

Traditional: 11-03

Themed: 01-03

Short Pre-lab slinky notes

Don't kink the slinky...please!

- It's really hard to fix a kinky slinky
 - Don't go insane with your slinky (reasonably gentle)
 - Always walk your slinky to your partner
- Failure to do so can result in
 - Financial penalty (this actually happened in the last year, no lie!....the person said, I can fix it, no problem, after about 20 minutes, he said, okay, how much do they cost!)
 - A call home (this actually happened twice in the last year, again: no lie!)
 - A vexing look from your teacher and possible raising of his voice
 - Putting your teacher in a bad mood, which can result in less generous grading of the slinky lab quiz you may get!

Other slinky tips

- Keep the medium uniform
 - Keep the same slinky length for all trials you compare
 - Use the same number of coils for all trials you compare (don't change medium properties mid-experiment....you know what I mean by "medium"?)
- For #4, don't have the slinky too loose...longitudinal waves need moderately tight coils (but DON'T over-stretch, this can ruin your slinky)
- Skip #5
- For #7, #8: Interference happens very fast, use logic and those lightning quick reflexes of yours to see what happens
- For #10, you will need to move your arms very far left and right for the first harmonic.

Final slinky tips

- Have fun
- Understand what you're doing as the curious scientist we both know you are
- Think about the notes for this you are demonstrating:
 - Fixed end reflection
 - Wave speed's independence of amplitude and frequency be the first student ever to read the TITLE of part 3 and win a prize! (my bad sense of humor again)
 - Standing waves
 - Longitudinal vs. Transverse waves (please NOTICE the vibration direction and the wave motion's direction!)
 - Harmonics (the natural frequencies that produce standing waves)
- Have fun (did I already say that?)