Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Newton’s Laws of Motion**

*Let’s get our move on!*

* These laws explain how forces act upon objects and how it affects their \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* **Force:** A \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_; something that changes the motion of an object
* Examples:
  + Gravity: an invisible downward pull toward the Earth
  + **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_-:** A force that resists the motion between two surfaces in contact
  + **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_:** Any force that keeps an object moving in a circle.

**Newton’s First Law**

* <http://www.youtube.com/watch?v=UVdqxYyFRKY>
* ***A scientific law stating that objects at rest remain at rest, and objects in motion remain in motion with the same velocity, unless acted on by an unbalanced force.***
* **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_:** The resistance of an object to change in the speed or direction of its motion
* Example: A football lying on the ground is going to stay still unless you go to pick it up. You picking up the football is called an “unbalanced force”
* **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_:** Forces that produce a non-zero net force, which changes an object’s motion

**Newton’s Second Law**

* <http://www.youtube.com/watch?v=UVdqxYyFRKY>
* ***A scientific law stating that the acceleration of an object increases with increased force and decreased with increased mass.***
* A larger force will cause an object to \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ faster.
* A larger object needs more force to get it to move.
* Let’s talk about grocery shopping…

**Newton’s Third Law**

* <http://www.youtube.com/watch?v=UVdqxYyFRKY>
* ***A scientific law stating that every time one object exerts a force on another object, the second object exerts a force that is equal in size and opposite in direction back on the first object.***