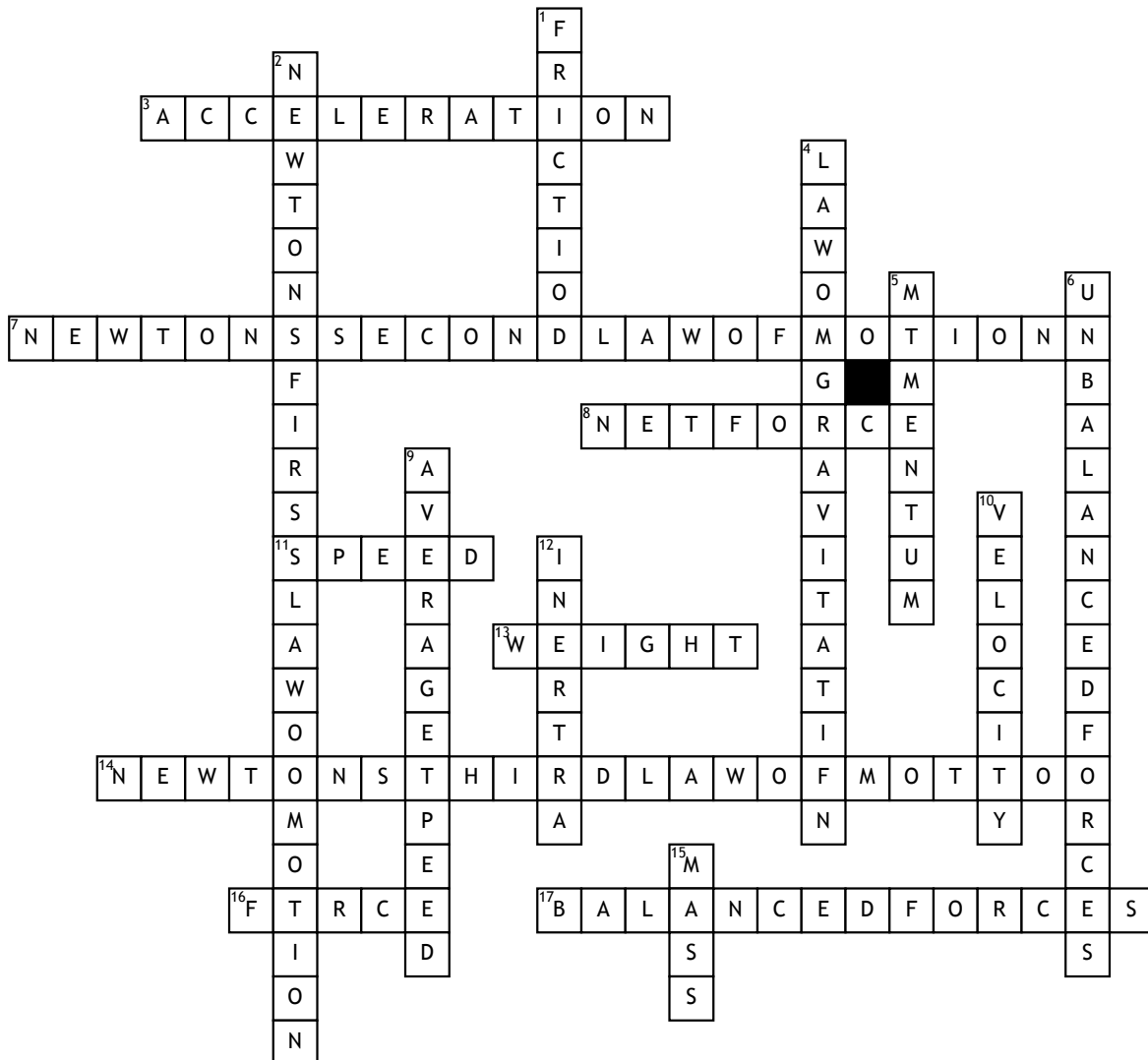


motion and forces vocab



Across

3. The rate at which velocity changes over time; an object accelerates if it's speed, direction, or both change

7. 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.

8. overall force acting on an object

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

13. 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.

14. For every action, there is an equal and opposite reaction. The statement means that in every interaction, there is a pair of forces acting on the two interacting objects. The size of the forces on the first object equals the size of the force on the second object.

16. strength or power exerted upon an object; physical coercion; violence

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

Down

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

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.

4. 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 them.

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

6. forces that cause a change in the motion of an object

9. the total distance traveled divided by the total time elapsed.

10. the speed of something in a given direction.

12. a property of matter by which it continues in its existing state of rest or uniform motion in a straight line, unless that state is changed by an external force.

15. a measure of the amount of matter in an object