## Newton's Laws of Motion



## Across

3. The force exerted when a material is stretched or compressed.
4. Calculated by dividing distance by time.
5. Stored energy, often from gravity.
6. $\qquad$ Newton
7. When two objects crash.
8. Action- $\qquad$ pairs are described in Newton's Third Law.
9. The force that opposes motion.
10. The friction that causes your hands to heat up when rubbed together.
11. A type of motion in constant acceleration due to Centripetal force.
12. The force that pulls things towards the Earth.

## Down

1. An arrow that has size and direction.
2. The amount of matter in an object.
3. Another stretching force
4. To calculate trajectory, you must first know the initial vertical and $\qquad$ velocities.
5. The energy of motion.
6. Type of friction that acts on an object moving through gas or liquid.
7. Used to reduce friction.
8. $\qquad$ velocity is the maximum velocity an object can fall due to air resistance.
9. $\qquad$ forces cause acceleration.
10. The friction that a car experiences.
11. How far an object is from where it started.
12. The type of motion calculated with trajectory.
13. Law of $\qquad$ of energy states that the energy put into a system is equal to the energy the system produces.
14. Describes the forces when there is no change in motion.
15. The change in velocity.
16. $=$ mass X velocity
17. The actual amount of space covered by an object in motion.
18. The total force felt my an object
19. The resistance to change in motion.
20. Air $\qquad$ is the force that slow the acceleration due to gravity.
21. The gravitational force exerted on an object.
22. Speed with direction.
23. A force that is perpendicular to a surface (Gravity).
24. A push or pull.
