Arvind Gupta
Toys from Trash
www.arvindguptatoys.com/toys.html

- Step-by-Step Photo Guide
- Detailed Worksheet

TOYS FROM TRASH

BERNOULLI BAG
MATERIAL

PLASTIC TUBE
(Approx. 2.5 Metres long 12 cm Wide)
Find or construct a plastic bag
approx. 2 metres long and 15 cm wide
Put the bag to your mouth and blow one complete lungful of air into it
Collect all the air at one end of the bag and measure how much you have collected.
Try again. This time, keep the bag about 15 cm away from your mouth.
Will you collect more or less air?
Surprise, Surprise! The Bernoulli principle ensures that almost 2 meters of air are collected. Interested? Check out the last slide.
Dr Arvind Gupta at a workshop on scientific toys organised by Muktangan Exploratory Science Centre, Paranjape School, Kothrud on Wednesday. Sandeep Daundkar (INDIAN EXPRESS PUNE) 18 DEC 2006
Tie a knot at one end of a 2-meter-long flexible plastic tube.

Take one deep breath and blow it into the tube. Hold the tube next to your mouth. This time there will be much more air in the tube. The high velocity of the blown air creates a low pressure zone -- sucking a lot of air from the outside.

Next keep the tube end 15 centimeters away from your mouth. This will be a measure of your lung capacity -- approximately 3 liters.

You need:

- Plastic Tube - 10-cm wide, 2-m long (used for making bags)