# Leaky Water Bottle

#309

## AGE GROUP


## HOW DO I SET UP & PLAY?

***Curiosity Spark - What is gravity?***

- Punch a small hole in the side of a cup near the bottom. Show children how to hold a thumb over the hole and fill the cup with water.
- Ask them to predict what will happen if you remove your thumb.
- Remove thumb and **let the water pour out from the hole** and into your tub or bucket on the floor.
- Seal the hole again with your thumb and refill the cup.
- Ask the children if they think the water will pour out of the hole again if you **drop the cup.**
- **Tell everyone to watch carefully as you drop the cup into the bucket.** If you have a video camera, use it to record the demonstration and play it back in slow motion.
- This experiment is more effective if you drop the cup from a great height – stand on a bench or table and hold the cup high up before you drop it.

## EXTENDING LEARNING SPARKS

- As a group discuss what the children thought was different in the two demonstrations. *(Ed Reflection - In the second experiment, the cup and the water are in free-fall together).*
- Now investigate together to answer the question....why didn't (as much) water flow out of the hole during the free-fall turn? (Ed Reflection - In free-fall, the water accelerates downwards at the same rate as the cup. The two were falling together, so no water fell out). The small environment of the cup and water experienced **momentary microgravity.)**

## WHAT MATERIALS DO I NEED?

- Styrofoam cups, paper cups, or disposable water bottles (if you have a large group of children you might want a few cups)
- Pencil or another pointed object
- Water
- Bucket or tub to catch water
- Video camera (optional)

Building My Language & Literacy Skills

Exploring Simple Science Concepts