

1. What are the four objectives of this section?
  
2. Where does the energy come from in a roller coaster ride?
  
3. List 3 different kinds of energy that the original energy of a roller coaster is turned into.
  
4. What happens to the potential energy of the roller coaster
  - a. As it goes down the hill?
  
  - b. When it reaches the bottom of the hill?
  
5. What happens to the kinetic energy as the roller coaster goes down hill
  - a. As it goes down the hill?
  
  - b. When it reaches the bottom of the hill?
  
6. What happens to the kinetic and potential energy as the roller coaster goes up the smaller hill?
  
7. When you throw a ball up, how high will it go?
  
8. Why does a ball bounce back up?

9. Why does the ball not bounce back up to your hand?
10. Why can't a roller coaster keep going forever?
11. What is the law of conservation of energy?
12. What must be true if the energy of a system increases?
13. What happens to the energy that when a roller coaster slows down?
14. What is a system?
15. What is a closed system?
16. What is an open system?
17. What is useful work?
18. Why isn't all the work useful work?
19. What is efficiency?
20. Why are perpetual motion machines impossible?