BATS ARE COOLER THAN YOU THINK

Enter a cave just as night approaches, and you might see a dark cloud pouring like smoke from the cave. It's a cloud of sorts, but it's not a rain cloud—it's a "bat cloud" Bats like to spend the daytime in the cool darkness of a cave hanging upside down from the ceiling but night is different— it is time to hunt. So, thousands of bats take flight from the cave They dive and dart about, snatching insects from the air.

Bats are one of the oldest groups of mammals to have lived on Earth According to fossil records, they were sweeping through the air almost 60 million years ago. Bats flew through the Earth's skies before humans walked on the planet. Although bats have been around for all that time, they haven't changed much Ancient fossils show that bats of long ago were very much like modern-day bats.

There are close to 1,000 kinds of bats. In fact, there are more kinds of bats than there are kinds of any other mammal These bats are placed into two groups— microbats and megabats.

Microbats eat mostly insects, but some also eat small fish, mammals, and amphibians. The smallest microbat is the bumblebee bat, which is about as long as a paper clip Microbats live in a wide range of places and can be found throughout the world.

Female bats give birth to one or two babies every year. They are the only flying animals that nurse their young on milk After a baby bat is born, it crawls up to its mother's chest and clings there with its claws. It feeds

off its mother's milk and even clings to the mother's fur when she goes hunting. But baby bats don't hang around for long. Many are able to fly and catch their own meals only three weeks after birth

Many bats hibernate in the winter when there are no insects to hunt. Before hibernating, bats eat lots of food, which they store as extra fat. They depend on this fat to survive during the winter

Some bats migrate to warmer areas during the winter Red bats fly all the way from Canada to Mexico rather than spend the winter in the cold. There is even a bat in Europe that flies over 1,600 kilometres (1,000mi) to spend the summer in Russia. Don't expect to see bats migrating, since they fly at night.

Megabats eat fruits. They are found in warm, tropical areas where lots of fruit grows all year long. The largest megabat is the Malayan flying fox. It is so large that with its wings spread out, it would stretch the length of the average-sized bathtub. While some megabats are big, megabats are not always larger than microbats.

Bats are not the mean, frightening creatures that many people think they are. They don't get into your hair or attack people and there are no human vampires that turn into bats! The truth is that bats are shy ,gentle creatures. In fact, bats are our friends. Just think of how many insects would be around if it were not for bats!

Bats, like most mammals, are covered with hair or fur, which is soft and quite short. There are a few types of bats that have only a little fuzz on their bodies. No wonder these bats are called naked bats. Bat fur comes in as many colours as human hair does. There are bats with brown, black, grey, red and even yellow fur.

How Echolocation Works

1. The bat sends out a constant stream of beeping noises.
2. The sound waves spread out ahead of the flying bat.
3. Sound waves strike objects such as flying insects.
4. Sound waves bounce off the insects and echo back to the bat.
5. The bat picks up the reflected sound with its super-sensitive ears.
6. Nerves carry a signal from the bat's ears to its brain. The brain interprets the size, distance, speed, and direction of the insect. Zap—it's dinnertime.

Microbats also have another feature to help them hunt—echolocation. This is the use of soundwaves to help bats locate insects inflight.

The combination of skilled flying and echolocation makes microbats excellent hunters at night. The next time you are out at night, take a look skyward. You might be lucky enough to see bats darting through the air, collecting insects in their tail pouches. Observe how quickly they change direction. They are responding to brain signals telling them where food can be found

Bats are the only mammals that can fly. Flying squirrels are mammals, too, but they don't really fly. They glide through the air after jumping from a tree branch.

Batwings are made of two thin layers of skin. The skin is so thin that you can almost see through it. A bat's wings are really modified hands that even have small thumbs. The skin stretches between long, thin bones when the bat is in flight and folds up when the wings are not in use. A bat's wings are used for more than flying. If a bat is too warm, it stretches out its wings so heat can escape to cool the bat. If the bat is too cold, it can wrap itself in its wings.

Like you, bats have two sets of teeth. The baby teeth are lost early in a bat's life. They are replaced by a set of 26 to 28 adult teeth. These teeth are sharp and are used to cut and crush food.

Despite what many people believe, bats aren't blind. Bats use their eyes to see during the day and in the early evening Let's learn how bats find food in the dark.

We now know that bats are skilled fliers. But skilled flying alone doesn't make bats good hunters. Since bats do most of their hunting in the dark of night, they need more talents than flying in order to hunt.

1. What two things do bats like about caves?

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2. How do we know that bats have existed for a very long time?

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3. True or False, bats travel up to 1600 kilometres to get away from the hot weather.

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4. What things in the text tell us that bats have a bad reputation?

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5. You've learnt about the special characteristics of bats. How do these help them survive?

6. Since reading this, has your opinion of bats changed? Explain your answer.