

The Red Fox

by Warner Shedd

It's always easy to think wild animals are bigger than they really are, and that's especially true of foxes. Most people seem to think that a fox weighs about as much as a medium-small dog, but it really only weighs about as much as a house cat. Do you or your neighbors have a cat? If so, how much does it weigh?

An average red fox weighs about ten pounds. If a fox weighs so little, why does it appear to be so much bigger? It's because of its long legs, thick fur, and beautiful tail, which is called a *brush*. That handsome brush, which looks so big and full, actually weighs almost nothing and just seems to float along behind the fox. Underneath all that fur, the fox has a very skinny body, and that's one reason it can run so fast!

The wolf and the red fox both belong to the dog family, but they're very different in many ways, such as the way they hunt. The fox, as you will see, actually has a lot of catlike qualities.

What's for Dinner?

Foxes eat many things, including birds' eggs, berries, nuts, and a lot of meat. They catch prey as large as rabbits and hares or as small as insects. However, foxes are especially good at catching mice, voles,¹ and other small rodents, and each fox hunts alone—much more like a cat than like wolves and other members of the dog family.

¹**voles:** rat-like animals

Session 2

Have you ever seen a cat stalk a mouse and pounce on it? If you have, have you seen the cat play with the mouse before killing and eating it? Well, foxes hunt in almost the same way.

Stalk and pounce: The fox sneaks along until it hears the rustle of a mouse or vole in the grass. Then it turns its head from side to side, using its wonderful ears to figure out the exact location of its prey. The fox will *stalk* its prey and then *pounce* on it. You can find the word *stalk* in the dictionary and discover that it has several meanings. One meaning is to *walk softly*. Try stalking as if you were a hunting fox; then, *pounce*! How is pouncing different than jumping? What part of your body helps you pounce? The fox leaps high in the air and comes almost straight down, its front legs extended to pin the mouse beneath its front feet. Where do you think the fox must have strong muscles?



Go On 

Fox and Mouse Game

A fox is able to hear the rustle of a mouse or a vole in the grass. That's wonderful hearing! The fox turns from side to side to determine the exact location of its prey. How well do your ears work at helping you locate sounds? You can play a game of **Fox and Mouse** to test your hearing. This game can be played with four or more friends—the more players, the more difficult.

Choose one person to be the "fox." The other players are mice; they form a circle around the "fox" who stands in the center with eyes closed. One "mouse" enters the circle, walks around the fox, and returns to the same spot in the circle. All the children call out, "Foxy, foxy, where am I?" The "fox" must point to the child who was the "mouse." If "fox" guesses correctly, then the "mouse" and "fox" trade places, and the game continues with a new "fox."

Now that you've tried listening like a fox, what did you discover about using your ears? Did you turn your head as a fox does? How did you determine the location of the "mouse"?

Frogs

on Ice



by Linda Crotta Brennan

Most Arctic animals have lots of fur and a thick layer of fat to keep them warm. But there's one that defies freezing polar winds with its bare skin. What is it? It's the wood frog, the only North American frog found above the Arctic Circle.

Most frogs hibernate in burrows or tunnel into mud at the bottom of ponds for the winter. There they are safe from frost and ice. You'd think the wood frog, living so far north, would find a well-protected place to spend the winter. But all the wood frog needs for a winter blanket is a bit of wood or a few leaves. Doesn't this animal freeze in winter?

**hibernate = sleep
through winter**

Yes, it does. That's its secret. The wood frog is one of the few animals that can survive being frozen. In fact, after having up to 65 percent of its body frozen solid for the winter, the wood frog will wake up and hop away as soon as the temperature rises above freezing.

Scientists are trying to unlock the secrets of how the wood frog can survive being frozen. They don't have all the answers yet, but they have discovered that when temperatures plunge below freezing, wood frogs flood their cells with sugar, which acts like a natural antifreeze.

Go On



Sugar is the fuel used by most living things. Food is broken down by the digestive system into sugars, which are brought to the cells in the blood. Sugar is then changed into energy. Glucose, the antifreeze used by wood frogs, is the normal blood sugar found in most animals.

At the same time that the wood frog floods its cells with sugar, it produces special chemicals that make ice form in the spaces between cells. Ice crystals grow, pulling water from the frog's heart, lungs, stomach, and other organs. This protects the wood frog because the syrupy liquid left inside the organs can't freeze. When temperatures warm up, the ice between the cells melts. The wood frog wakes up from hibernation and hops away.

Since they can take the cold so well, wood frogs are one of the first amphibians to come out in the spring. After the first warm rain, they gather at temporary spring ponds in the woods and fields. There may still be ice on the ponds when they arrive. But the frogs just sit, waiting on top of the ice until it melts.

Wood frogs live as far north as Canada and as far south as Georgia and Alabama. They are some of the most common frogs in the United States. If you walk by a pond in the first days of spring, you might hear male wood frogs calling. Don't listen for croaks or peeps. The wood frog quacks like a duck. It's just one more way that this frog is unusual.

The next time the winter wind blows, and you huddle in your coat, think of the wood frog up north, happily turning to ice.



Go On

