

NEWTON'S FIRST LAW OF MOTION

Show what you know about Isaac Newton's First Law of Motion! Match each vocabulary term to its definition by writing the correct letter on the line.

1. h Force

2. g Net force

3. c Balanced forces

4. f Unbalanced forces

5. b Gravity

6. a Friction

7. d Inertia

8. e Newton's First Law of Motion



Inertia is keeping this hockey puck from moving, but probably not for long!

- a. a resistance to motion that occurs when surfaces are in contact with each other
- b. an attractive force that all objects exert on each other
- c. when all the forces acting on an object create a net force of zero, and the object does not move
- d. the tendency of an object to continue its current motion or lack of motion
- e. states that an object at rest stays at rest and an object in motion stays in motion at the same speed and in the same direction, unless acted upon by another force
- f. when all the forces acting on an object create a net force greater than zero, and the object moves
- g. the sum of all the forces acting on an object
- h. any push or pull on an object

CHALLENGE! Think about how Newton's First Law of Motion applies to you. Imagine that you are riding in a car when the driver abruptly steps on the brake. Use Newton's First Law of Motion and any applicable vocabulary terms from above to explain why your body tends to move forward when this happens.

When a car is in motion, so are the passengers inside. The brakes of the car act on the tires, forcing the car to slow to a stop, but the brakes do not act on the passengers. Your inertia keeps you moving forward, even as the car stops moving.