scents. A tracking dog learns to follow all these smells.

Michi was about 6 months old when he began search-and-rescue training. His handler, Paul, would hold out a piece of clothing that belonged to a person Michi didn't know. When Michi sniffed the clothing, Paul praised him: "Good boy!" Then the owner of the clothing would run a few yards away and hide behind a bush or a tree. Paul told Michi, "Find him!" When Michi followed the person's scent and found him, Paul praised him again: "Yeah! Good boy! Good job!"

As Michi grew up, his practice searches became longer and more difficult. He learned how to follow scents as they moved in the wind or sank to the ground. He learned how to find a scent again when there was a break in the trail.

Paul was learning, too, just as Michi was. He had to know what Michi was doing as he was following the scent. And he needed to know how to help his dog when Michi became confused. Even though Paul couldn't smell the same things that Michi could, he had to learn how weather conditions affect scents and how Michi's nose works. Paul also had to learn how to read a map, a compass, and a GPS (global positioning system, which tells you where you are all the time) so they wouldn't get lost. Paul took a first aid class for people and dogs so that if anyone got hurt on a search, he could help them.

Then, when Michi was 2 years old, he and Paul took a very hard test. They had to search for someone in a forest in Virginia. They passed the test and became a working search-and-rescue team.

On his third official search, Michi worked for three hours trying to find an older man. He had wandered away from his family's home and had become lost in the woods. The man's family said he wasn't feeling well and was confused. During the third hour of searching, Michi's tail began wagging and Paul said, "I think Michi has picked up a scent!"

Sure enough, Michi was sniffing deeply. Soon he made a sharp turn and went up a gully. There, sitting next to a tree, was the lost man. Michi licked his face, and the man put his arms around the German Shepherd, hugging him hard. Paul called for help on his radio, and soon the man was back with his family.

Although German Shepherds and Bloodhounds are often used as search-and-rescue dogs, so are Labrador Retrievers, Golden Retrievers, Bearded Collies, Doberman Pinschers, Australian Shepherds, Bernese Mountain Dogs, and many other athletic breeds with good scenting abilities. There is at least one Pit Bull on record who does search-and-rescue work. Lots of mixed-breed dogs do this work, too.

Water Rescue Dogs

Kody is a big black dog with a thick coat. He also has webbed feet—skin between his toes—like a duck! Kody is a Newfoundland. This breed was developed on the island of Newfoundland in northeastern Canada. These dogs weigh between 130 and 150 pounds and can swim very well, in part due to those webbed feet.

For many years, the people on Newfoundland fished in the rough, cold waters of the Atlantic Ocean. When a boat crashed on the rocks, their dogs would swim out with life rings and ropes and tow the people to shore. Through the years, many people have been saved by these canine heroes.
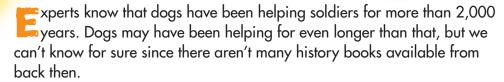

Although Kody hasn't had a chance to save any fishermen, he does get to practice his lifesaving skills. He and his human mom, Joan, live in San Diego, California, near the Pacific Ocean. They practice water rescue skills with other Newfoundland dogs and their guardians. One of the people swims out in the water. Then a handler sends her dog with a life ring and rope out to the swimmer. The dog then pulls the person back to shore.

Although no one is drowning—it's just practice—the dogs are very proud of themselves anyway. Joan says, "Dogs enjoy having a job to do. They like being needed, and Kody loves his job of saving people." To help the dogs get better at their job, the Newfoundland Club of America holds water rescue tests where the dogs can show off their skills.

The Dog Scouts of America, an organization that has training programs for dogs and offers dogs and their human parents a chance to earn badges (much like the Girl Scouts and Boy Scouts), has a water safety program. The dogs begin when they are puppies and learn to swim safely. Eventually, they work up to real-life skills. The dogs learn to swim and bring a life ring out to a swimmer in trouble. They also learn to catch an oar that has been dropped in the water and swim it back to the boater who dropped it.

Brave Military Dogs

Experts know that dogs have been helping soldiers for more than 2,000 years. Dogs may have been helping for even longer than that, but we can't know for sure since there aren't many history books available from back then.

