

1. Force-

A push or pull on an object resulting from the object's interaction with another object.

2. Free Body Diagram-

diagrams used to show the relative magnitude and direction of all forces acting upon an object.

3. Net force-

the vector sum of all the forces that act upon an object.

4. Inertia-

an object's tendency to resist changes in their state of motion. More mass = more inertia

5. Equilibrium-

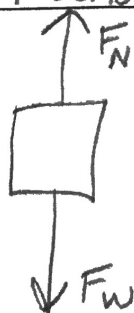
All forces on the object are balanced and the object maintains its current state of motion.

6. Weight -

The downward force on an object due to gravity. To find weight = $F_w = mg$

7. Normal Force -

The support force exerted upon an object that is in contact with another stable object.



8. Newton's 1st law-

An object at rest stays at rest and an object in motion stays in motion at a constant velocity unless an outside net force acts upon it.

Example:

9. Newton's 2nd law- $F=ma$

The acceleration of an object as produced by a net force is directly proportional to the magnitude of the net force, in the same direction as the net force, & inversely proportional to the mass of the object.

Example:

10. Newton's 3rd law-

For every action, there is an equal and opposite reaction.

Example: