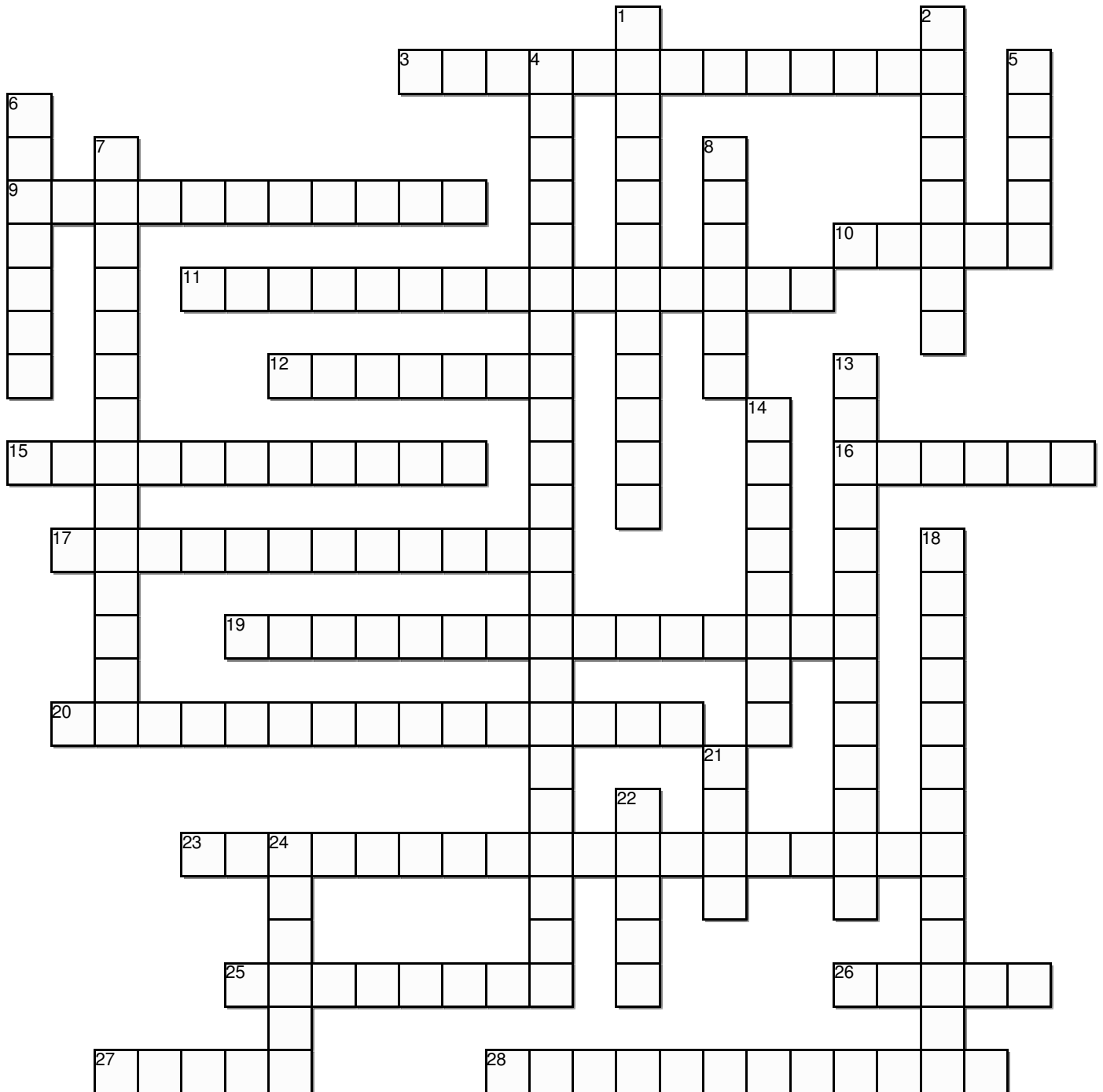# Force and Motion Study Crossword

Use your knowledge of the vocabulary from this unit to complete the crossword puzzle. Hint: When filling in answers that are two or more words, omit the space between the words. Ex: Rolling Friction will be RollingFriction in the puzzle.

Across

3. The force acting in the opposite direction of an action force.
9. the force that acts in one direction.
10. Newton's _____Law states that for every action there is an equal and opposite reaction.
11. occurs when an object rolls across a surface.
12. the tendency of an object to resist a change in motion.
15. the support force exerted upon an object that is in contact with another stable object.
16. the standard unit of measure for force.
17. a change in speed or direction, or both.
19. occurs when two surfaces slide over each other.
20. whenever there is a net force, this is the result.
23. the rate at which an object is moving at a given instant in time.
25. mass in motion; the product of an object's mass and velocity.
26. Newton's _____ Law states that an object at rest will remain at rest.
27. the distance an object travels per unit of time.
28. the total distance traveled divided by the total time.

Down

1. How far out of place an object is; it is the object's overall change in position.
2. speed in a given direction.
4. The law that states that the amount of momentum is the same before and after interaction.
5. swimmers have to work hard to overcome this type of friction.
6. force that pulls objects to the center of the earth.
7. friction between two or more objects that are not moving relative to each other.
8. continuous change in position of an object.
13. speed that does not change.
14. the resistance to motion of one object moving against another.
18. forces acting on an object that do not change the object's motion.
21. a measure of how much matter is in an object.
22. using energy to do work. Ex: Pushing or pulling.
24. Newton's _____Law states that acceleration depends on the mass of an object.