One of the first jobs dogs had in the military was to warn the soldiers if people were approaching. Just as your dog barks when someone comes to the door, these army dogs would bark when strangers came too close to camp.

Many military dogs would also use their good scenting abilities to find people, just as search-and-rescue dogs do today. And then, when the army attacked, the dogs would run with the soldiers, barking, growling, and snarling to frighten the enemy.

Today, dogs in the United States Army, Navy, Marine Corps, Air Force, and Coast Guard serve in many different jobs.

- **Sentry dogs.** These dogs work with soldiers, marines, and sailors at sentry gates, where people come into or out of a base. They also work at places where access to a building or area is allowed only to certain people. They growl or bark when people are seen, heard, or smelled.
- **Patrol dogs.** These dogs work alongside military men and women and walk around the base (or ride in a truck) to detect anyone who shouldn't be in that area. They growl or bark when anyone is heard, seen, or smelled.
- **Scout dogs.** These dogs work quietly alongside their military partners, without barking or growling. They are often taught to detect snipers or other enemies by smell, sound, or sight. They alert their handlers that they've found something by sitting or freezing in place, or by changing their body posture.
- **Messenger dogs.** These dogs work for two handlers and run back and forth between them, often over long distances, to deliver

messages. Although cell phones and radios have replaced most messenger dogs, some are still used by the military.

- ☺ **Mine detection dogs.** Mines are used to harm the opposing forces' troops. These buried explosives (they're like small bombs) are deadly and kill or hurt many people. Dogs are trained to sniff out buried metals. The dog isn't hurt by the mine, but instead stops, stands still, and points to where the mine is with his nose. Although the military is trying to make machines that can find mines, dogs are still the best at this job. Their abilities have saved thousands of lives.
- ☺ **Search dogs.** These military search-and-rescue dogs are taught to find people who may be lost. Some are taught to find certain objects, such as military equipment.
- ☺ **Drug detection dogs.** Sometimes the military is called in to help stop people who are trying to bring illegal drugs into the United States. The U.S. Navy and Coast Guard are often involved in these activities, as well as the U.S. Customs Department and the Border Patrol. Dogs who have been taught to find illegal drugs are often called upon to search cars, trucks, boats, and even airplanes to see if any illegal drugs are hidden there.

Dogs are very smart and talented and can be trained to help our military men and women in many different ways. Although a military working dog may have more than one skill—a patrol dog may also have search-and-rescue training, for example—most have one primary job.

In the future, military dogs may be asked to do new jobs that haven't even been thought of yet. Our military men and women also enjoy working with dogs. The waiting list for this job in each branch of the military is usually very long.

There are plans to honor the many dogs who have worked hard in all branches of the military with a national monument. The monument has already been designed. It shows a soldier kneeling with a German Shepherd at his side. A Labrador Retriever sniffs out a trail nearby, and a Doberman Pinscher stands guard. The final location of the National War Dogs Monument has not yet been decided.

The breeds of dogs used by the military depend on the job the dog will be asked to do. If the dog must be watchful, warn of trespassers, and be alert to strangers, the military may use German Shepherds, Belgian Malinois (MAL-in-wah), or other breeds that are naturally protective. If the dog is going to use his scenting abilities and doesn't need to be protective, the military may use Labrador Retrievers, Golden Retrievers, or Beagles.

Hardworking Police Dogs

Just as dogs in the military work alongside soldiers, police dogs work with police officers. A dog is assigned to one officer and works with him or her during their assigned work hours. Then the dog goes home with the police officer when they're off duty. The dog and officer form a close friendship as well as a working relationship.

Police dogs are most often seen riding in a police car with the officer or patrolling busy areas in big cities. If the officer needs help, the dog can come to the officer's assistance. The dog's job may be to chase after the bad guy, biting and then holding him until the officer can put handcuffs on him.

Police work can be dangerous to the officer and his or her dog. Police officers try very hard to keep their dogs safe, often by putting a bulletproof vest on the dog. But this work, called patrol work, is only one of the jobs police dogs perform. Here are some of their other jobs:

- **Crowd control.** The dog and officer can help control crowds of people simply by being nearby and easily seen. People often behave better when they know a police dog is there.

- **Protecting property.** A police dog and officer may be asked to check out property, including homes and businesses, to make sure everything is

okay. Because a dog's senses of smell and hearing are so much better than a person's, the dog can detect problems much sooner.

- ⊛ **Finding people.** Just as search-and-rescue dogs have been taught to find people, so have many police dogs.

- ⊛ **Finding objects.** Many police dogs are taught to find objects such as guns, bags of money, or other things that criminals might throw away in the hopes they won't be caught by the police. Since the officer may not know what was thrown away, the dog is taught to find an object that is not where it belongs—something that is out of place. A bag of money, for example, doesn't belong in the middle of a grassy field.

- ⊛ **Drug detection.** Many police dogs are taught to find illegal drugs in homes, cars, businesses, schools, and other places.

- ⊛ **Bomb detection.** Police dogs may also be taught to alert their police officer partner to a bomb or other materials that may explode. The dog doesn't get close to the bomb, but instead stands still and uses his nose to point toward the bomb.

Many police dogs are cross-trained. This means they know how to do more than one job. Many patrol dogs, for example, can also find lost people and lost objects.

During their training, all police dogs learn what is needed for the job they will be doing. Drug detection dogs learn the various smells of illegal drugs, for example, while bomb detection dogs learn to find explosive materials. But all dogs are taught to behave themselves in exciting situations. They learn to ignore gunfire, to be calm in crowds

of people, and to ignore exciting sights such as hot air balloons and sounds such as motorcycles zooming by. Police dogs also learn to ride calmly in cars, trucks, and even helicopters.

Police officers go to school, too. They get to know their dogs and learn to work with them. The police officer has to know how the dog will react when he's excited, worried, or scared. The police officer learns first aid, too, for both people and dogs. If the dog or another police officer gets hurt, the officer can bandage a cut or stop the bleeding.

Police dogs are also great for making friends. Most police dogs are very well trained, and many are very friendly. Police officers may go to schools or public events so that people can get to know the police dog, pet him, and see him perform some of his work. Since these dogs are hard at work, however, always ask a police officer before petting his dog.
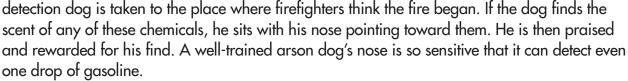
German Shepherds and Belgian Malinois are the most commonly used breeds for police work. Police dogs need to be smart, easily trained, and healthy, and they need to be physically strong to do their work. Many, especially patrol dogs, must be powerful enough to catch and hold a bad guy.

What Starts a Fire?

Fires start in many different ways. Sometimes fires begin when lightning strikes the ground and dry grass begins to burn. A fire can start in a home when someone is cooking and the food burns. A candle that is knocked over can start a fire, too.

Sometimes people start fires on purpose. This is called *arson,* and it's against the law. These fires can hurt or kill people and can cause a great deal of damage. It can be difficult for firefighters to determine how a fire began, but it's easier now that some working dogs have been trained to find what started a fire.

Arson-detection dogs are trained to find the kinds of chemicals used to start fires on purpose, including gasoline, lighter fluid, and other materials that burn easily. After a fire has been put out, an arson-detection dog is taken to the place where firefighters think the fire began. If the dog finds the scent of any of these chemicals, he sits with his nose pointing toward them. He is then praised and rewarded for his find. A well-trained arson dog's nose is so sensitive that it can detect even one drop of gasoline.

Deacon is a black Labrador Retriever who works with Mark, a detective with the Oregon State Police Department. Mark and Deacon trained together for this job. Deacon was taught to recognize the chemicals that can start fires. When he finds them, he sits and is given a food treat. The two of them are called in when arson is thought to be the cause of a fire. If Deacon finds several places where fire-starting materials are located, he sits in front of the spot with the strongest smell.

To keep Deacon's skills sharp, he and Mark train often. But when he's at home with Mark, Deacon's a pet and can relax and just be a dog.

The Beagle Brigade

Joyce was in the airport, coming home from a trip to see her sister. She was waiting for her ride home when a small black, tan, and white Beagle wearing a green vest approached her, sniffed her small suitcase, and then walked on past. Joyce had just been checked out by a member of the U.S. Department of Agriculture's (USDA) Beagle Brigade.

