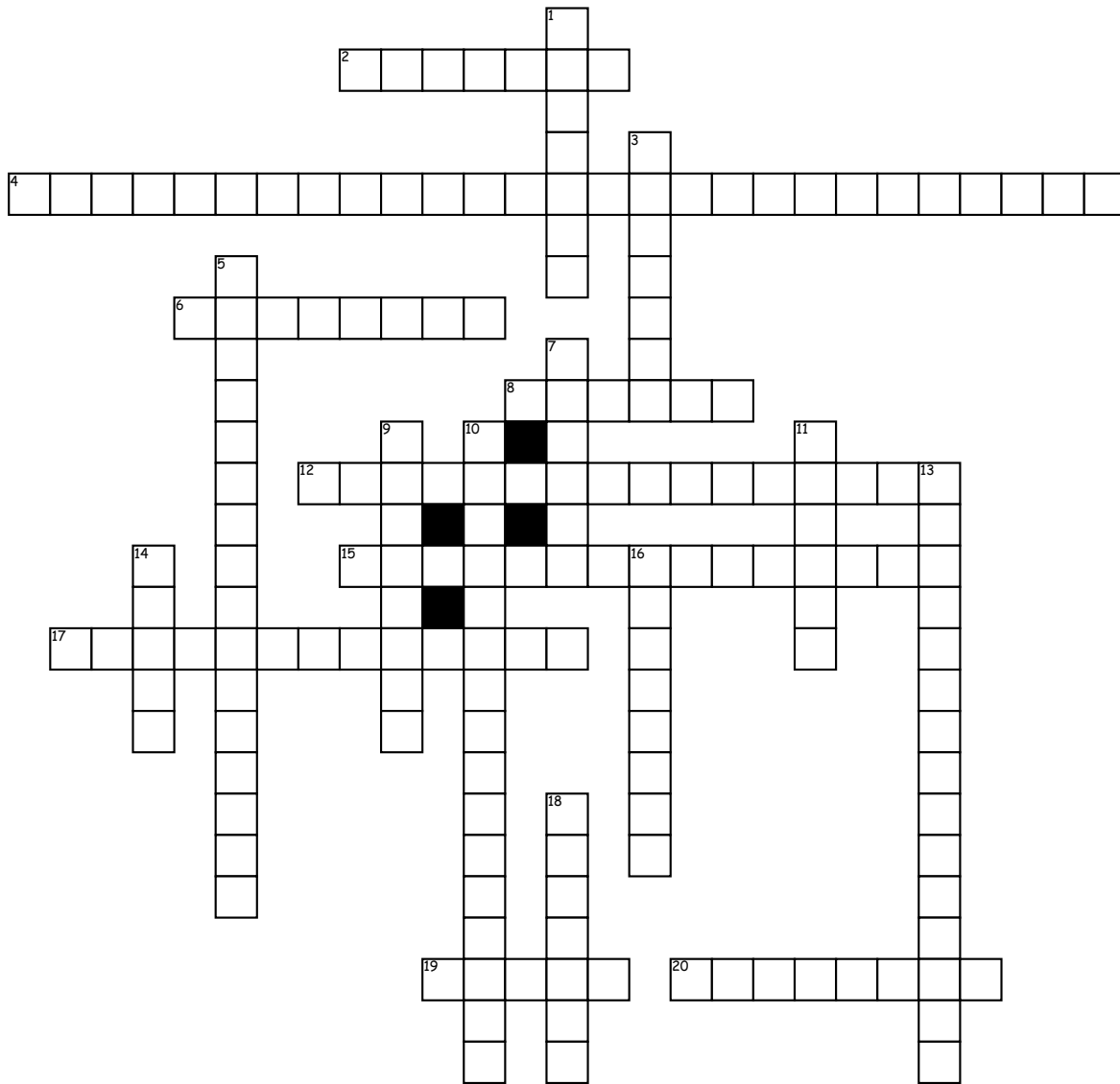


# Newton's Law & Friction Crossword Puzzle



**Across**

2. a force that opposes the direction of motion of an object as it slides over a surface

4. if no net forces acts on a system, then the total momentum of the system doesn't change

6. unbalanced forces that are not opposite and equal

8. a body's relative mass or the quantity of matter contained by it, giving rise to a downward force

12. the motion of a falling object after it is given an initial forward velocity

15. 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

17. the fluid friction action on an object moving through the air

19. opposes the motion of an object through a fluid

20. when gravity is the only force acting on an object

**Down**

1. tendency of an object to resist any change in its motion

3. the force that acts on rolling objects

5. the constant speed that a freely falling object eventually reaches when the resistance of the medium through which it is falling prevents further acceleration

7. the SI unit of force--it's equal to the force that will give a mass of one kilogram an acceleration of one meter per second

9. is the product of an object's mass and its velocity

10. the acceleration of an object is directly proportional to the net force acting on it and inversely proportional to its mass

11. the friction force that acts on objects that aren't moving

13. when one object exerts a force on a second object, the second object exerts an equal but opposite force on the first

14. a push or pull that one body exerts on another

16. a force that opposes the motion of objects that touch as they move past each other

18. force of attraction between any two objects in the universe