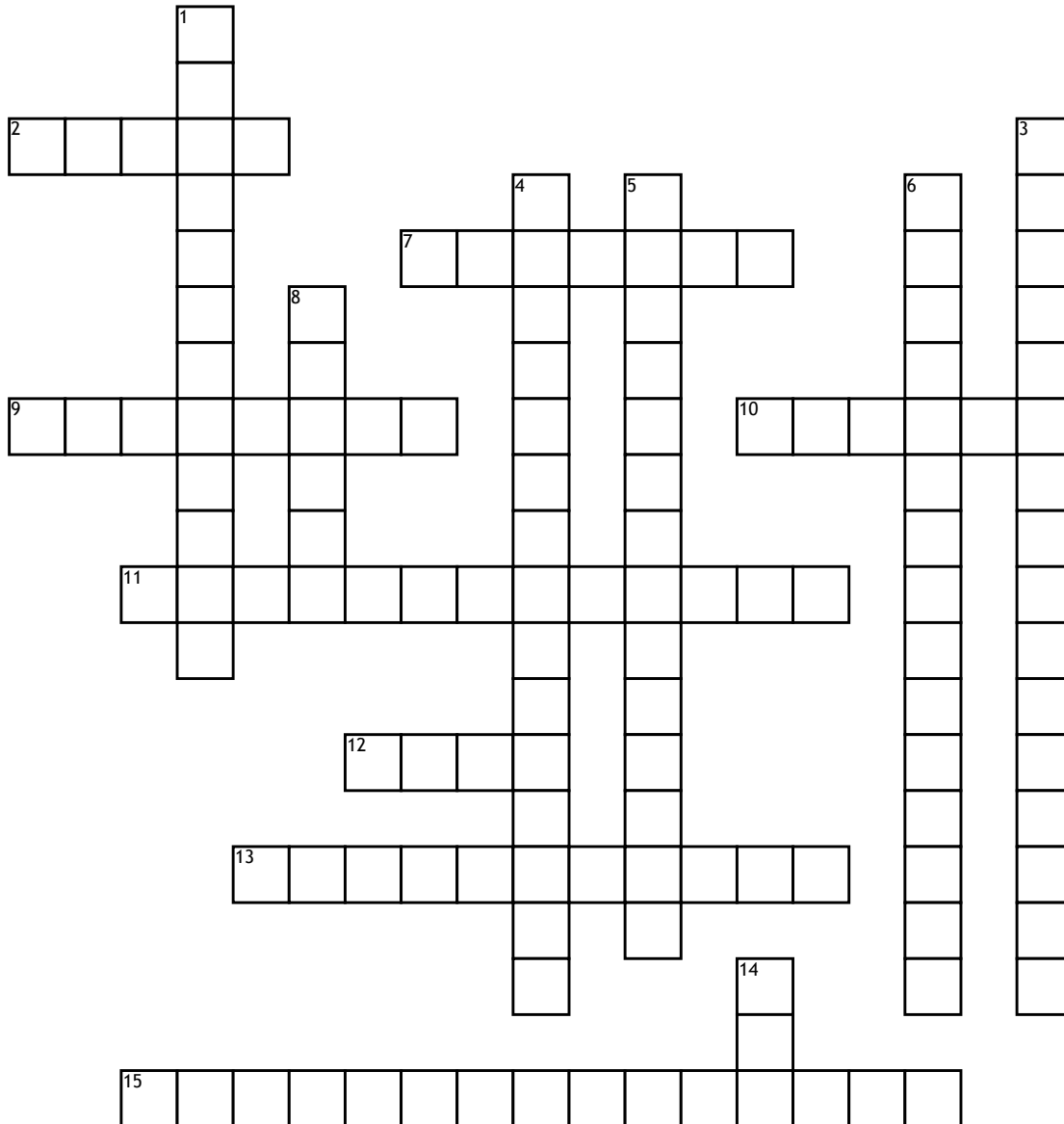


Name: _____

Dynamics



Across

2. external objects or agents that cause change in the motion of other free objects or stress in fixed objects or bodies
7. the tendency of a body to maintain its state of rest or uniform motion unless acted upon by an external force
9. branch of physical science and subdivision of mechanics that is concerned with the motion of material objects in relation to the physical factors that affect them: force, mass, momentum, energy.
10. the standard unit of force in the International System of Units(SI)
11. any force that requires contact to occur

12. the quantity of inertia (resistance to acceleration) possessed by an object or the proportion between force and acceleration referred to in Newton's Second Law of Motion

13. a force which acts perpendicular to a surface and prevents objects from being pushed through it

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

Down

1. the rate of change of velocity over time

3. acceleration of an object is dependent upon two variables - the net force acting upon the object and the mass of the object

4. 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

5. a force that resists the movement of two objects against one another when the objects are initially at rest

6. the frictional force of a moving object

8. the force exerted on a body by gravity

14. a graphical illustration used to visualize the applied forces, movements, and resulting reactions on a body in a given condition