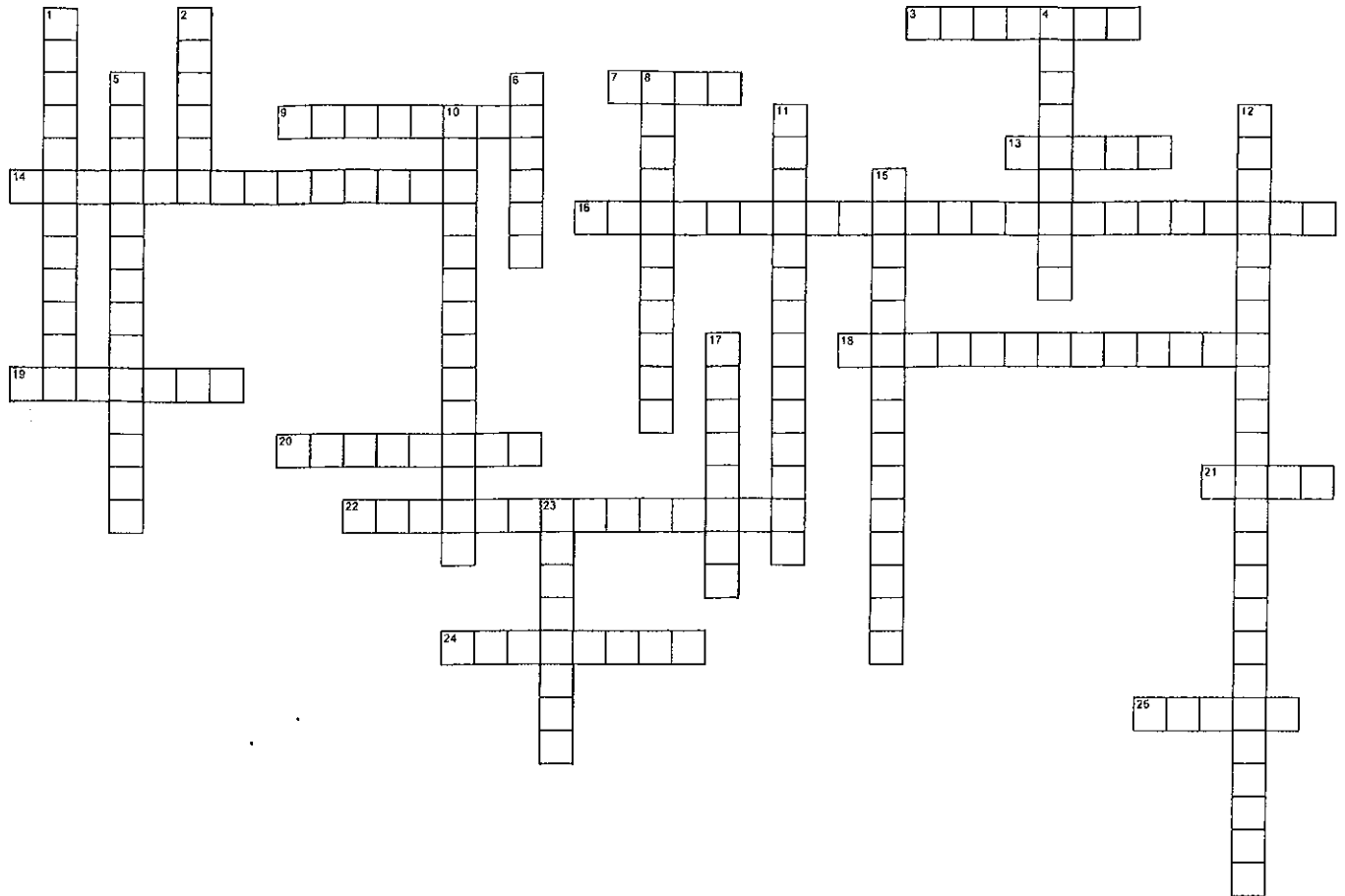


# Force and Motion



## ACROSS

- 3 the force that objects exert on each other because of their masses  
 7 a measure of how much matter an object is made of  
 9 how far an object travels in a given amount of time  
 13 a push or pull; something that changes the motion of an object  
 14 acceleration of an object increases with increased force and decreases with increased mass  
 16 over a definite time period  
 18 the net force on an object is zero, no movement  
 19 the resistance of an object to a change in speed or direction of  
 20 a measure of mass in motion. It is the product of its mass  
 21 how long it takes an object to get to a certain point  
 22 depends on the position and motion of the observer  
 24 a force that resists the motion between two surfaces in contact  
 25 a measure of how fast something moves through a particular distance

## DOWN

- 1 the rate at which velocity changes over time  
 2 a change of position over time  
 4 its motion  
 5 every action has an equal and opposite reaction  
 6 the force of gravity on an object  
 8 and velocity  
 10 an object at rest stays at rest, an object in motion stays in motion unless acted upon by an unbalanced force  
 11 a location to which another location is compared  
 12 for every action there is an equal and opposite reaction; acts on two objects  
 15 can change the motion of an object; creates movement  
 17 an object's location  
 23 a speed in a given direction