

Name KEY Per _____ Date _____

Newton's Laws of Motion POSTER

Sir Isaac Newton lived during the 1600s. Like all scientists, he made observations about the world around him. Some of his observations were about motion. His observations have been supported by more data over time; and we now call these Newton's Laws of Motion.

★ Newton's first law of motion says that an object in motion will stay in motion and an object at rest will stay at rest unless acted on by an unbalanced force.

○ An object that is not moving remains at rest until something pushes or pulls it.

○ This tendency to resist a change in motion is called inertia.

○ The more mass an object has, the more its inertia.

★ The second law of motion states that the force of an object is equal to its mass times its acceleration.

○ The more mass an object has or the more inertia it has, the harder it is to accelerate.

○ More mass means less acceleration if the forces acting on the objects is the same.

Newton's third law of motion states that for every action there is an equal and opposite reaction.

○ When one object exerts a force on a second object, the second object

exerts an equal force in the opposite direction on the first object.

○ The force exerted by the first object is the action force.

○ The force exerted by the second object is the reaction force.