

# **Planning Lessons for Your Adopted School: Issues to Consider**

A guide for professional scientists doing volunteer work  
in the classroom.

by

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### **I. Laying the Groundwork**

- A. How can you support the curriculum?
  - 1. Familiarize yourself with the county curriculum and your school's plan of implementation.
  - 2. What expertise do you have that can enhance this program?
- B. Initial contact with the school.
  - 1. Should you start with the principal? He or she can advise you on the most appropriate grade level or class for what you would like to do.
  - 2. Should you start with a teacher? You may already know that you want to volunteer for a particular teacher. After discussing your idea with the teacher, make sure you also make contact with the principal. It's good politics.
- C. The Planning Session: Who's responsible for what and when?
  - 1. Set a mutually acceptable time frame -start time and end time -and stick to it. Just like you, teachers usually have to jockey complicated interdependent schedules.
  - 2. Politely, make clear up front that you expect the teacher to be there to oversee discipline.
  - 3. Make sure both you and the teacher are clear on who will supply what materials and equipment. If you need something like an overhead projector, give the teacher plenty of notice so she can sign up for it.
  - 4. Does the teacher need to prepare the students in any way?
    - a. Be prepared to provide materials such as pamphlets, photocopied materials etc. Teachers often have limited copying resources available.
    - b. Do students need to have any materials at their desks ahead of time?

### **II. Planning the activity**

- A. What is the point of your activity and how does it relate to the curriculum?
- B. Is your activity appropriate to the grade level? If you are unsure, discuss this with your cooperating teacher in the planning session.
- C. Does your activity require more than one class session?
  - 1. Can you schedule one or more follow-up visits?
  - 2. Is your co-operating teacher (really) willing to do follow-up activities if you provide materials, etc.?
  - 3. What If you run out of activity before you run out of time?
    - a. You might time a practice presentation.
    - b. Overplan with related activities or discussions.
    - c. Gracefully wind up.
- D. How do you plan to actively involve the students?
  - 1. A pencil and paper activity is rarely active involvement.
  - 2. A demonstration might be a good ice-breaker or wind-up but it is not active involvement.
- E. Do you need to divide the class into groups? (If so, make sure you plan with the teacher ahead of time to have them conveniently arranged.)
  - 1. How big should the groups be?
  - 2. How many groups should there be?
  - 3. Should the groups be segregated by gender or mixed?
  - 4. How many students are in the class?
  - 5. Are there likely to be visitors from other classes?
- F. What Materials will you need?
  - 1. Do you need enough for each child? each group? the class?
  - 2. Can students keep any materials?
  - 3. Should students be expected to have certain materials on hand such as rulers, pencils, magic markers?  
(Discuss this with the teacher in your planning session.)
- G. What health and safety considerations are associated with this activity?

1. Sharp tools?
2. Glass?
3. Dangerous chemicals?
4. Hairy or biting animals?
5. Potential disease?

H. Political considerations:

1. Are animals being treated in a humane way?
2. Is the activity environmentally sound?
3. Are there religious or cultural differences in the class, which should be considered when planning your activity? Discuss this with your cooperating teacher.  
She will have appropriate strategies for coping with the particular diversities of her class.

I. Will you need to adapt this activity for visual, hearing or mobility impaired students? (Determine this in your planning session.)

III. You're On!

A. Breaking the Ice.

1. Prepare a BRIEF introduction of yourself. The cooperating teacher will probably do it for you, but what if there is a sub?
2. No more than 2 minutes.
3. Concentrate on professional aspects of your biography, but if you are a woman you might want to say something about how a science career has not interfered with your active/happy, social/married life.
4. Pick up the rest of this discussion in a wrap up at the end.

B. Get their attention.

1. Ask a clever question that gets them on the topic.
2. Do a brief, showy, clever demonstration that is related to the activity.

C. Explain what they will be doing and the rules. Kids are much more comfortable and cooperative if they understand the game plan.

D. Keep the kids involved.

1. Ask lots of leading questions throughout the activity.  
(Make sure you ask boys and girls equally.)
2. Give them plenty of time to explore and formulate answers. (Watch out for gender bias here. We tend to jump in and help girls while giving boys more time to work things out on their own.)

E. Wrap it up with a discussion.

1. Ask questions that will enhance their understanding of the concepts.
2. Discuss career possibilities involving this kind of experiment, activity, or field of science. Explore both jobs requiring advanced degrees and those that require only technical training or apprenticeships.
3. Emphasize the importance of taking as much science and math as possible in high school in order to maintain maximum career options.
4. Invite them to continue their relationship with you by writing to you about their thoughts on the activity and related ideas.
5. Plan a field trip for them to visit your workplace to see scientists in action.