



A LESSON OR TWO IN MICROGRAVITY TEACHER NOTES AND ACTIVITIES

Micro Gravity is a term to describe a very low gravity environment. The word "micro" comes from the Greek word meaning small. Weightlessness is a similar term used to describe (nearly) zero-gravity. Astronauts in earth orbit are still being pulled by gravity and so they still have weight, but the astronauts (and their space shuttles and space stations) are "falling" around the Earth. They no longer feel the effects of gravity and their weight. They feel weightless! Their insides are no longer supported by their legs and their pelvic region, and their organs respond as though gravity was not present. They are in a state of apparent weightlessness.

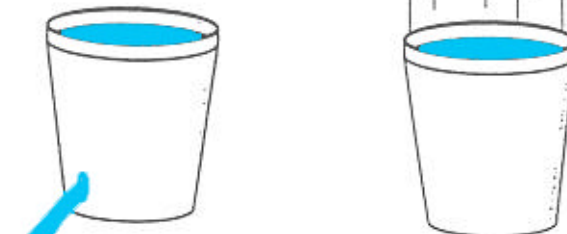
Now try Experiment One: the MICROGRAVITY DEMONSTRATOR

THE MICROGRAVITY DEMONSTRATOR

SUBJECT: Free fall

OBJECTIVES: The student will demonstrate free fall.

MATERIALS: Styrofoam cup
Pencil or other pointed object
Water
Bucket or other water catch basin



- PROCEDURE:**
1. Punch a small hole in the side of a styrofoam cup near its bottom.
 2. Hold your thumb over the hole as you fill the cup with water. Ask students what will happen if you remove your thumb.
 3. Remove your thumb and let the water stream out into the catch basin on the floor.
 4. Again reseal the hole with your thumb and refill the cup.
 5. Drop the filled cup into the catch basin. The demonstration is most effective if you hold the cup high before dropping it.