Science Quest Gazette

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Why Opossum's Tail is Bare A Cherokee story



A long long time ago Opossum's tail was long and bushy. He loved his tail and spent all day cleaning and brushing it. When anyone came to visit him, he made them listen to his latest song or poem about his tail. And when all the animals got together for a dance he demanded a special seat so everyone could admire his beautiful tail.

Wow! He was so boring!

Rabbit couldn't stand it any more. He decided to play a trick on Opossum. The next dance was booked for tomorrow night. He went to Opossum's house to invite him personally. "I must have a special seat" said Opossum. "Everyone must be able to see my beautiful bushy tail."

"Of course you'll have a special seat" said Rabbit. "Everyone will see and admire your tail. No other animal has one as beautiful as yours." Opossum swished his tail proudly, not realizing Rabbit was making fun of him.

"As a special treat" said Rabbit, "Cricket the barber will comb and trim your tail tomorrow afternoon, so it will look more beautiful than ever." Opossum was very pleased and Rabbit ran off as fast as he could, because he couldn't stop laughing.

The next day Cricket came to Opossum's house. "Thank you for letting me groom your beautiful tail, Opossum. I will be able to tell my grandchildren."

"Yes, combing my tail is a great honor for your family" said vain Opossum.

Cricket took his comb and scissors and a long shiny red ribbon from his bag. "This is special ribbon" said Cricket. "When I've combed and trimmed your sumptuous tail I'll wrap it in this ribbon so it won't pick up any dust on your way to the dance."

"That's an excellent idea" said Opossum "My tail mustn't get dirty." Cricket's gentle combing of his tail soon made Opossum sleepy.

He started to snore loudly and didn't stir until Cricket woke him. Opossum looked at the bright shiny ribbon wrapped around his tail. "All the other animals will envy my beautiful tail when I unwrap it" he said.

When he arrived at the dance, Rabbit led Opossum to his special seat. When the music started he stood up and said to the others "When I remove this ribbon, you can admire my beautiful tail as I dance. There is no other tail as beautiful as mine."

Without looking behind him, Opossum loosened the ribbon, wriggled his tail free and then vainly pranced around the dance floor in time to the music.

Rabbit put a hand over his mouth to smother his laughter. Cricket began to laugh in his little high pitched voice and all the other animals joined in. Finally vain Opossum could hear them over the music.

He looked at the other animals. They were laughing and pointing at his tail! He looked down, horrified. His long beautiful bushy tail was now as bald and scaly as a lizard's tail. Cricket had cut off every hair with his sharp scissors.

Opossum was so surprised and embarrassed he couldn't speak. All he could do was roll over on his back - which is what Opossums do today if you surprise or embarrass them.

Short Tailed Opossum

The Short-Tail Opossum is found mainly in Brazil and adjoining countries of Bolivia, Paraguay, and Chile and there are 17 different species. The *Monodelphis domestica*, described here, was imported into the United States from Brazil in 1978 by the



National Zoo and introduced into the pet market in 1994. Brazil has now closed their borders to exportation, so those available for pets are all bred in captivity.

In their native countries they live close to humans and are frequently found living in houses. Natives call them "cachita" and consider them to be good luck. They readily welcome them as they have a great appetite for unwanted pests such as insects, rodents, and even scorpions.

Note: Opossums are NOT the same thing as possums. "Opossums" range from North America to southern Argentina and contain 15 genera with over 60 species. "Possums" are found in Australia with over 20 species. They are both marsupials, but are actually only distantly related within the same subclass.

Description: A mature Short Tailed Opossum will reach a body length of about 4" - 6" (10 - 15 cm) with a tail that is about $1 \frac{1}{2}" - 3"$ (4 - 7.5 cm) and will weigh between 2 - 5 ozs (60 - 150 g). The males are about 25% larger than the females.

The fur is a thick velvety gray-brown on top with a lighter tone underneath. They have a hairless prehensile tail used to grasp and balance while climbing. It is also great for carrying nesting materials and other things, but it is not weight bearing. They have a muzzle quite like a rat, with very sharp teeth. Their ears are large, very thin skinned, and sensitive to sound and their eyes bulge out giving them good night vision. The front legs are shorter than the hind legs. They have a life span of about 4 to 8 years.

Babies are born premature, pink, and hairless. They are helpless, latching on to a nipple on their mothers stomach where they will stay until they are further developed.

Environment: The Short Tailed Opossum is an escape artist, and must be kept in a secure enclosure. A 10 gallon or larger aquarium with a secure lid or a narrow-mess wire cage work well. Provide corn cob, Care Fresh litter, or shavings (though not cedar) for bedding and a nest box with some nesting materials such as cotton or shredded paper.

For exercise and entertainment they will need things to climb on such as branches, ropes, or parrot ladders, and you can also give them a small hamster wheel. For some fun you can include such things as clay flowerpots, pvc tubes, and other places for them to hide. They need a draft free warm environment. Keep the temperature between $68\,^\circ$ - $88\,^\circ$ F. and at least a 50% humidity, a little on the warmer side is best for mothers with babies.

They are neat clean little critters and will usually pick a corner of their enclosure for a bathroom. They can even be trained to use a litter-box, which makes cage cleaning much easier. Short Tailed Opossums are basically odor-free and their cage only needs to be cleaned about once a week.

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Alka-Seltzer Rockets

Purpose

To design a paper rocket propelled by Alka-Seltzer® and water to demonstrate Newton's third law of motion.

Background

The paper rocket in this activity is propelled according to the principle stated in Isaac Newton's third law of motion: "For every action there is an opposite and equal reaction." Gas pressure builds inside the film canister due to the mixing of Alka-Seltzer® and water. This action continues until enough pressure builds to blow apart the canister from its lid. The reaction is the launch of the rocket.

Materials

card stock printed pattern; empty film canister with lid that snaps inside; markers, crayons, or colored pencils; tape; glue; scissors; Alka-Seltzer® tablets; water; metric tape measure or meter sticks; straw; (Optional launch pad: wood block, coat hanger or other stiff wire)

Preparation

Review and prepare materials. It is most important to use film canisters with lids that snap inside. Do not use lids that close around the outside of the canister.

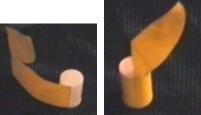
Construction

1. Cut the fins out. Cut the nose cone and body out as one piece.



2. Tape the body onto the film canister, roll the paper around the side. and tape the end down. The lid end of the film canister goes down.





3. Roll the nose cone around in the shape of a cone and tape it together. Straighten the nose cone point to the center of the rocket and tape it to the fin halves together to form a complete circle. sides.

4. Fold the fins so that the colored side is out. Tape or glue the









5. Slide the fins over the body and tape in place.



6. Cut a 1 inch piece of straw and tape it to the body.



Launch Time

This is an outdoor activity. If gusty winds are a problem, then place a quarter in the canister to keep the rocket from falling over. Launching near a wall where a tape has been hung or where meter sticks have been stacked may make it easier to judge how high the rocket goes. You may want to wear safety glasses during this experiment as a general safety precaution. Everyone should stand away from loaded rockets when they are on the launch pad. It may take 15 to 20 seconds to build up enough pressure to launch, so a loaded rocket should not be approached prematurely. These rockets can shoot 5 meters or more into the air. No sharp objects should be placed on top of the nose cone or elsewhere on the rocket.

Make a launch pad with a block of wood and a straight piece of wire. Drill a hole for the wire and insert the wire straight up to guide the rocket at lift off.

