Teaching a laboratory:
An introduction to the basics of being a good laboratory instructor

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Task for you to work on in groups

Light a bulb using only a wire and a battery.
How have you seen labs taught in the past?

• What did the instructor do?

• What did you like and what didn’t you like?

• What did you feel was helpful and what did you feel was not helpful at all?
There are many different kinds of labs.

- “Cookbook” labs *(Do X. Measure Y. Now do Z.)*

- Guided inquiry labs *(Questions in the written materials scaffold the investigation and there is an emphasis on reasoning.)*

- Experimental design labs *(Design an experiment to examine the relationship between X and Y.)*
Do you have any questions for us about teaching labs?
For any kind of lab you may be asked to teach:

- Attend all TA preparation meetings and work through the experiments as a critical learner before you teach.

- Ask students questions to: (a) probe their understanding, and (b) guide them to develop their own understanding. Do not wait until students ask you questions.

- Listen to students.

- Take note of what works well and what doesn’t so that you can provide constructive feedback to the course instructor.

- Share your excitement about laboratory work. Even simple experiments about basic content can engage students.