

Forces ▪ *Guided Reading and Study*

Newton's First and Second Laws

This section explains Newton's first and second laws of motion.

Use Target Reading Skills

As you read the section, use the graphic organizer to make an outline of the text. Use the red headings for the main topics and the blue headings for the subtopics. After you have completed the graphic organizer, you can use it to review the main ideas of the section.

Newton's First and Second Laws	
I.	
A.	
B.	
II.	
A.	

The First Law of Motion

1. For an unmoving object to start moving, a(n) _____ has to act on it.

2. What is Newton's first law of motion?

3. What is inertia?

4. What is another name for Newton's first law?



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Newton's First and Second Laws *(continued)*

5. The amount of inertia an object has depends on its

The Second Law of Motion

6. What is Newton's second law of motion?

7. What is the equation that describes the relationship among the quantities of force, mass, and acceleration?

8. Circle the letters of the two answers below that are different names for the same unit of measure.

- a. m/s^2
- b. N
- c. $kg \cdot m/s^2$
- d. 1 kg

9. How can you use Newton's second law to find force?

10. What are two ways to increase the acceleration of an object?

