

Mammals in Motion

Objective

Children learn that mammals move in different ways.

Method

Children play follow-the-leader by imitating the movements of different mammals.

Materials

Photos of different mammals or videos of mammals; slips of paper

Background

Basically all mammals have four “legs.” But various mammals have different methods of getting from one place to another using those extremities. Here are descriptions of the different methods of locomotion.

Walkers: Most mammals walk and run on all four legs - but different mammals use different parts of their feet when they move. Show the kids a picture of a bear and explain that it walks and runs on “flat” feet (the soles of its feet), just as raccoons, skunks and porcupines do. The word we use to refer to this method of movement is called plantigrade. Humans also walk on the soles of their feet, but we walk upright on only the “rear” legs. Mammals such as wolves, dogs and cats walk on their toes (the pads of their feet). The special term for this method of walking is called digitigrade. Deer, bison, horses and other hoofed mammals actually walk on their toenails! This is referred to as unguligrade movement.

Jumpers: Mammals such as kangaroos cover a lot of ground by making long leaps. A kangaroo uses its strong hind legs for jumping, its tail for balance and its weaker forelimbs for holding food.

Diggers: Some mammals spend all or most of their lives underground. Point out the broad forelimbs and strong claws of a mole. Like badgers and most other digging mammals, moles use their front limbs for digging through soil.

Gliders: Some tree-dwelling mammals get around by gliding. Flying squirrels and a few other mammals have flaps of skin connecting their front and hind legs. As they leap into the air, they spread out their legs and the skin flaps form a furry parachute.

Fliers: Bats are the only mammals that can fly. Thin skin connects the long finger bones which make up the bat's wings.

Swimmers: Aquatic mammals such as porpoises and whales are specialized for swimming. Their forelimbs have evolved into powerful flippers, which help them steer as they swim. Their hind legs gradually disappeared as they evolved and their flattened tails give them the push that propels them through the water.



Walking like a wolf is difficult for humans.



Child hops like a rabbit with hind legs moving forward together outside of front legs.

Procedure

Begin by asking why mammals need to move (to find food, escape from predators, find a mate). Then use the background information above and appropriate pictures to discuss the different methods of movement. After you talk about each category, have the kids try each method out.

Have them walk on all fours, with their palms and soles flat on the ground to imitate a bear. Ask the kids to walk on their “knuckles” and balls of their feet like a wolf. Then let them try walking with only their fingertips and toes touching the ground like a deer.

To represent a jumper, have them hold their arms close to their chests and jump forward.

To imitate a digging animal, have the kids walk on their knees and move their arms in a breast stroke motion to simulate pushing dirt away.

Gliding animals are hard to imitate but have the kids hold their arms straight out to their sides, keeping them steady as they walk.

To represent a bat, have kids flap their arms like wings as they walk around.

It is tough to imitate an aquatic mammal, but have the kids bend forward at the waist so that their upper body is almost parallel to the ground, hold their upper arms against their body, and let their forearms hang down toward the floor, swinging the forearms back and forth like fins.

After practicing all the movements, choose a child to be the leader and have the rest of the group line up behind him or her. Tell the kids to leave an arm's length of distance behind the person in front of them. Now ask the leader to choose one of the mammals you've discussed and then move forward imitating that mammal. The rest of the group should follow in a line, making the same movement. After a short time, tell the mammals to stop and have the leader go to the back of the line. Let the new leader (the next person in line) choose another mammal from the discussion and act it out. Continue until everyone has a chance to lead.