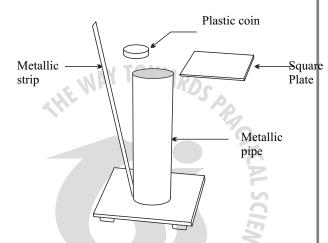
# **INERTIA OF REST**

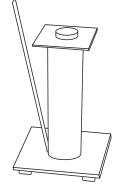
When force is applied to a body, the body gets displaced.

### Assembly:

A metallic pipe of length 6 inches is mounted on a clear plastic base. A steel strip is fixed in between pipe and base which can be pulled and released. A square sheet of foam and a plastic coin are part of the kit.



To do and notice Observe

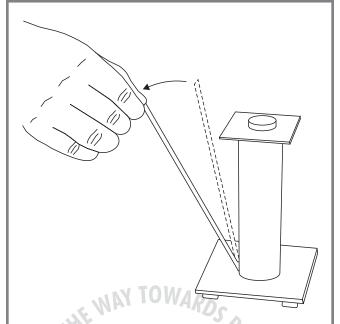


Step-1 : Place plastic coin resting on the square plate as shown in figure

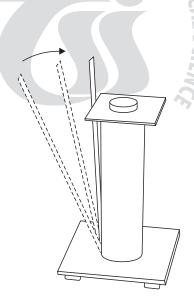
TARANG SCIENTIFIC INSTRUMENTS



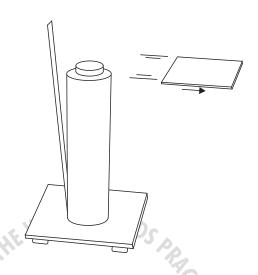
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Step-2: Pull the metallic strip away



Step-3: Release the metallic strip



After releasing the metallic strip, plate flies away & coin rests there itself

### What is going on?

According to Newton's first law of motion every body continues to be in its state of rest or state of uniform motion along a straight line unless it is compelled by an external force. That is, all the bodies resist to change their state of rest or motion. This tendency of the bodies to resist change in their state is called inertia. So here when you release the steel strip it strikes the foam sheet. The foam sheet moves away due to the force applied. Where as inertia of the plastic coin keeps it in a state of rest.



TARANG S CIENTIFIC INSTRUMENTS



Sir Isac Newton (1643-1727)







TARANG SCIENTIFIC INSTRUMENTS



# INERTIA REST

# TARANG SCIENTIFIC INSTRUMENTS

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