JPT Tracker Instructions:

https://physlets.org/tracker/

Open the video file in Tracker (sometimes works best if you drag the file in)

Using the 'film strip' button, select a sensible number of frames (100-200 is plenty). You can also omit any 'messy' frames at the start of the motion by setting the start frame later than 1

Apply the 'ruler' tool to the scale item you have included in your first frame

Click the 'Create' button and create a point mass

Click on the new window that opens (usually Mass A with a red diamond symbol) and choose Autotrack from the menu

Shift-CTRL will open a 'target' mouse icon that you can move to your chosen tracking point, click on this and a dotted frame search box will appear

Adjust the size of the frame search by dragging the bottom right square block to make sure the search rectangle is large enough to track your object from frame to frame

Press 'Search' in the auto track window and the chosen point should be tracked - if not, try again!

Look at the graph produced - open 3 graph frame by clicking on 'Plot' at the top of the window

Change the y-axis to x; vx and ax (or y,vy and ay if your motion is vertical in your frames) and many other parameters – mass can be entered in a box under the menu bar for force, momentum etc