



MOUSE AROUND
by
Pat Schories

There is an old saying that "what goes around comes around". Although it seems impossible that the baby mouse in this true picture book will ever get back to her nest, she does! She is awakened by the sound of water dripping and her curiosity leads her to the edge of the beam. She reaches out to catch the falling water and ends up falling herself; so begins her trip around the town. Each time disaster is pending, something or someone saves her; she "seems to know" the next step on the path home.

Boomerangs seem to know the way home. They were found more than 10,000 years ago in Australia. The wing of a boomerang has an airfoil and it generates lift. Spinning it produces stability in flight. The spin and forward motion imparted by the thrower create a gyroscopic motion to occur and the boomerang turns and turns and returns. It can travel 60 miles per hour and it spins at 10 revolutions per second. Make the special boomerang that the astronauts use on the space shuttle's mid-deck. With practice, it should come back to you.

MATERIALS: 1/2 manila folder, scissors, boomerang pattern.

ACTIVITY: Follow directions on attached sheet.

SOURCE: *WONDERSCIENCE*, December 1992. Used with permission.

STANDARDS:

BSL: 1.1, 1.3, 1.7, 3.1, 6.2, 8.1, 12.1, 12.2, 12.5

NCTM: 4d, 11d

SCS: A1, B1, E2, G1, H2, H5

Schories, Pat. Mouse Around. Farrar Straus Giroux, c1991. ISBN#0-37435080-9.

Out-of-This-world Boomerang!

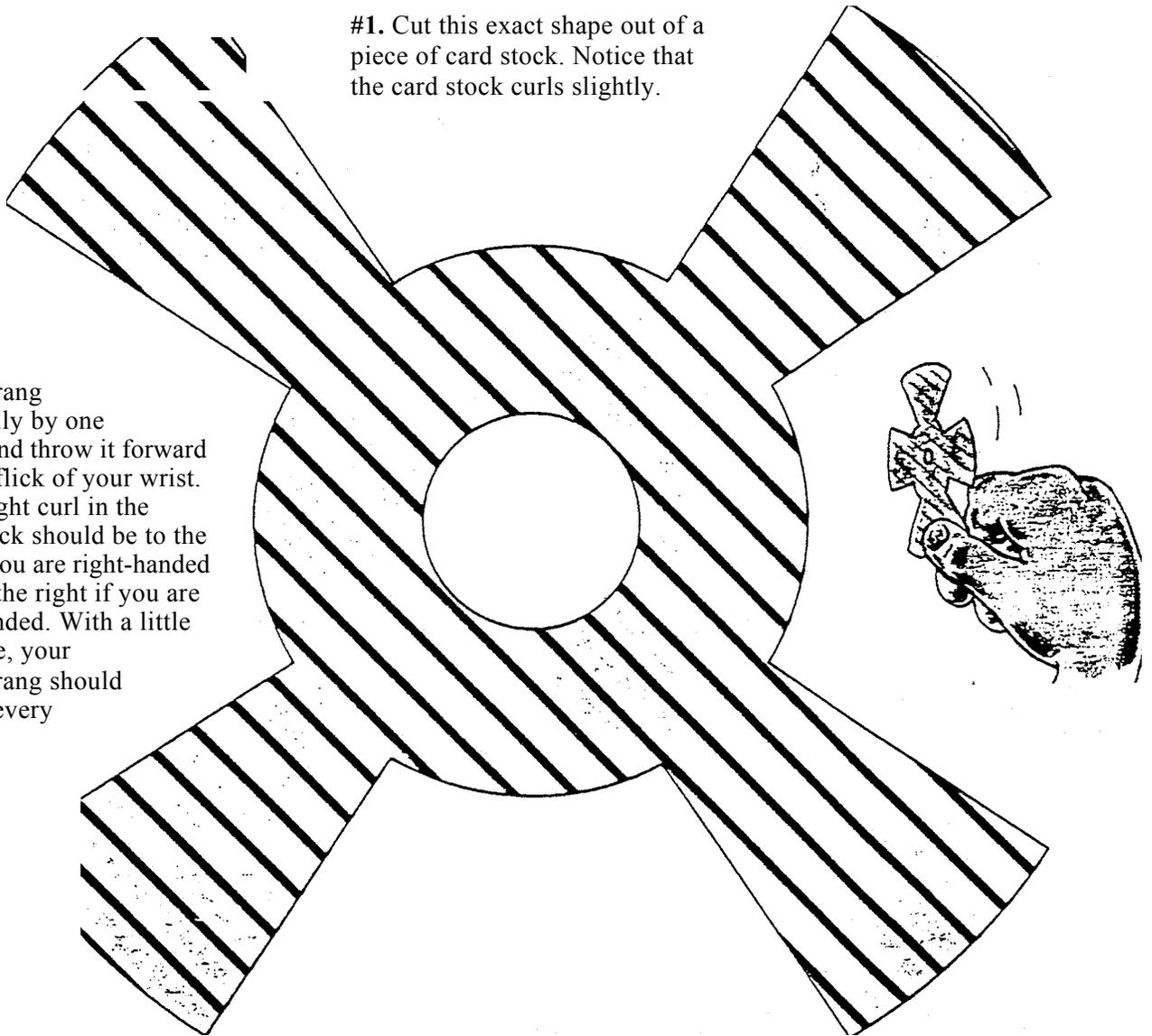
When you send a boomerang spinning through the air, it is supposed to come back to you. Most boomerangs need a space about as big as a football field to turnaround. The astronauts have only the shuttle's middeck which is about 4 meters wide. For the astronauts, a special small 4-blade boomerang has been designed. Follow these instructions to make a boomerang like the one the astronauts use.

You will need
card stock (from a
manila file folder)
blunt-tip scissors
pencil

#1. Cut this exact shape out of a piece of card stock. Notice that the card stock curls slightly.

#2. Hold your

boomerang vertically by one blade and throw it forward with a flick of your wrist. The slight curl in the cardstock should be to the left if you are right-handed and to the right if you are left-handed. With a little practice, your boomerang should return every time!



The Astronaut Challenge:

Does gravity make this boomerang turn around? Is the boomerang falling as it returns? Watch to see how the boomerang's spin changes during flight. Is this a change in direction, angle, or rate of spin? Is this change caused by the air or by gravity? Do you think that the astronauts will be successful in throwing this boomerang? *Used with permission.*