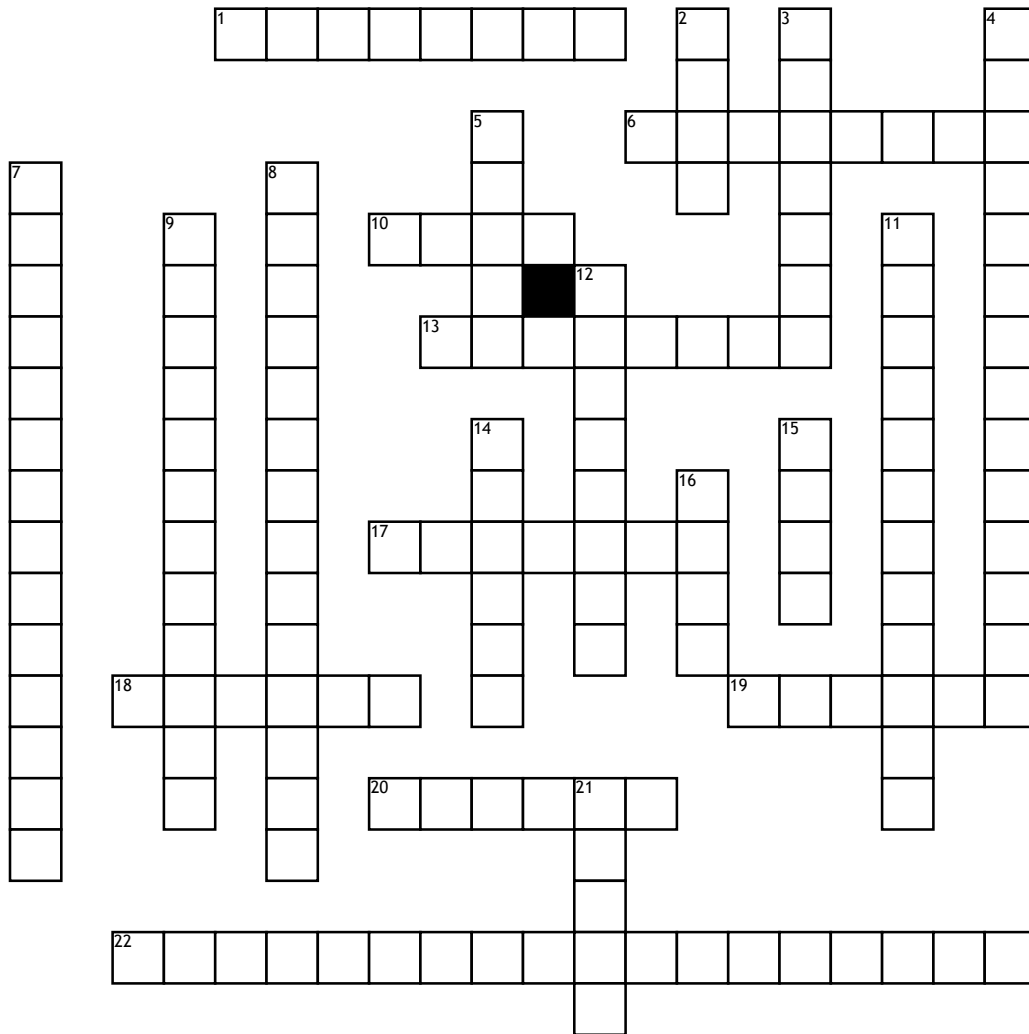


# Force and Motion



## Across

1. the force that opposes motion between two surfaces that are touching
6. forces that are equal and opposite in direction
10. the transfer of energy from one object to another
13. the rate at which displacement changes with respect to time
17. the tendency of a body to maintain its state of rest unless acted upon by an external force
18. unit of force
19. a continuous change in position

20. the force that moves an object forward

22. the speed of an object at any instant of time

## Down

2. the force that slows an object down
3. the invisible force of attraction between all masses in the universe (pull) law
4. an object with an unbalanced force acting on it will accelerate in the direction of that force... $f=m(a)$  ; force = mass times acceleration
5. push or pull exerted on an object

7. an object at rest stays at rest and an object in motion stays in motion unless acted on by an unbalanced force

8. for every action there is an equal and opposite reaction

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

11. the rate at which velocity changes over time

12. the force with which something moves

14. the ability to do work

15. upward force on an object

16. the amount of matter in an object

21. the rate at which distance changes with respect to time

## Word Bank

force	1st law of motion	mass	motion	friction
newton	instantaneous speed	2nd law of motion	speed	3rd law of motion
lift	drag	acceleration	balanced	work
velocity	energy	thrust	inertia	gravity
average speed	momentum			