

# Lesson 2 Newton's First Law

**Predict** three facts that will be discussed in Lesson 2 after reading the headings. Record your predictions in your Science Journal.

Main Idea

Details

## Identifying Forces




I found this on page \_\_\_\_\_.

I found this on page \_\_\_\_\_.

I found this on page \_\_\_\_\_.

I found this on page \_\_\_\_\_.

**Draw** the described forces. Use labeled arrows to indicate the forces on a box, and show the net forces in the column to the right.

Description	Drawing	Net force
1. A force of 200 N to the left and another force of 50 N to the left		
2. A force of 100 N to the right and a force of 80 N to the left		
3. A force of 180 N to the right and a force of 180 N to the left		

**Identify** the forces in the table above as balanced forces or unbalanced forces.

- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_

## Lesson 2 | Newton's First Law (continued)

### Main Idea

#### Newton's First Law of Motion

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#### Why do objects stop moving?

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### Details

 **Summarize** Newton's first law of motion.

If the net force on an object is zero,

an object at rest \_\_\_\_\_

an object in motion \_\_\_\_\_

 **Contrast** the motion of objects acted on by balanced and unbalanced forces.

object's motion + \_\_\_\_\_ forces

= \_\_\_\_\_ velocity

object's motion + \_\_\_\_\_ forces

= changed \_\_\_\_\_


 **Explain** the effect of inertia on objects at rest and objects in motion.

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 **Summarize** how friction and inertia act on an object sliding on a flat surface.

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 **Synthesize It** Look at the objects around you that are at rest. Explain why they are subjected to net forces of zero as opposed to no forces at all.

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