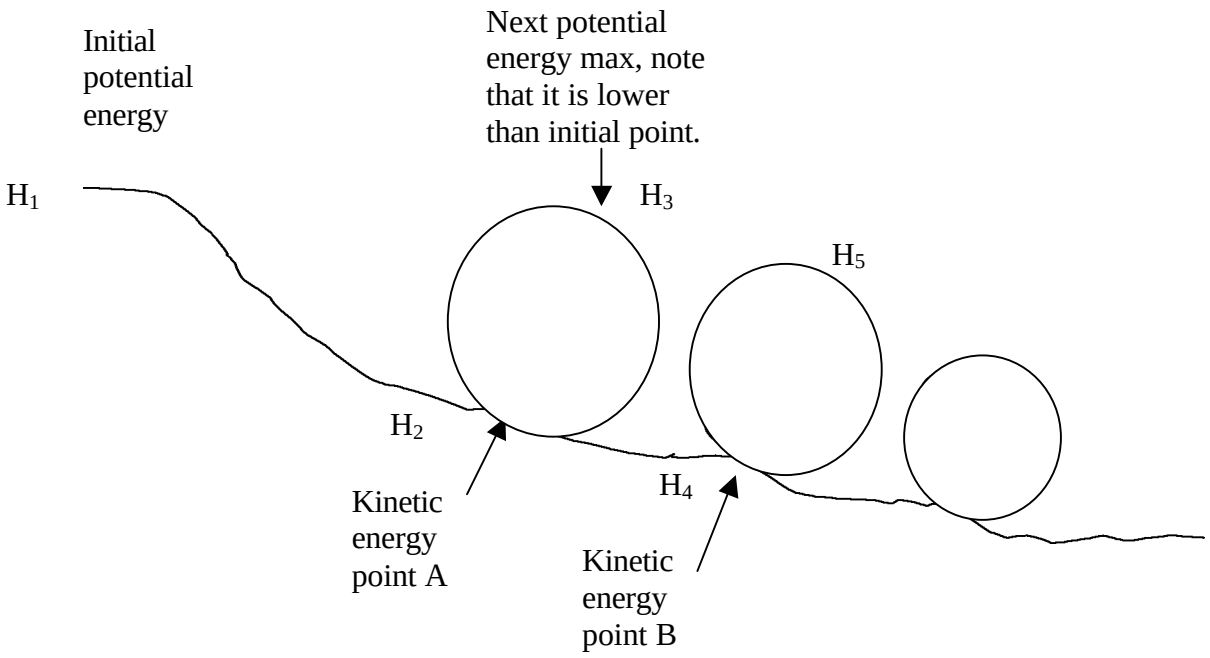
Worksheet 1: Reference Diagram



Ideal Kinetic Energy at point A KE = PE = (mass) x ($H_1 - H_2$) x (gravity)

Ideal Kinetic Energy at point B KE = PE at H_3 + KE at H_3
= (mass) x ($H_3 - H_4$) x (gravity) + (mass) x (velocity at H_3)^2 / 2

If the marble has little or no velocity at H_3 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.

Making the Connection
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