














### What Do You Remember?









1. Name six simple machines and give an example of each. 
2. In your notebook, correctly match the words in Column A of Table 1 with the descriptions in Column B. 

**Table 1** Some Common Names for Forces

Column A	Column B
(a) friction	(1) pull on an object toward the centre of Earth
(b) compression	(2) squeezing a balloon
(c) gravity	(3) force that causes your face to return to normal when you stop pulling on your cheeks
(d) rotational force	(4) force that acts like a brake on two surfaces sliding together
(e) elastic force	(5) turning the key of a wind-up toy

3. (a) Give examples of forces in your daily experience that require direct contact to have an effect.  
 (b) Name three forces that do not require direct contact to have an effect.  
4. Draw diagrams of the three different classes of levers, showing the fulcrum, the input force, and the output force for each.  
5. (a) Name the two components that all forces share.  
 (b) How are these components shown on force diagrams?  
6. (a) What is the unit used to measure force?  
 (b) After whom is the unit of force named?  
 (c) What is the symbol for this unit?  
7. (a) Define “mechanical advantage.”   
 (b) Explain why there is a difference between actual mechanical advantage and ideal mechanical advantage. 
8. What is the mathematical formula used to calculate work? 

### What Do You Understand?

9. We sometimes use words differently in a science setting than we do in our daily lives. Examples of this are *force*, *work*, and *energy*.  
 (a) Use a dictionary to explain the difference between how each of these words is used in daily conversation and how each is used in science and technology. You may also want to go to the Internet for help.  

  
 (b) Do these differences in meaning make it easier or harder to learn science and technology? Explain.  
 (c) Are the words *mass* and *weight* part of this same problem? Explain. How should the terms be used?  
10. With a class 1 lever, does mechanical advantage increase or decrease as the fulcrum is moved closer to the load? Explain why. 
11. What is the approximate weight of a 2 L bottle of pop on Earth? Explain.  
12. Design a cartoon (Figure 1) that illustrates one of the concepts in this chapter.  



**Figure 1**