

# Reading Guide for Newton's Laws

## Newton's First Law

Read p. 26 in *Conceptual Physics* then answer the following questions:

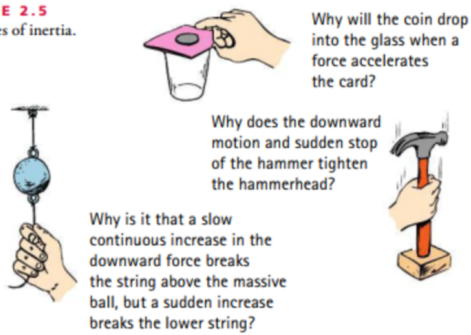
1. What is the key word in the Law of Inertia?
2. The figure below shows someone pulling a tablecloth out from under a place setting. Use the key word for the Law of Inertia to explain how this works.



**FIGURE 2.4**  
Inertia in action.

3. Pick one of these figures and explain what is happening using Newton's First Law.

**FIGURE 2.5**  
Examples of inertia.

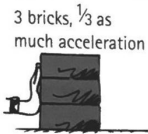
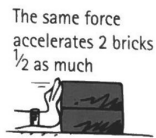
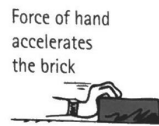


## Newton's Second Law

Read pp. 63-64 in *Conceptual Physics* then answer the following questions:

4. What does "directly proportional" mean?
5. What does "inversely proportional" mean?
6. How is acceleration related to net force and mass?

7. What is this figure trying to show?



**FIGURE 4.11**  
Acceleration is inversely proportional  
to mass.

## Newton's Third Law

Read pp. 75-76 in *Conceptual Physics* then answer the following questions:

8. What is an *interaction*?
9. Use the concept of interaction to explain why this guy doesn't topple over.



**FIGURE 5.2**

10. When you walk, you do so by exerting an action force with your feet pushing against the floor backwards. What is the reaction force?
11. If a car's tires push on the road as an action force, what is the reaction force?