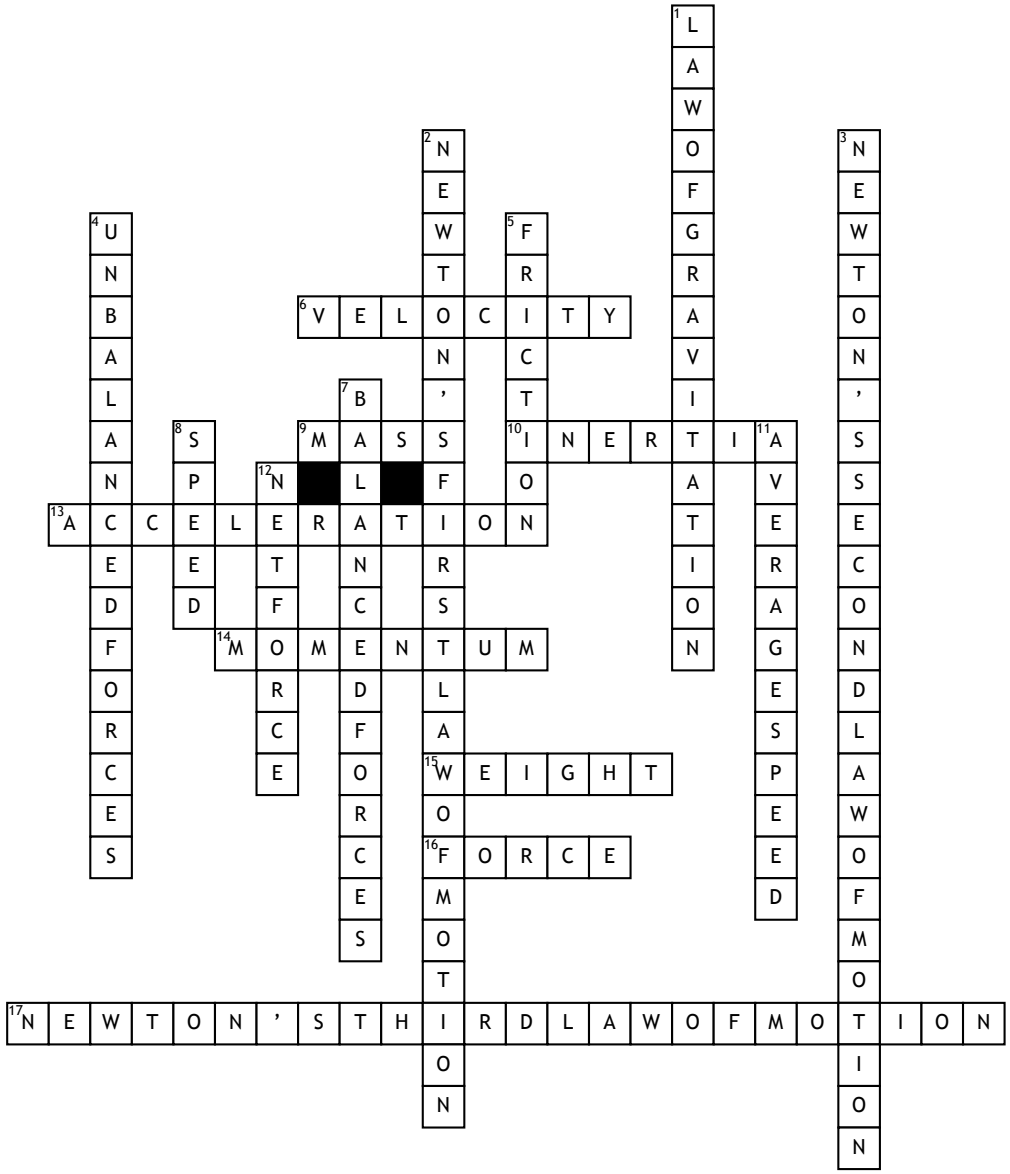
Name: _____ Date: _____ Period: _____

MOTION AND FORCES



Across

6. the speed of something in a given direction.

9. a measure of the number of atoms in it. The basic unit of measurement for mass is the kilogram

10. a tendency to do nothing or to remain unchanged.

13. a vehicle's capacity to gain speed within a short time.

14. the quantity of motion of a moving body, measured as a product of its mass and velocity.

15. a body's relative mass or the quantity of matter contained by it, giving rise to a downward force; the heaviness of a person or thing.

16. strength or energy as an attribute of physical action or movement.

17. For every action, there is an equal and opposite reaction.

Down

1. a particle attracts every other particle in the universe using a force that is directly proportional to the product of their masses and inversely proportional to the square of the distance between their centres.

2. An object at rest stays at rest and an object in motion stays in motion with the same speed and in the same direction unless acted upon by an unbalanced force.

3. The acceleration of an object as produced by a net force is directly proportional to the magnitude of the net force, in the same direction as the net force, and inversely proportional to the mass of the object.

4. an object at rest, the object will not move

5. the resistance that one surface or object encounters when moving over another.

7. are two forces acting in opposite directions on an object, and equal in size

8. the rate at which someone or something is able to move or operate.

11. an object is the total distance traveled by the object divided by the elapsed time to cover that distance.

12. the sum of all forces acting on an object. A net force is capable of accelerating a mass.