



## EQ077F2

### Function

Intended for experimental study, laboratory of natural sciences, physics, chemistry and biology for carrying out experiments on: Matter and energy. The melting of ice, the change from solid state of water to liquid state. The general properties of matter. The specific properties of matter. Burning a candle produces light and heat. A simple machine called a fixed pulley. Force applied to a spring and the elongation suffered. Differentiation between force and pressure. The Magdeburg hemisphere experiment and atmospheric pressure. What is meant by Magdeburg hemispheres. Reducing the internal pressure to the discs. Balancing the pressure inside the disks with atmospheric pressure. The free surfaces of a fluid within communicating vessels. Thermoscope. The difference between thermoscope and thermometer. The difference between heat and temperature. The physical states of water. The solidification of water, obtaining colored ice. Boiling and condensation of water. The means of heat propagation. Kinematics. Referential, position, movement and trajectory. A simple machine called a moving pulley. Dynamics. Frictional forces and Newtons first law of motion. The coil spring and Hookes law. Association of helical springs in series. Determination of spring constant of helical springs in series. Energy conservation. Work and energy in a system of mass and oscillating helical spring, conservation of mechanical energy. . Static. Experimental determination of the mechanical advantage of the inclined plane. Equilibrium of a piece of furniture on an inclined plane. Hydrostatic, etc.

### Knowledge areas

