Today: Graph Your Data (Paper Practice)

10-Sep	Best Practices with Lab Notebook	50% after Oct 22 — University Safety Requirement
15-Sep	MOKE Hands-On Demonstration	
17-Sep	VSM Hands-On Demonstration	50% after Oct 13 — Important Papers. Why? (2-5)
22-Sep	How to Give Peer Feedback and Group Project Planning	ZERO after Nov 17
24-Sep	Planning Group Oral Reports and Peer Grading	Mini Reports (in class)
29-Sep	Group Project Planning and Refinement	Quality Reading on Perusall
1-Oct	Assessing the Quality of Materials	Project Proposal
6-Oct	Best Practices with Graphing	Good/Bad Graphs 2 points
8-Oct	Fall Break (No Class)	ZERO after Nov 5
13-Oct	Introduction to Excel: Spreadsheets, Graphing and Fitting	
15-Oct	Understanding and Processing Your Data	10 points Lab Notebook Check-In
20-Oct	Building a Story with Your Data When It Isn't Obvious	50% after Nov 5
22-Oct	Check-In and How Are Materials Grown	ZERO after Nov 17
27-Oct	How to Give a Good Talk	
29-Oct	Peer Evaluation of Lab Notebooks (Bring Notebooks)	
3-Nov	Election Day (Vote If You Can)	
5-Nov	Project Speed Dating: Share Your Project with Others	10 points Graphs of Your Data 5% Bonus
10-Nov	Time for groups to Discuss Presentation/Data Planning	
12-Nov	10-15 Min Group Presentations — FeS/LSMO	40 points Presentations No Bonus
17-Nov	Rest	Presentations No Bonus
19-Nov	How to Write a Good Abstract	
1-Dec	Ask Your Final Questions of Instructor, Partners or Class	5% on time bonus
3-Dec	Discussion of Research and Scholarship Opportunities	Abstract & Notebook
		40 points 30 points

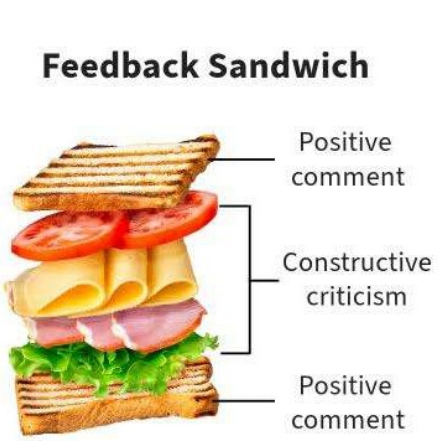
Good/Bad Graphs
Bring in examples of good and bad graphs from a paper. I don't need the whole paper. Discuss why you think they are good or bad. DO NOT just google looking for good and bad graphs. I want YOU to practice recognizing what makes a graph good or bad-- not someone else. It's ok if we disagree on what is good or bad.

Will I still accept this assignment?

Assignment	Total Points	Late Penalty (already)	**Last Date to Get Any Points**
Safety Requirement	6	50%	None. Just want you to do it.
Important Papers. Why?	10	50%	Nov 17
Good/Bad Graphs	2	none	**Nov 5 (TODAY)**
Lab Notebook Early	10	50%	Nov 17
Graph Your Data (Paper Practice)	10	50% after Nov 12	Nov 19

Giving Good Peer Feedback

"It's terrible/great" is not helpful.





What works?
What is unclear?
What could make it better?

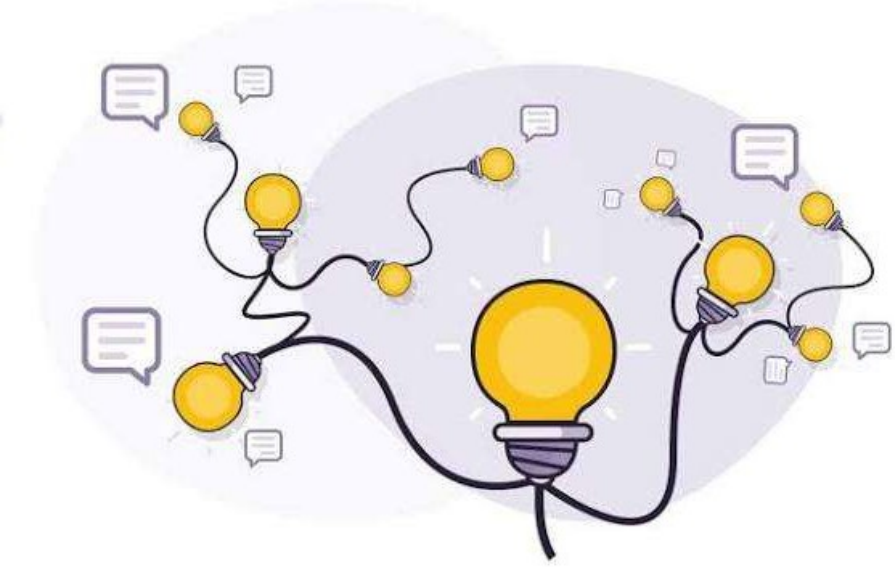
Do you have ideas they might consider?



Keep in mind

None of you knew any of this stuff 12 weeks ago.

Don’t be too harsh. You are still learning, but **how can you make the most of the next 3 weeks?**



Science is teamwork!



~5 minutes per person. If you talk less, then more time for questions. (I may adjust this time as needed.)

- When you match with a classmate, you trade off talking about your work and giving feedback.
- When you match with anyone else, the focus is on the 293 student and us helping you think about how to improve your project and motivation

You don’t have to follow this list, but can:

- What material did you measure? Why scientifically is this material interesting?
- Why do you think this work could be important?
- What kinds of magnetic measurement did you do? Why did you do that?
- What did you observe? Why might this be important?











Do we need a quick group discussion before we move into “speed dating”?

Front and back of room

- Front: instructor, TAs, past 293, and
- Pick someone on the opposite side that you haven't yet had a speed date with today;

Everyone else



Back of the room:
Altermagnet groups
+Shelby +Durham



Group Debrief

- Discuss with your group what you learned from this experience.

Examples:

- Did you get good questions?
- Did someone have a good way to present something that you think could be good for you too?

Today in your lab notebook, write down what questions you still need to answer before your presentation.

Reflection is scientifically shown to improve your learning.

