FLINN SCIENTIFIC

Name_____

Kinetic Energy Ball Drop Worksheet

Questions

1. From what height was the ball dropped for the first drop? For the second drop?

2. Compare the indentations made by the ball in the first versus the second drop. How much deeper was the indentation caused by the second drop compared to the first drop?

3. Use the potential energy equation and the conservation of energy principle to calculate the kinetic energy of the ball just before it hit the clay after it was dropped from both heights. Assume the mass of the ball is 20 g.

4. Calculate the approximate velocity of the ball just before it hits the clay for both drops.

5. The purpose of this demonstration was to compare the kinetic energy of a ball when its velocity was doubled. Explain in words why the height that the ball was dropped from was increased by a factor of four in order to demonstrate this principle.