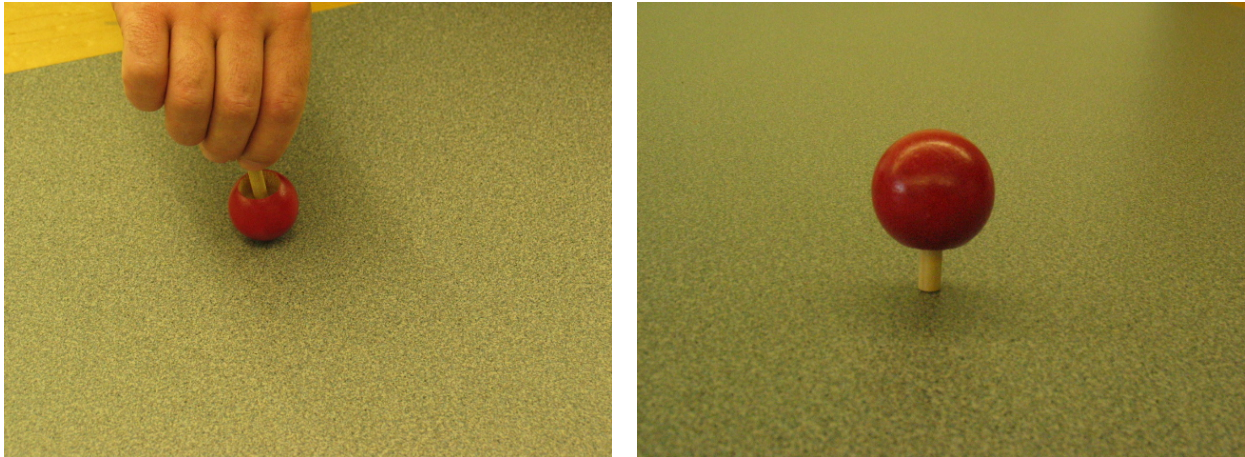


Tippe Top (Inverting Top)



Purpose: To demonstrate a surprising effect in rotational dynamics

Location: room 136, shelf O3

Spin the top with the spherical end down (right) and it will flip and end up spinning *with the spherical end up!* At first, the top appears to violate the law of conservation of energy since seems to raise its center of mass (which is in the spherical section) without outside help, but the phenomenon has been explained as arising due to frictional forces which cause the top to start precessing, resulting in a torque which causes it to invert. It's also surprising that that if the top is initially spun in the direction of an arrow on the side of its hemispherical portion, upon flipping it spins opposite the direction of the arrow!

(See enclosed instructions and references.)