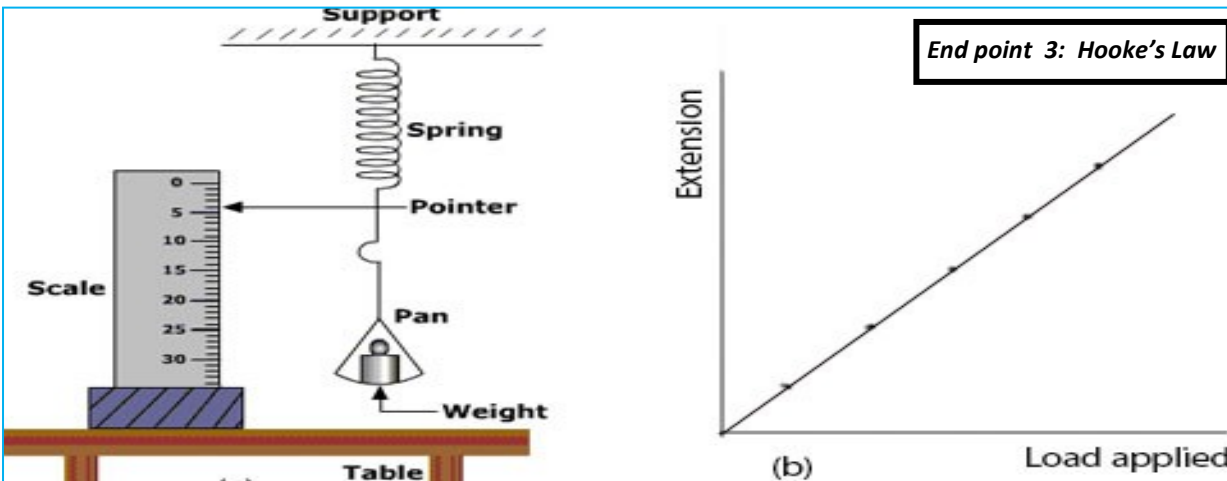


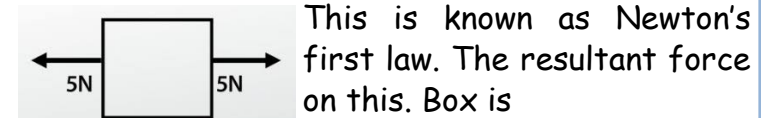
Forces (pressure and contact) Year 8

End point 1 and 2: Draw force diagrams showing size and direction of force



When we talk about the total force acting on an object we call this the **resultant force**. When the forces are acting in the opposite direction are the same size we say the forces are balanced, this means one of two things:

1. The object is not moving (stationary)
2. The object is at a constant speed.



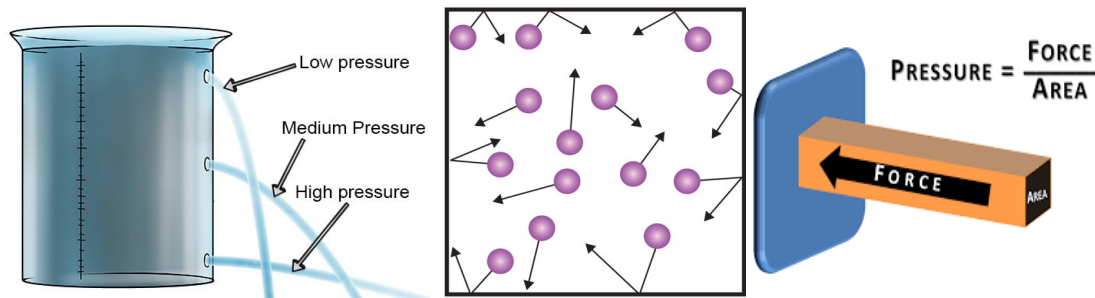
$$5\text{N} - 5\text{N} = 0\text{N}$$

If the forces are unbalanced on an object there are two things that could happen:

If the object is stationary it will move in the direction of the resultant force.

If the object is moving, then the object will speed up or slow down in the direction of the resultant force

End point 4 and 5: Explain pressure in a solid, liquid and a gas., and use pressure formula



End point 6: Explain pressure up thrust in terms of floating and sinking

Objects float in water when their weight is balanced by the upward force from water called "upthrust". The object will sink if its weight is greater than the upthrust force.

A boat floats because its weight is balanced by the upthrust from the water

