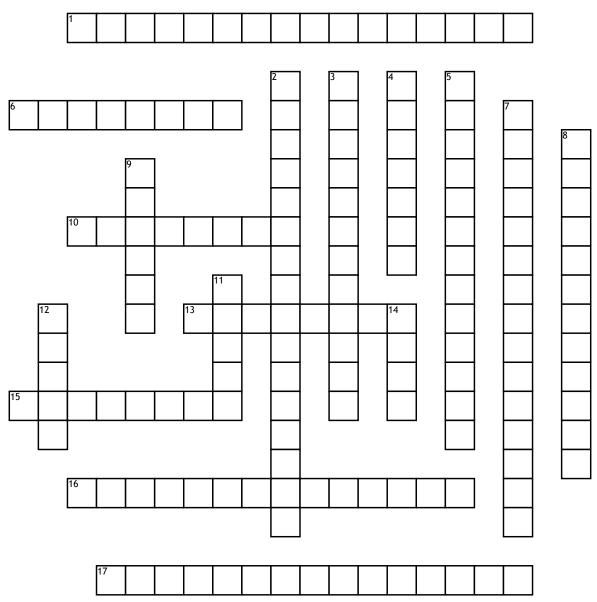
## **Motion and Forces Vocabulary**



## <u>Across</u>

1. When two forces acting on an object are not equal in size, we say that they are unbalanced forces.

**6.** The velocity of an object is the rate of change of its position with respect to a frame of reference, and is a function of time.

**10.** he force resisting the relative motion of solid surfaces, fluid layers, and material elements sliding against each other.

**13.** the product of the mass and velocity of an object.

**15.** the overall force acting on an object.

**16.** any two bodies in the universe attract each other with a force that is directly proportional to the product of their masses and inversely proportional to the square of the distance between them.

**17.** For every action, there is an equal and opposite reaction.

## <u>Down</u>

**2.** pertains to the behavior of objects for which all existing forces are not balanced.

**3.** n physics, is the rate of change of velocity of an object.

**4.** the resistance of any physical object to any change in its state of motion (this includes changes to its speed, direction or state of rest).

**5.** two forces acting in opposite directions on an object, and equal in size.

7. sometimes referred to as the law of inertia. 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.

**8.** On the average, your car was moving with a speed of 25 miles per hour.

9. How heavy something is

**11.** a push or pull upon an object resulting from the object's interaction with another object.

**12.** how fast something moves.

14. Anything that takes up space.