

## Drinking Bird



**Purpose:** To provide an example of evaporative cooling and how it can be used in conjunction with phase changes to energize an amusing toy

**Location:** room 136, shelf P3

Soak the bird's head, fill the provided cup with water, and let him drink! As water evaporates from the bird's head, it cools the vapors of the blue liquid (a type of Freon). As these vapors condense in the head, the pressure lowers there. At the same time, liquid evaporating in the tail increases pressure there, and liquid is forced up thru the tube, causing an unbalance which makes the beak dip into the cup, keeping it wet. Once the bird has tipped over that far, the bottom of the tube comes out of the reservoir liquid and the liquid in the head and tube drains back into the bottom reservoir, causing the bird to go upright, and the cycle begins again. This will go on as long as the beak is wet.