

Lab Report for 'Magnetic Effects on a Wire' due on Friday, 1/11/19

- Mon. 1/7 1) Density and fluids overview from previous AP exams
2) HW: Read parts of Ch. 11 (sections 11.1 – 11.8, but you may skip 11.2) for a reading quiz/discussion on Weds., 1/9
- Tues. 1/8 1) Demonstrations - Heat and Temperature ILD's
- Weds. 1/9 1) Ch. 11 reading quiz and/or discussion – you should have meaningful notes
2) Ch. 11 (of the sections covered) discussion – work, Thermodynamics, entropy, temperature
3) Introduction to Thermometry lab (open-ended) and planning
- Thurs. 1/10 1) LAB: Thermometry – calibration
2) HW: Ch. 11 conceptual questions due Monday (on handout)
- Fri. 1/11 1) Collect lab reports
2) LAB: Thermometry Challenge – Complete any written work for Tuesday
- Mon. 1/14 1) Check/ go over Ch. 11 conceptual questions
2) HW: Read part of Ch. 12 [sections 12.8 and 12.9 up until Fick's Law (for conceptual understanding of diffusion only)] for Tuesday – For your notes, please write one thing you learned about each type of energy transfer in section 12.8, and one question you have about each type of energy transfer
- Tues. 1/15 1) Discussion - Methods of energy transfer
2) Demonstrations – diffusion, heat transfer, convection
- Weds. 1/16 1) Sample problems for Ch. 11-12 (for sections covered thus far)
2) HW: Complete Ch. 11 HW for Monday, 1/21: Problems 4, 5, 32, 33, 34, 35, 39, 43, 52, 64 & 66
- Thurs. 1/17 1) PhET open-ended simulations: Gas properties exploration
- Fri. 1/18 *No school for students – professional development day*

A look ahead: You'll need to read and take notes on sections 12.1 – 12.4 for a reading quiz on Tuesday, 1/22

Lab write-up format 2018-19 for AP Physics

Please make sure to title the lab and write your name and date on the lab, even if shared electronically.

1. Purpose:

- Put in your OWN words!! The intended purpose will not always be the same as what is in the lab(s). This should be to the point.

2. Set Up:

- Use drawings/schematics to aid in making your procedures brief. "Synthesize" elements from the lab and make sure another group could understand well enough to repeat what you do.

3. Data:

- Use tables and graphs. Label the measurements and what units you used thoroughly.

4. Calculations:

- Use three steps.
 - A) Formula
 - B) Actual data replacing the variables
 - C) The answers with correct units

5. **Analysis and Results:**

Analyze your results and interpret what they mean based on your findings. Be sure to include relationships and references to your data and calculations. You may want to include reasons for experimental error, possible improvements to the experiment, etc. here. The *analysis* of what went right, what went wrong, and how your lab could be improved are important. The amount of analysis is the most important part of your lab write-up. ALL lab analyses should include a discussion about the specific uncertainties and specific errors within your experiment, and these should be based on the method and quantity of data you collect.

A conclusion to any lab should be your unique answer to “What did I learn, and how did I learn it?”

Please note: These days, there's really no excuse for a non-typed write-up. After all, you can share it with me on your Drive, email it to me, or print it off from a flash drive or other source.