Your assignment: write a long letter/story to your high school physics teacher (or some other mutually-agreed-upon physics-knowledgeable person) about your experiences with the “Are light ‘bulbs’ Ohmic?” experiment (‘bulbs’ is in quotes because I want you to address both regular incandescent bulbs and LEDs in your letter), including the following ingredients:

1. Start with a personal note that connects to the reader and introduces why you are writing.
2. Describe in your own words the *a priori* teacher-provided goals of the investigation, as well as any personal goals that you might have had for the project as it developed, and how well they meshed, if appropriate.
3. Describe your overall method you used to attempt to accomplish the goals.
4. Describe your set-up with neatly drawn diagram of circuitry and components along with some helpful and useful commentary for the reader about subtleties of the set-up.
5. Present data for something that does appear to be Ohmic using a graph and the techniques discussed before as a benchmark for your comparison to lightbulbs and LEDs.
6. Present data (graphical) that addresses whether light ‘bulbs’ are Ohmic and incorporates the uncertainty analysis that we have learned in a way that could be reproduced by the reader. Feel free to include a data table as an appendix to your letter.
7. Present some commentary based on your data that addresses “Are light bulbs Ohmic?”. Focus on what evidence you have amassed for or against, and your uncertainties.
8. Characterize and quantify the extent to which your light ‘bulbs’ are or are not Ohmic by commenting on the value you might get for the resistance of a light bulb if you only took one data point and whether this number (with units) tells the complete story.
9. Identify and comment about any aspects of mathematics, or of physics, or of experimental science in general, that you think you understand better now because of this project.
10. Looking back, what surprised you most about the project? Were your goals accomplished? Looking forward what might you pursue next?
11. Indicate and discuss in closing at least one aspect of the project that connects in some way to the reader to whom the letter is addressed, based on your mutual history.