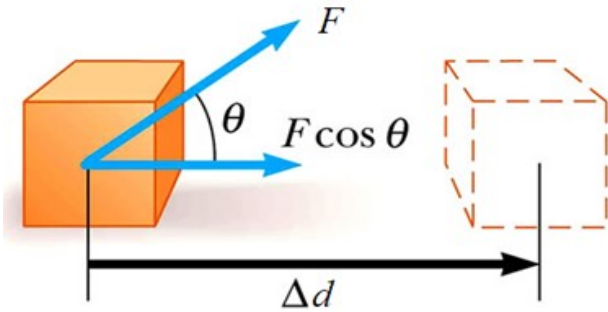# Reviewing Work and Energy
SPH4U

Work is the _____ transferred to an object when a _____ moves it

through a _____ :

Example: A book of mass 1.5 kg sliding across a table is brought to a stop in 1.0 m. The coefficient
of kinetic friction between the book and the table is 0.36. What is the work done by
friction on the book?

Friction reduced the _____ **energy** of the box:

Example: What was the initial speed of the book?

<u>Work and Centripetal Force Example</u>:
A tension of magnitude 18 N is exerted on a mass of 2.0 kg to make it move in a horizontal circle of radius 1.0 m at a speed of 3.0 m/s. What is the work done on the mass during one cycle?
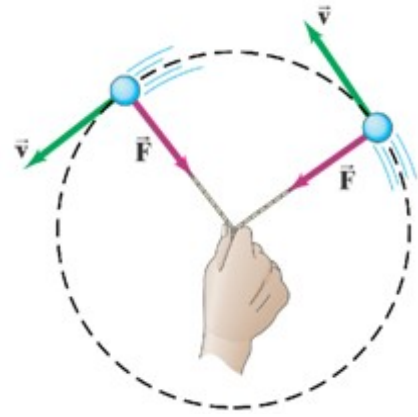
Work can also be done to increase the **gravitational potential energy** of an object:

<u>Example</u>:   On your desk you have N identical coins, each with a mass m. You stack the coins into a vertical pile to a height y. If you put one more coin on top, what will be the gravitational potential energy stored in the stack?

Textbook Questions:

    p. 181 #4, 5
    p. 186 #4, 5
    p. 191 #4