

Force and Motion

- force - push or pull on an object.
- measured in Newtons (N)

- types of force:

- friction - opposes motion
- gravity - pulls objects down to Earth's surface

- air resistance - friction in the air

- magnetism - attracts metals (Fantastic 5)

- buoyant - upward push of liquid or gas on an object.

- balanced forces:

* NO MOTION 50 N → ← 50 N

* = forces!

- unbalanced forces:

* MOTION 75 N → ← 50 N

- net force:

- * combined forces

$$50\text{N} \rightarrow + \leftarrow 75\text{N} = \leftarrow 25\text{N}$$

$$60\text{N} \rightarrow + \leftarrow 70\text{N} = \leftarrow 130\text{N}$$

- * takes direction of greater force.