

Managing Elementary Students During Classroom Experiments

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The science consultants of the Los Angeles County Office of Education have developed some very "easy-to-follow" steps for managing and grouping elementary students during classroom experiments.

- Experiments should allow students to work together and learn from one another. Groupings of two to four students are ideal; larger groups tend to leave some students idle. It is important that everyone in the group is actively involved in the activity, so the larger the group the more important it is to give everyone a job to do.
- Some teachers allow students to choose who they work with; friends often work well together and enjoy the activity more that way. Other teachers develop students' abilities to work with others by assigning groups that don't know each other so well. Some students are less likely to mess around if they are separated.
- It can be good to assign students of similar abilities to work together so that they can interpret the activity at the level that suits their own stage of development. On other occasions, you might want to "apprentice" a weaker student to a stronger student, to learn how to work at a higher level or to develop stronger language skills.
- One way to manage groups of four is to have a "reporter," a "getter," a "starter," and a "recorder." In addition to whatever practical tasks are involved, these responsibilities can keep all students actively interested in what is going on.

The following lists discuss the roles and responsibilities for each member of a lab team of four. Each of the four "roles" can be copied on heavy card stock, laminated, and provided to each group of four students.

The "**reporter**" is in charge of reporting what the group has done. The "reporter" needs to ask the following questions:

"Did everyone have a chance to speak?"

"Did we listen to everyone?"

"Did I report what the group wanted me to say (or just what I wanted to say)?"

The "**getter**" is in charge of picking up materials and making sure that the group works safely. The "getter" needs to ask the following questions:

"Did everyone follow the safety rules?"

"Did everyone share?"

The "**starter**" is in charge of handing out materials and helping all members of the group. The "starter"

needs to ask the following questions:

"Did everyone do the task?"

"Did everyone get the help they needed?"

The "**recorder**" is in charge of writing down or recording what the group discovers. The "recorder" needs to ask the following questions:

"Did everyone give their ideas?"

"Did I write down everyone's ideas?"

- Students must wear goggles to protect their eyes from injury. Students often put goggles up onto the top of their heads and forget about them, so you need to remind them that the top of their head is not the part which needs protection! Students may also wear aprons to protect their clothes from spills; an easy way to provide aprons is to have each student bring a man's old shirt from home.
- You should have a dustpan and broom and a glass disposal box handy whenever students are working with equipment made of glass. Any cardboard box will do as a glass disposal box, provided it can be closed up with tape. Whatever you do, do not allow students to clean-up broken glass! The teacher should be the only person to clean up broken glass, no matter how large the pieces are. It is very important to tell your students that no matter how much they want to help the teacher, they should never touch broken glass.

There are many other "safety tips" the elementary teacher should be aware of. Consult your county office of education science experts. They will be able to help you become knowledgeable of other elementary science safety practices that were not covered in this article.

Running science experiments in the classroom can seem challenging at first. Groups of students are distributed around the room, each with their own set of equipment, and as a teacher you can't be everywhere at once! Unfortunately, accidents do happen. However, with careful planning and some experience, you'll find that experiments are easily manageable and very rewarding, leading our students to become scientifically literate and ready for life in the 21st century.