

## **PLANNING YOUR PRESENTATION**

### 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