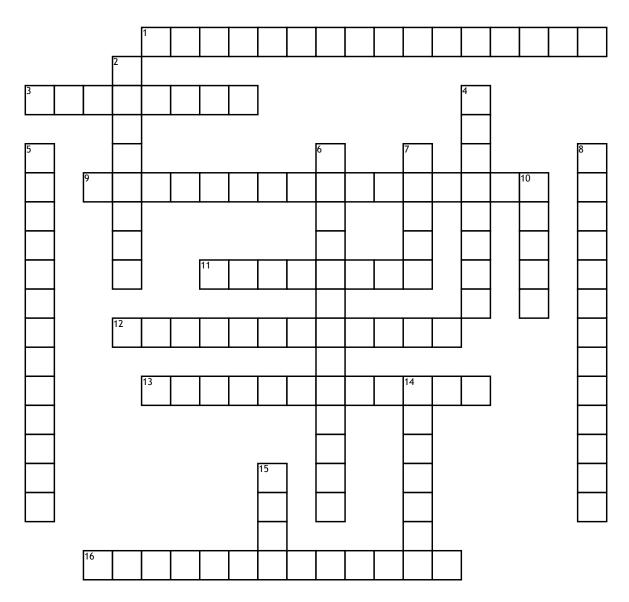
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## Motions & Forces Vocab.



## **Across**

- 1. A law stating that any two masses attract each other with a force equal to a constant multiplied by the product of the two masses and divided by the square of the distance between them
- **3.** The speed of an object in a particular direction
- **9.** Forces that are not opposite in directions and equal in size
- **11.** The combination of all the forces acting on an object
- **12.** The total distance traveled divided by the total time elapsed
- **13.** The rate at which velocity changes over time, an object accelerates if its speed, direction or both changes

**16.** The acceleration of an object is produced by a net force is directly proportional to the magnitude of the net force, in the same direction as the net force, and inversely proportional to the mass of the object

## <u>Down</u>

- **2.** A quanity defined as the product of the physical and chemical properties of that substance
- **4.** A force that opposes motion between two surfaces that are in contact
- **5.** Two forces acting in opposite directions on an object, and equal in size
- **6.** A force is a push or a pull that acts upon an object as a result of its interaction with another object

- **7.** A push or pull acted on an object in order to change the motion of the object
- **8.** 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
- **10.** He distance traveled divided by the time interval during which the motion occurred
- 14. The tendency of an object to resist be moves or if the object is in motion to resist a change in speed or direction until an outside force acts on the object 15. A measure of the amount of matter in an object