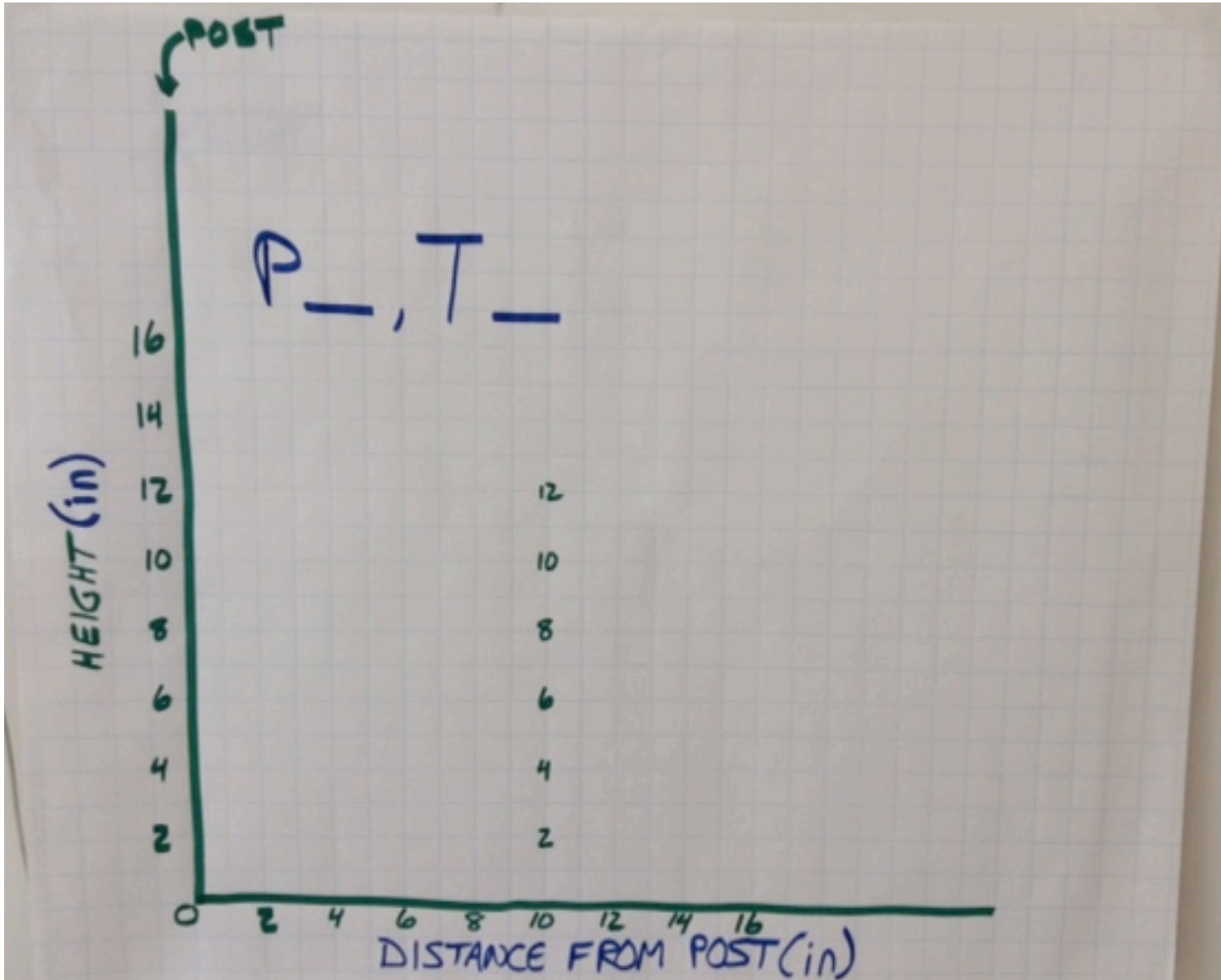


PS2 Activity 5.3 - Pendulum Tracking

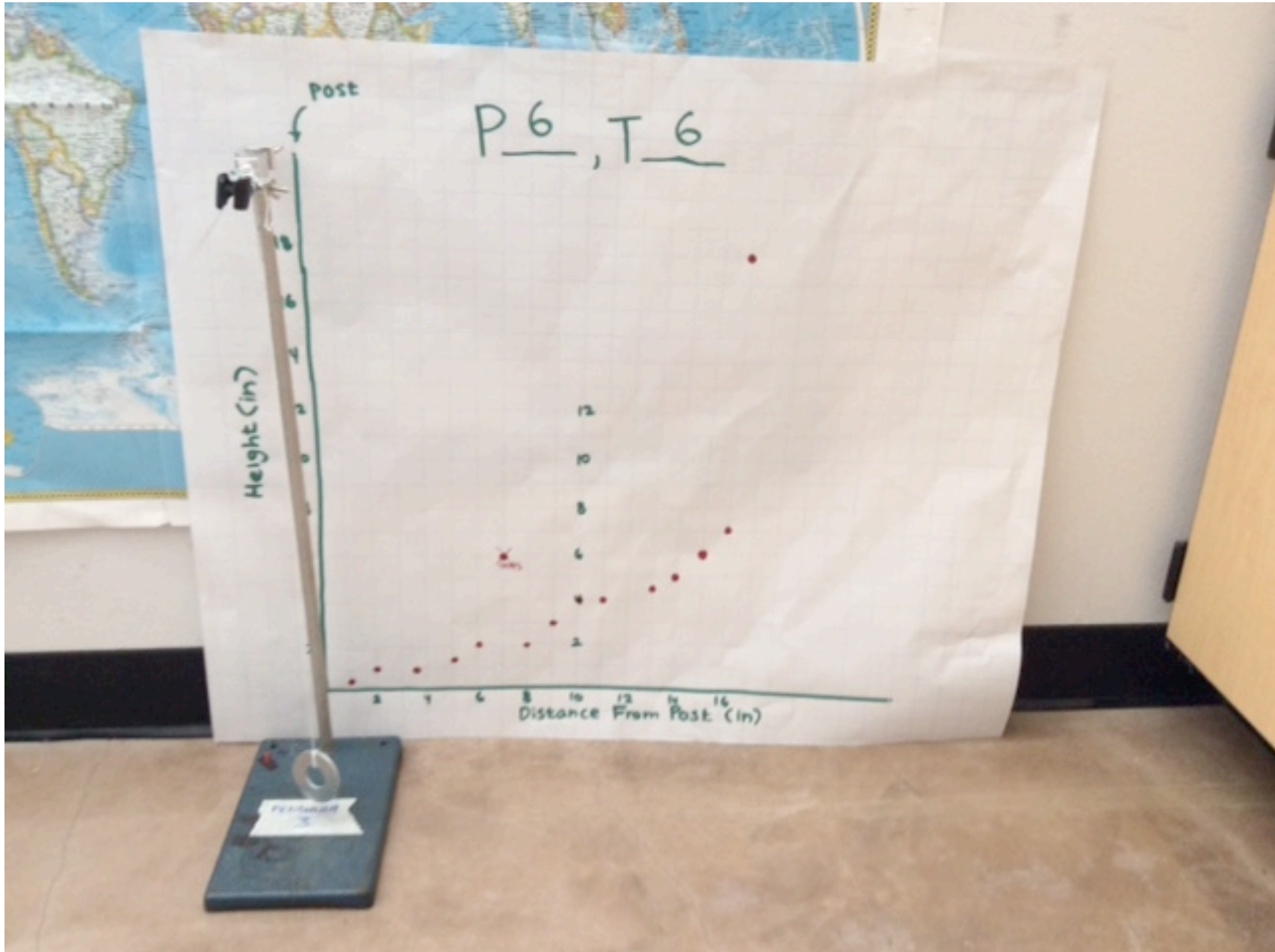
Check off each step as you complete it.

1. Read SN p54 & 55.
2. Complete the prediction on p54 – 2 sentences. Use the word because. Include an estimate of how much elevation (GE) you think the pendulum will lose between swing 1 and swing 10.
3. Cross out the procedures on SN p54 and write “see iPad.”
4. Set-up your graph paper as shown on the next page.
5. Raise your hand so I can check your graph and predictions
6. Tape the paper to the wall so that the x-axis on your graph paper is at the same height as the bottom of the weight on the pendulum.
7. Place the pendulum against the paper so that the y-axis lines up with the pendulum post.
8. Mark the pendulum post height on your graph’s y-axis.
9. One person needs to film the pendulum from just before it is released until it almost stops moving. If your pendulum hits the post, you need to start over. Make sure you are filming straight on (perpendicular) to the pendulum, not at an angle and you do not move during filming and your iPad is at ground level.
10. Mark the release point for the pendulum on your graph paper. This should be a height where the string is about a 45 degree angle from the post.
11. When the pendulum has mostly stopped, take the paper and pendulum back to your table.
12. Use the pause function on your video to plot the end of every 5th swing on your graph paper. One swing = 1 round trip of the weight. Write the number of the swing you plotted above it on your graph (5, 10, 15, ...)
13. Everyone needs to take a photo of the completed graph paper. You might need to stand on a chair so that your photo is straight down, not angled.
14. Complete questions 2 -4 on SN p55

Graph set-up



Pendulum set-up w/ graph – data is plotted after you film.



Optional countertop pendulum set-up. You will still need the graph paper taped behind it.

