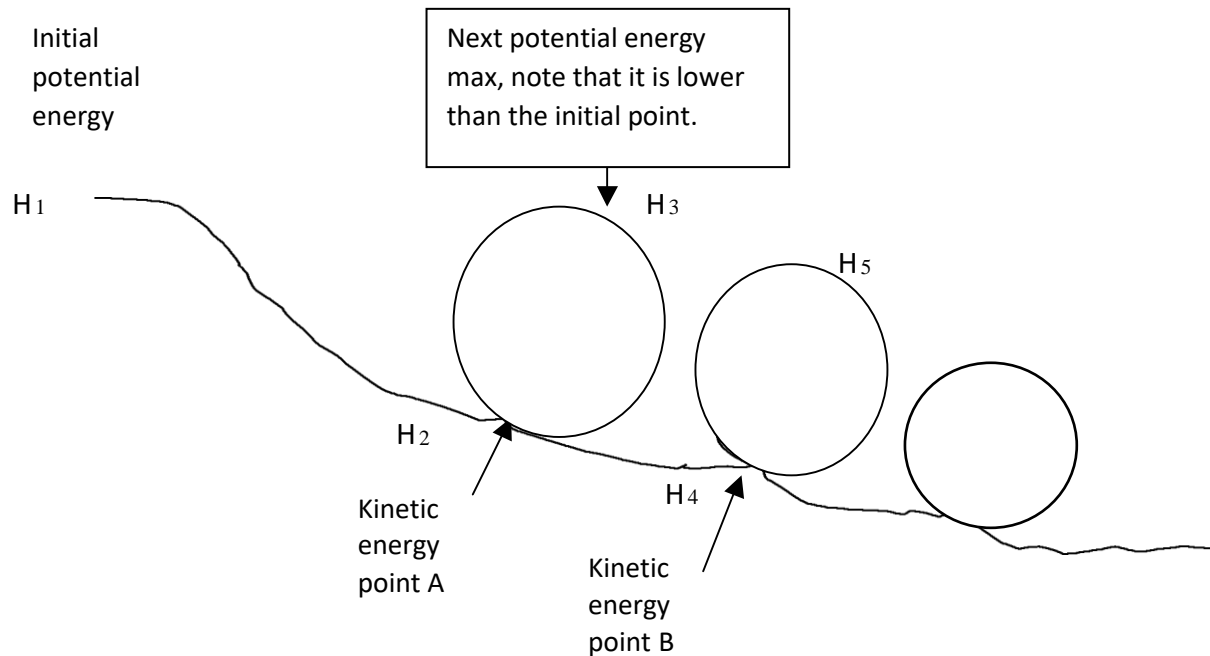


Worksheet 1: Reference Diagram



Ideal Kinetic Energy at point A $KE = PE = (\text{mass}) \times (H_1 - H_2) \times (\text{gravity})$

Ideal Kinetic Energy at point B $KE = PE \text{ at } H_3 + KE \text{ at } H_3$
 $= (\text{mass}) \times (H_3 - H_4) \times (\text{gravity}) + (\text{mass}) \times (\text{velocity at } H_3)^2 / 2$

If the marble has little or no velocity at H₃ then the kinetic energy is negligible and the kinetic energy at point B is a function of the potential energy, or height difference from the top of the previous loop-de-loop to the start of the next one.