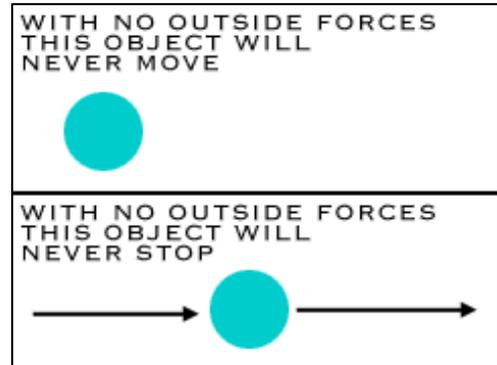


Newton's Laws of Motion

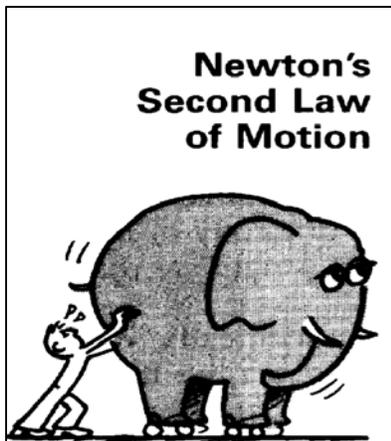
Newton's 1st Law states:

An object at rest will remain at rest unless acted on by a force. An object in motion continues in motion with the same speed and in the same direction unless acted upon by a force. (This law is often called "the law of inertia")

This means that there is a natural tendency of objects to keep on doing what they're doing.



Newton's 2nd Law states:



Acceleration is produced when a force acts on a mass. The greater the mass (of the object being accelerated) the greater the amount of force needed (to accelerate the object).

$$\text{FORCE} = \text{MASS} \times \text{ACCELERATION}$$

Everyone knows that heavier objects require more force to move the same distance as lighter objects.

Newton's 3rd Law states:

For every action there is an equal and opposite re-action.

This means that for every force there is a reaction force that is equal in size, but opposite in direction. That is to say that whenever an object pushes another object it gets pushed back in the opposite direction, equally hard.