The USDA uses Beagles to check for foods and agricultural items that are not allowed into the country. These items are not allowed for many reasons. For example, they may not be of the quality we are used to, or perhaps the items may be carrying insects or parasites that could harm people, livestock, or farms.

Beagles were chosen for this work for several reasons. First, Beagles like to work for food. That makes their training much easier. This love of food also makes it easier to teach the dogs to find food in luggage. Even though the dog isn't given the food that he finds, he is given a treat for finding it.

Beagles also have very good scenting abilities. They can smell traces of foods so small that machinery cannot find it at all. Beagles are small dogs and are able to move through piles of luggage more easily than a larger dog could. The USDA likes to use this breed because most Beagles are healthy and less prone to some of the health problems found in some other dog breeds.

During a Beagle's training, he works with the person who will become his working partner. This way the dog and the person learn to understand each another. The dog is exposed to many different food and plant scents and is taught to find them. When he does, he is taught to sit as close as he can to the food—which might be right next to a suitcase or a package. He is then praised and rewarded for his find.

Other Detection Dogs

The dogs used by the Beagle Brigade are detection dogs. That means they use their scenting abilities to find, or detect, illegal foods and agricultural products. Search-and-rescue dogs can be considered detection dogs, too, because they use their scenting abilities to find people. But dogs can be trained to find other things, as well.

- **Termites.** Termites are insects that eat wood. When termites get into a house, they can eat so much wood that the house can be in danger of collapsing. A person who knows the signs of termite infestation can often find them. But if the termites are hidden in the wood, they may be too difficult for a person to locate. Trained dogs, however, rarely miss because they aren't looking for the termites, they are sniffing for them. They can find termites even when the insects are inside a board or up in an attic.

- **Bedbugs.** These tiny insects live in beds, carpets, curtains, and other dark places where they can hide during the day. They crawl out at night. If they can find a person, they will bite. Many people are allergic to the bite of a bedbug, and each bite turns into a big, itchy red spot. It's hard to see these insects because they run away in the light. Even a flashlight will cause them to hide. But trained dogs can find them quickly by their scent.

Truffles. Truffles are a kind of mushroom that grows underground. Many people think truffles are very tasty. Because truffles grow under the dirt, they are hard to find. But dogs have been taught to find them by sniffing out their scent. Although pigs have also been taught to do this job, dogs are preferred because dogs won't eat the truffles they find—sometimes pigs will.

Mold. Molds and mildews grow when things are wet for a long time. Houses that have been flooded or have a leaky pipe in the wall often develop mold and mildew. Unfortunately, many molds—especially black mold—can make people very sick. If the mold is inside a wall, the people living in the house may get sick from it without even knowing it's there. Dogs who have been taught to find these molds can do so without endangering themselves, because they alert their handler from a distance to the presence of mold.

Detection dogs can be used to find many things. If a dog can smell something and a dog trainer can teach him to search for that particular scent, then the dog can learn to find it when asked to do so.

Dogs Working for Wildlife

The Working Dogs for Conservation Foundation trains dogs to help people who are working to save threatened or endangered species. This is a new field of work for dogs that is becoming very important. These dogs have been taught to help researchers find and study many different animals, including foxes, black-footed ferrets, bears, turtles, and snakes. Some dogs have even been trained to find certain plants.

Dogs who are able to air scent (follow scents in the air) can learn to follow the scents of specific species. The dogs then work with teams of people who are studying these animals. The dog can help them find the animal's droppings, hair, sleeping places, feeding areas, and, in some cases, the animals themselves. The dog doesn't hunt or catch the animals, but instead leads people to the animals so they can be studied and saved from becoming extinct.

German Shepherds and Labrador Retrievers have been used in this program, but the breed is not as important as the dog's focus on his work. Dogs are chosen who really like to play with toys. If a dog loves his tennis ball, for example, he can be taught to work, and the tennis ball is used as a reward for working.

These talented dogs work in many places around the world. In Africa, dogs have worked with people researching cheetahs and African Hunting Dogs. In Russia, dogs have helped people working to save tigers. In the United States, dogs have located endangered pine snakes in New Jersey and bobcats in California.