Name: _____

Date: _____

Period: _____

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Key

Friction

Definition: A force which acts opposite the direction of an object's motion	Sliding Friction: friction between 2 solid surfaces
	Example: A book sliding across a table A person walking on a sidewalk
The strength of the force of Friction depends on 2 factors: 1. type of surfaces: rough surfaces create greater friction than smooth surfaces 2.How hard the surfaces push together- example rubbing hands	Rolling Friction: friction between a solid surface and a rolling object
	Example: Tires on a road Ball bearings in a axle

Gravity

Newton's Law of Universal Gravitation The force of gravity acts between all objects in the universe.	Definition: the force which pulls objects to the earth	Air Resistance: Fluid friction caused when an object moves through the air. Acts opposite motion
		Air resistance: Surface Area Greater area = more air resistancefalling objects eventually reach terminal velocity when air resistance = gravity
Newton's Formula for Gravity: $Fg = m_1 m_2 / d^2$	Formula from Book: Force of gravity = mass x acceleration due to gravity $A_{gravity} = 9.8 m/s^2$	Air Resistance: Velocity Air resistance increases with velocity
Gravity & mass Directly proportional	Gravity & Distance Inversely proportional to the square of the distance	Weight vs. Mass Weight is an object's mass exposed to the force of gravity