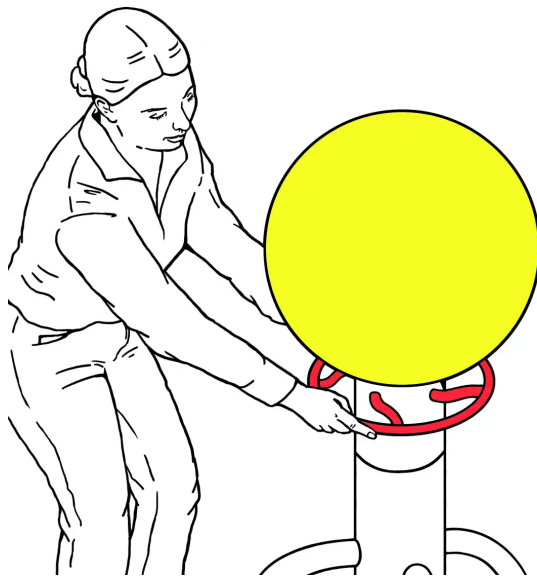


Turbulent orb

What do the patterns in the liquid remind you of?



Turn the ball using the handwheel.

Stop it suddenly, and watch the liquid.

What do the patterns remind you of?

You see a constantly-changing pattern in the liquid.

You can see similar patterns on satellite pictures. The Earth's atmosphere constantly circulates. The insolation is not the same everywhere, which causes the earth's surface and correspondingly also the atmosphere to heat up to different degrees. To compensate for this, winds arise. However, these winds do not flow straight from the warm tropics to the cold polar regions, but are deflected by the Earth's rotation. The combination of a different insolation and the Earth's rotation thus leads to large-scale circulations, e.g. between the tropics and subtropics, and mesoscale turbulence, such as low-pressure systems in the mid-latitudes.