

Tips for Working as a Group

Working with other students as part of a small research team is a rewarding experience. There is an abundance of evidence in the educational literature that the process of discussing an experiment with others leads to a deeper understanding of both the specific experiment and the broader science underlying the experiment. In addition, working as part of a group is a valuable skill that is of increasing importance to employers, to graduate programs, and to the health professions. Indeed, you will spend most of your professional career working closely with others. An effective group, however, does not happen without some effort on your part. The following tips will help you get more out of this experience.

Forming Groups and Assigning Responsibilities. Whenever possible, each group has three members (with groups of two only when absolutely necessary). Assignments to groups are made by the instructor to ensure that groups are balanced in terms of academic backgrounds (e.g. prior coursework, major vs. non-major, prior research experience, etc.).

Working as a group can be a chaotic experience if no one knows who is responsible for completing tasks: Who is responsible for searching the library or internet for the information needed to make decisions?; Who is responsible for gathering together equipment?; and, Who ensures that the electronic laboratory notebook is up-to-date?

Groups work best when each member has a specific set of responsibilities. For the first three project-based labs, each of you will take on one of these three roles, which will, in turn, define your final product for the lab:

Role	Final Product	Responsibilities
Manager	formal lab report	organizes all aspects of the group's work both in and out of lab; makes all final decisions on experimental design; determines when sufficient work is complete
Chemist	short report	prepares solutions; weighs out samples; carries out the experiment
Technician	oral report	sets up, calibrates, and optimizes the group's equipment; maintains the group's electronic laboratory notebook

For the last project-based lab, you may divide up the work as you see fit. Because the preliminary experiments are scripted and do not require advanced planning on your part, specific roles are not assigned, although each of you will take the lead in preparing the first draft for one of the group's written reports.

Speak Up When You are Confused and Listen to Each Other. A critical part of working together is ensuring that each group member understands the experiment's goals and understands how your individual efforts help accomplish those goals. If you don't understand something, no matter how trivial it seems, then speak up and ask questions. If one member of the group asks a question, then the remaining group members should ensure that the question is answered satisfactorily before continuing; never sacrifice one group member's understanding for the sake of expediency.

Be Responsible. By participating in a group you assume responsibility for each other. Remember that your effort affects not just yourself, but it also affects others in your group. When each member of a group lives up to his or her responsibilities, the group's work inevitably is better.

Respect Each Other. Even the best group has disagreements. If a disagreement occurs, take a break to cool down and, as a group, try to talk through the problem. Remember to respect and listen to each other.