**FORCES**

Force: A pull or push by interacting objects Unit: Newton

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| **Types of Forces** |
| **Contact Forces** |
| Friction (Ff)*When two surfaces slide against each other* | Opposite direction to motion  | ***v*** |
| Tension (T)*When pulling with a rope or string* | Along the rope or string | http://www.physicsclassroom.com/class/vectors/u3l1d4.gifT |
| Air Resistance(Fair)*Whenever there is motion* | Opposite direction to motion | ***v***Fair |
| Normal Force(FN)*Force applied by any surface* | Perpendicular to the surface | FNFN |
| Applied Force(Fa)*Any push or pull by a person or object* | In the direction specified by each situation | FaFa |
| Elastic Force (Fs)*Force by compressed or stretched spring* | Parallel to the elongation or compression of the spring | http://www.phys.ttu.edu/~rirlc/Image554.gif |
| **Forces at a Distance** |
| Gravity*Force of attraction between two objects* | From the center of one object towards the center of the other object | Fg |
| Electric*Attraction or repulsion by charges* | TBA |  |
| Magnetic*Attraction or repulsion between ferromagnets* | TBA |  |



