

## Newton's Laws of Motion: Vocabulary

1. **motion** – a change in an object's position with respect to time and in comparison to other objects; a change in the position, direction, or speed of an object
2. **Newton's laws of motion** – three laws that describe the relationship between an object and the forces that act on it
3. **gravity** – a force that causes objects with mass to attract each other
4. **position** – where an object is located in space
5. **direction** – a straight path that something could move along
6. **speed** – the rate of motion;  $\frac{\text{distance traveled}}{\text{time}}$
7. **force** – a push or pull that causes an object to move, stop, or change direction
8. **pull** – to use force to cause something to move closer
9. **push** – to use force to move away
10. **balanced forces** – separate forces that combine to cancel each other out or make a net force of zero
11. **unbalanced forces** – a force that is not canceled out by another force and causes the motion of an object
12. **friction** – a force that resists the motion of two surfaces sliding across one another
13. **movement** – a change in position or location
14. **potential energy** – the energy stored in an object that is not moving
15. **kinetic energy** – energy of motion