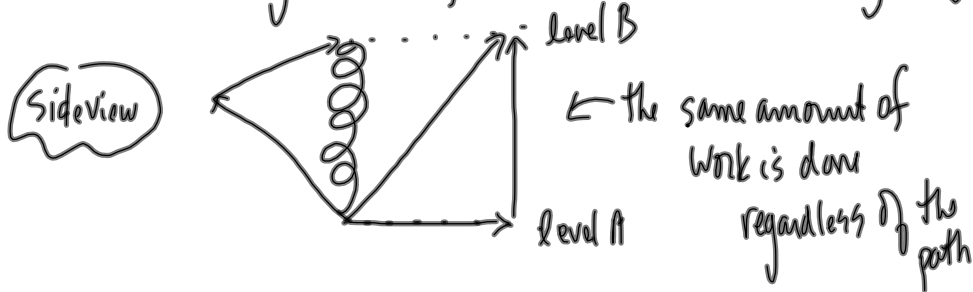
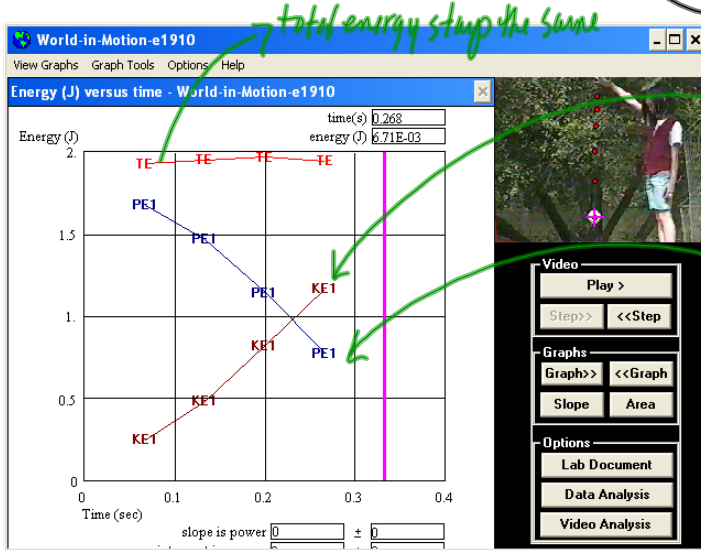


§7-1 Energy Transformations

Conservative force - a force that does work on an object in such a way that the path does not matter. (i.e. gravity)



Non-conservative force - a force that does work on an object and the work done depends on the path (i.e. friction)

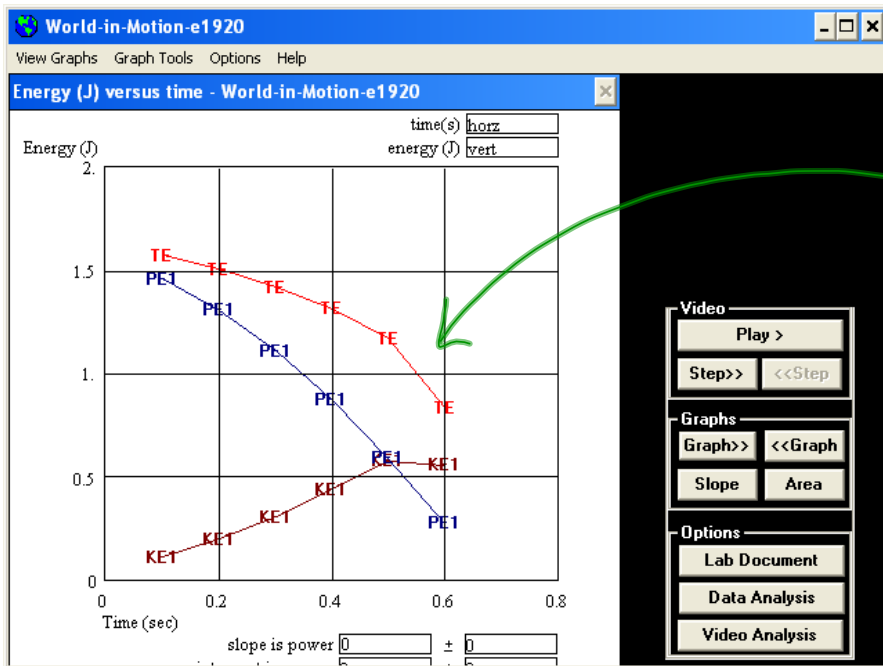


Law of Conservation of Mechanical Energy:

$$E_{total} = E'_{total}$$

(before) (after)

$$E_g + E_k + E_e = E'_g + E'_k + E'_e$$



Beach Ball Drop

Note that the total energy decreases due to negative work being done by air resistance which is a non-conservative force.

After Quiz:

- ① World-in-Motion Video Analysis questions
- ② Read p 280-284

World-in-Motion-e1910

Video Cursor Lines Circles Video Scale FPS Gravity Defaults Help

Time (s)	0.333	X (m)	1.582	Mass 1 (kg)	0.17
Frame	10	Y (m)	1.224	Mass 2 (kg)	0.00E+00
Step by	2	Min Frame	0	Max Frame	11

File I/O

Open Video File

Lab Document

Save

Exit

Video

Play >

Step>> <<Step

Data Set 1

Graphs