
A2.5 Worksheet D: The Energy of Bounce

1. What happens to both balls when they are dropped from a height?

2. Which ball bounces higher, the partially inflated ball or the fully inflated ball?

3. Which ball applies more pressure on the ground? Explain!

4. The law of the Conservation of Energy says that

5. Fill in the blank and circle the correct answer:

Before the ball is dropped, it has _____ energy. We know this because the ball is/isn't moving but is about to fall.

6. When the ball is falling, it has _____ energy. While the ball is falling it has its maximum _____ energy.

7. Circle the correct answer!

After the ball hits the ground, does it:

- (a) return to the original height?
- (b) not bounce at all?
- (c) return to half the original height?

8. Explain your answer to question 7.

9. Fill in the blanks:

After the ball hits the ground, its _____ energy is converted to other forms of _____. When the ball hits the ground it makes a _____. Sound is a form of _____. Therefore we can say that some of the _____ energy is converted to _____ energy. After continuous bouncing the ball begins to heat up. This is caused by _____ between the ball and the ground. Heat is a form of _____. Therefore, we can say that some of the kinetic energy is converted to _____ energy. Finally, when the ball is bounced close to your feet you feel _____ from the floor. This is caused by some of the ball's _____ energy being converted to _____ energy.