Simply moisten the bird's head with water, place it next to a full glass and watch as the bird periodically dips its head into the glass for a "drink." This classic toy is really a heat engine that demonstrates the cooling process of evaporation. As long as there is water in the cup and the room temperature is above 18 degrees C (65 degrees F), the bird will continue to rock back and forth for long periods of time.

The drinking bird contains methylene chloride. The methylene chloride evaporates and the vapor rises, transferring mass from the lower to the upper bulb, causing the bird to rock forward. As the water evaporates from the bird's head, the methylene chloride condenses to the liquid phase and flows back to the lower bulb, raising the bird's head.