## Relationship between Potential and Kinetic Energy

The Ball Drop Investigation

|  | BOUNCE HEIGHT |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Starting <br> Height | Trial 1 | Trial 2 | Trial 3 | Trial 4 | Trial 5 | Average <br> Bounce <br> Height |
| 21 inches |  |  |  |  |  |  |
| 42 inches |  |  |  |  |  |  |
| 64 inches |  |  |  |  |  |  |

What patterns or relationships do you see in the data? $\qquad$
$\qquad$
$\qquad$

When did the ball have the most potential energy in this investigation? Explain your answer. $\qquad$
$\qquad$
$\qquad$

How is the potential energy in the ball changed to kinetic energy this investigation? $\qquad$

How is the kinetic energy in the ball changed back to potential energy? $\qquad$

Not all of the ball's potential energy was converted into kinetic energy. Where did this energy go? $\qquad$
$\qquad$
$\qquad$

A basketball player throws a ball into the air and catches it before it hits the ground. Label where the ball has potential energy, kinetic energy, and two different energy conversions.

