PLANNING YOUR PRESENTATION

KNOWING YOUR AUDIENCE

Understanding your audience is the key to a successful conncection with the students. Make sure you talk to the teacher well in advance and understand what he/she expects and agree on your topic. You should know the answers to the following questions:

- What does the teacher expect to accomplish with your visit?
- Are the students on a science and math fast track?
- How much science/math have they had?
- What topics are they studying now? Are the students studying a particular theme?
- Are the majority of the students native english speaking?
- Are there likely to be a lot of questions?
- Have other professionals already made presentations, or are scheduled to in the future?
- Have the students had any exposure to engineering? Chemical engineering?
- If you are planning on giving out a momento, make sure it is appropriate

LOGISTICS

Nothing is worse than being caught unprepared. Find out the following:

- Where will you be giving the presentation / project?
- How much time is alloted for your presentation / project?
- What facilities are available (projector, VCR, computer, paper, flip chart, markers, pointers,…)?
- Availability of specific materials needed for project
- How many students will be present?

THE PRESENTATION

Normally, the presentation or class project should include most of the following:

- an “ice breaker” to get the students involved
- an introduction - who are you, what do engineers do, what do chemical engineers do, what do you do at work, why did you become an engineer, is it a good job? This must be tailored to the age and interest level of your audience.
- videotape
- the presentation or hands-on project
- hand-outs on chemical engineering or your specific topic (if appropriate)
- stuff to show the students - instruments you use, etc.
- be friendly, relaxed, enthusiastic
- break the talk into segments; don't do the same thing for more than about 15 minutes
- questions and answers
- conclusion

CHEMICAL ENGINEERING

Ask the students what they think chemical engineers do. Write their answers on the board/chart. If they have trouble starting, write down what you do. Ask them to list what chemicals they can think of. Talk about how chemical engineers help make those chemicals. Some topics you might discuss:

- chemical engineers like to solve puzzles (problem solvers). The pieces of the puzzle include resources available (money, people, raw materials, equipment size), data (properties and costs of the materials, current operating conditions, product specifications) and the desired goals (design the most efficient process, figure out why the product is not coming out they way its supposed to). The tools are knowledge of the laws of nature (material flow, heating/cooling, chemical reactions), reference materials (reference books, design manuals, data bases), calculation tools (computer programs) and other people.
- chemical engineers do many different types of jobs - research, design, manufacturing, environmental, teachers…
- engineers almost never work by themselves. Engineers must work with other engineers, scientists, salesmen, customers, government officials, plant operators, … It takes teams of specialists to get the job done. Communication is important in every engineering job
- chemical engineers are usually involved in scaling up a process that was developed in the laboratory in test tubes, and make it efficiently and safely on a very large scale.
- talk about what you like about engineering