Levers and the Turning Effect of a Force

Science – Junior Cert

Quick Notes

Levers and the Turning Effect of a Force

The centre of gravity of body is a point about which the turning effects caused by gravity are balanced. The weight of the body seems to be concentrated at this point. For a body to be more stable the centre of gravity of the body should be as low as possible and the area of the base of the body should be as large as possible. A body is in equilibrium if its centre of gravity is not moving and the body is not turning about any point. An object is stable if it does not topple easy when a force is applied to it. A lever is a rigid body that can rotate about a fulcrum e.g. door-handle, see-saw. The turning effect of a body is called the moment of a force. It is calculated by multiplying the force by the distance. The fixed point in a body is called the fulcrum. The law of the lever states that when a lever is balanced, the sum of the clockwise moments equals the sum of the anticlockwise moments.