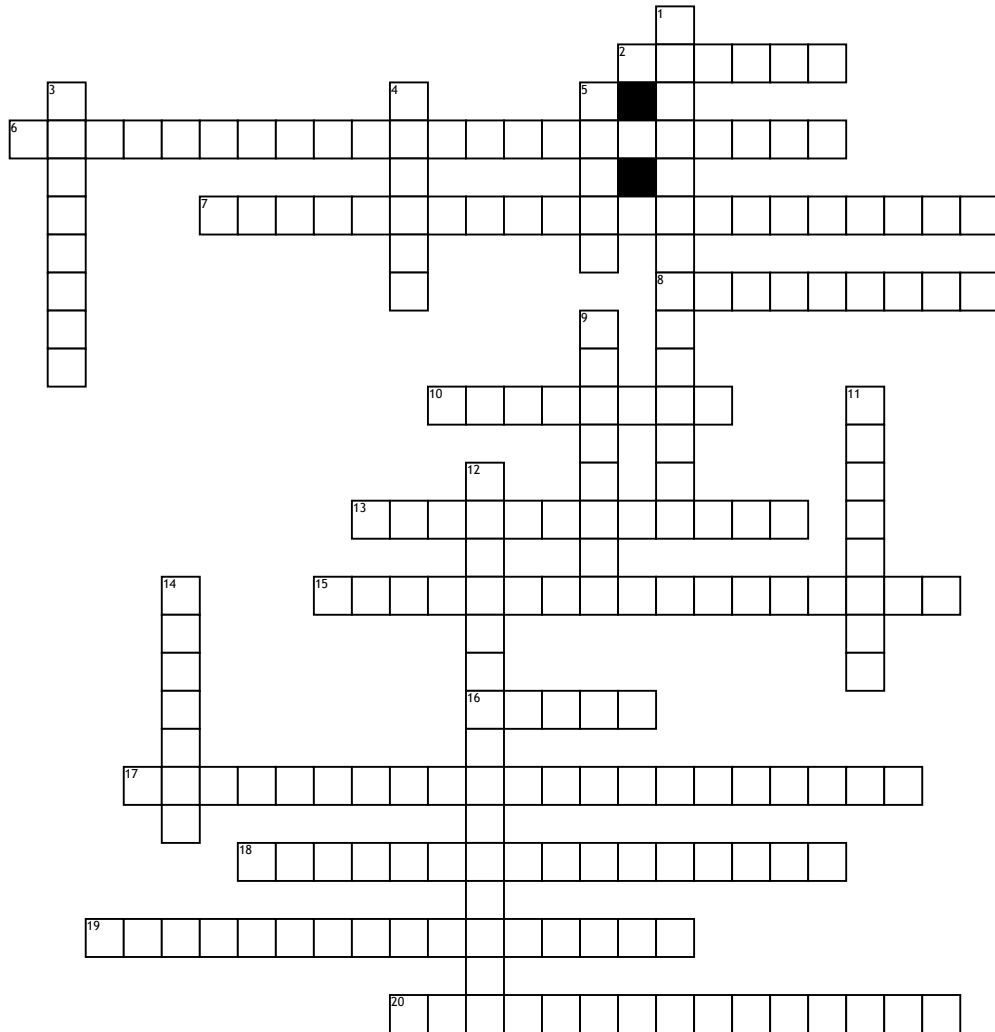


Name: \_\_\_\_\_

Date: \_\_\_\_\_

# Motion and Forces 1&2



## Across

2. the quantity that has both size and direction  
 6. the total momentum of a system of objects does not change, as long as no outside forces are acting on that system  
 7. force equals  
 8. a situation in which two objects in close contact exchange energy and momentum  
 10. The \_\_\_\_\_ of a place or an object is the location of that place or object  
 13. the rate at which velocity changes with time

## 15. momentum equals

16. a measure of how fast something moves, or the distance it moves  
 17. speed equals  
 18. the acceleration of an object increases with increased force and decreases with increased mass  
 19. any force that keeps an object moving in a circle  
 20. states that every time one object exerts a force on another object, the second object exerts a force that is equal in size and opposite in direction back on the first object

## Down

1. a location where you compare other location is called  
 3. a measure of mass in motion  
 4. The change of position over time  
 5. a push or pull on an object  
 9. the overall force acting on an object  
 11. a speed in a specific direction  
 12. states that objects at rest tend to stay at rest unless acted upon by an unbalanced force  
 14. the resistance of an object to a change in the speed or the direction of its motion

## Word Bank

momentum	vector	collision	distance divided by time
reference point	Newtons third law	Newtons second law	Newtons first law
net force	centripetal force	acceleration	velocity
speed	mass times acceleration	position	conservation of momentum
mass times velocity	Motion	inertia	force