

Write one important fact from each paragraph in this space.

## Science Shorts -6

### A Class by Itself

Can you tell the difference between a wolf and a German shepherd? These animals look a lot alike. Each has four legs and a tail. Each has fur. And females from each species nurse their young with milk. But a wolf and a German shepherd have different features. These features help scientists tell one group of animals from another.

The division, or classification, of animals and plants into groups is called taxonomy. Scientists classify animals by looking at things they have in common.

The first scientist to classify animals lived thousands of years ago. His name was Aristotle. Aristotle lived in Greece from 384 to 322 B.C.E. Aristotle saw that animals could be classified by common traits. He identified four ways to group animals. These were by way of living, actions, habits and body parts.

Aristotle began dividing animals into groups. Some of these groups were birds, whales, fish and insects. Then Aristotle broke each large group into smaller groups. He wrote that animals with two feet were different from animals with four feet. Some animals had hair or feathers. Some did not. Animals with shells were different from animals without shells. These classifications let Aristotle identify different groups of animals.

Another important scientist was Carolus Linnaeus. Linnaeus was born in Sweden in 1707. At that time many new animals were being discovered. Biologists, scientists who study living things, had a hard time placing these new animals into Aristotle's system. Some animals didn't fit well into any of Aristotle's groups. So Linnaeus made a new system. Linnaeus's basic system of classification is still used today.

Scientists look at many things when they are classifying animals. The easiest way to classify an animal is to look at its body. It's easy to see that a cheetah and a leopard look a lot alike. So these animals are grouped together. Other times, scientists have to look very closely at the animals' bodies to see what things are alike. That's why some animals that don't look alike can be part of the same group.

Scientists also look at where animals live and what they eat. A bird that eats insects is different from a bird that eats nuts or seeds. Polar bears and sun bears are both bears. But polar bears live where it is very cold. Sun bears live where it is hot. Although both animals are bears, they are classified in different groups.

Classifying animals is like fitting pieces into a puzzle. Each animal fits into a special place. It's up to biologists to find out just where that place is.

# Vocabulary

Use words in the box to complete the crossword puzzle.

Word Box					
Aristotle	Linnaeus	traits	system	mammals	classification
species	biologist	squirrel	rodents	taxonomy	identify

## Across

4. characteristics
5. dividing animals and plants into groups
7. a specific type of animal or plant
9. to tell what something is
10. a way of organizing things
11. animals with long, sharp front teeth
12. the process of dividing into groups

## Down

1. the first scientist to classify animals
2. a scientist who studies animals
3. animals that nurse their young
6. created the system of plant and animal classification we use today
8. a rodent with a bushy tail that climbs trees

