	Vocabulary Word	Definition	Picture
1	**Mass**	The amount of matter or "stuff" in an object. It does not matter where the object is, the mass only depends on the matter in the object. Measured in Kilograms	
2	**Weight**	The force of gravity pulling down on an object. It is directly related to the mass and the location of the object. Measured in Newtons or Pounds.	
3	**Force**	Any push or pull on an object. Force is measured in Newtons.	
4	**Net Force**	The total force on an object. Add all of the forces together to get the net force.	
5	**Friction**	A type of force that happens when two objects rub against each other.	
6	**Air Resistance**	A type of force that happens when an object is falling through the air. Air resistance will always push in the opposite direction of motion.	

	Vocabulary Word	Definition	Picture
7	**Free Body Diagram**	A picture that has all of the forces acting on an object.	
8	**Equilibrium**	When the net force on an object is zero. An object can either be at rest, or moving at a constant speed.	
9	**Static**	An object at rest. The net force will be zero.	
10	**Inertia**	A resistance to change motion. The more inertia and object has, the harder to move. Inertia depends on how much mass an object has.	
11	**Normal Force**	The force from a surface. This force always points perpendicular to the surface.	
12	**Terminal Velocity**	When an object is in free fall and eventually falls at a constant speed. This happens because the force of gravity cancels out with the force of air resistance.	

	Vocabulary Word	Definition	Picture
13	**Vector**	Any quantity that has a magnitude (number) and a direction.	
14	**Newton's First Law**	An object at rest will stay and rest and an object in motion will stay in motion, unless an outside force acts on it.	
15	**Newton's Second Law**	The acceleration of an object depends on how much force you apply, divided by the mass of the object.	
16	**Newton's Third Law**	For every action there is an equal and opposite reaction.	
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