

Name: _____



BATS

Bats are a popular Halloween symbol. The faces of many bats seem scary and grotesque (strange and unnaturally ugly). Their wings remind people of witches' cloaks or devil wings. And they're out and about at night, a time that's dark and mysterious.

Despite their bad reputation, bats are not evil, and they don't have supernatural powers. There are over 1,000 types of bats in the world, and almost all of them are harmless. In fact, some bats are actually helpful to humans.

Flying mammals:

A long time ago, people used to think bats were birds without feathers. But now we know that there is no such thing as a featherless bird. Bats are mammals, just like we are. They're warm-blooded, have fur, and nurse their babies with milk.

But bats are very special mammals. They are the only mammals that can truly fly. Flying squirrels are mammals too, but they don't really fly. They jump from high in a tree glide through the air like a kite. Bats actually use their wings to fly like a bird.

Bats have a thumb and four fingers, just like people. Bat wings are made of two thin layers of skin stretched over the bat's arm and fingers.

When bats fly, they don't just flap their wings up and down. If you watch them closely, it almost looks like they're pulling themselves through the air.

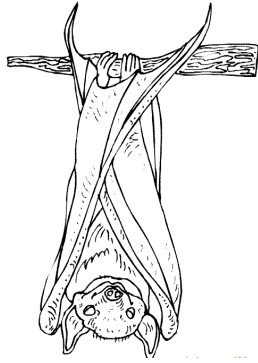
Bats use their wings for more than just flying. They can wrap their wings around an insect (or piece of fruit) to hold it while eating. They also wrap themselves up in their wings while they sleep.

Daytime roosts:

Bats feed at night (they are "nocturnal") and spend the day sleeping in caves or in tree tops. The place where a bat sleeps is called its "roost".

Bats hang upside down from their roosts when they sleep. Being high up keeps the bats safe from predators while they sleep. It also puts them in a good place for takeoff.

Name: _____



Unlike birds, bats can't launch themselves into the air from the ground. Instead, they must climb to a high spot, and then fall into flight. By sleeping upside down near the top of a tree or cave, they're all set when it's time to take off again.

Although some bats roost in groups of only one or two, most bats are very sociable animals. They usually sleep together in huge groups.

Some caves may be home to thousands of bats. The largest bat colony in the world roosts in Bracken Cave, Texas. During the summer, this cave is home to as many as 20 MILLION Mexican free-tailed bats.

Caves and trees aren't the only places that bats "hang out". Some bats have adapted to city life. About a million Mexican free-tail bats live under a bridge in downtown Austin, Texas. That's nearly as many bats as there are people living in the city.

Nighttime hunts:

Bats do most of their hunting at night. Some bats eat fruit, fish, birds or other small animals. Most bats feed on insects which they catch and eat while flying in the air. Only the vampire bat feeds on blood.



Vampire bats rarely bite people, and they rarely kill their victim. They prey mainly on cows, horses and other large mammals. Each bat only drinks about an ounce of blood each night. It makes a shallow wound in the animal's skin with its razor-sharp teeth; then licks up the blood. (It doesn't suck out the blood.) The victim seldom notices what's going on.

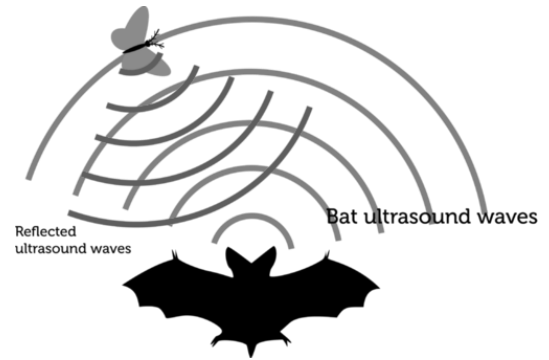
Echolocation:

Bats can see perfectly well in the daytime. They do have trouble seeing in the dark, just like we do, but they have the best hearing of all land mammals. Their ears are often huge compared to the rest of the body.

To find their prey at night, they make rapid high-pitched squeaks called "ultrasounds". (These sounds are too high for most people to hear.) If the ultrasounds hit something, they bounce back—rather like an echo.

Name: _____

The bat hears the echo and can tell where the object is. It can tell how *close* the object is by how quickly the sound bounces back. And it can tell how *large or small* the object is by how loud or soft the echo is. This is called "echolocation". Not every type of bat is able to echolocate, but most can.



Pest control:

Insect eating bats feed on insect pests that destroy crops and annoy people. They are by far the best bug-killers on the planet. The little brown bat (one of the most common North American bats) can catch and eat as many as 1,200 mosquitoes in one hour. The bats that live under the bridge in Austin, Texas will eat up to 30,000 pounds of insects in a single night. The bat colony in Bracken Cave eats around 200 tons of insects each night.

Halloween:

So what do bats have to do with Halloween? No one knows for sure. But some people think that bats have been a part of Halloween ever since ancient times, when the Celts would light bonfires during Samhain.

The light and warmth of these fires would attract many small flying insects. These insects make a perfect meal for hungry bats. People may have seen the bats flying in and out of the fire light (to feed on the insects) and thought that they were the spirits of the dead.

After the discovery of the Vampire Bat in the 17th century, bats became even more frightening. They were seen as the evil companions of witches and devils.

Today, many people think that bats are cute and fascinating creatures. How about you—do you think bats are cute, or are they creepy?

1. The article says that bats are special mammals, not birds. What makes the bat a mammal?

What makes it special?

Name: _____

1. Bats are *nocturnal*. What does this mean?
2. Bats sleep hanging upside down from the tops of trees or caves. This helps protect them from predators. How?

What other advantage does it have?

3. Bats have very good hearing and they often have huge ears. Why is good hearing especially important to a bat?
4. The word echolocation is a compound word. It is made by joining two other words together. What are those two words?

What does echolocation mean?

5. In what way are bats helpful to people?