

# Newton's First Law: Inertia

Inertia means that an object in motion will stay in motion in the same direction, or will stay at rest, unless another force acts upon it. For an object to change direction or stop moving, something has to overcome inertia.



## Key vocabulary

### **force**

Any action that changes the shape or the movement of an object.

### **inertia**

An object's resistance to any change in motion.

### **friction**

The force that slows down objects when they rub against each other.

### **speed**

The rate at which something moves.

### **velocity**

Speed and direction.

## Related articles

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### Newton's Second Law: Acceleration

You have heard of a car accelerating, right? Well, the same word can be used for any object. Here is how it works!



### Newton's Third Law: Action & Reaction

Every action has an equal and opposite reaction. Newton's third law of action and reaction explains how objects affect each other when they collide. See how it works!



### Gravity & Inertia

There is a special force of attraction that keeps our planet together. Do you know what it is?



### Force & Motion

If you want motion, you have to add force. But once you get something moving, what makes it stop? That is force, too!



### Properties of Matter

Matter is the stuff all around us, and all of it has mass and volume.