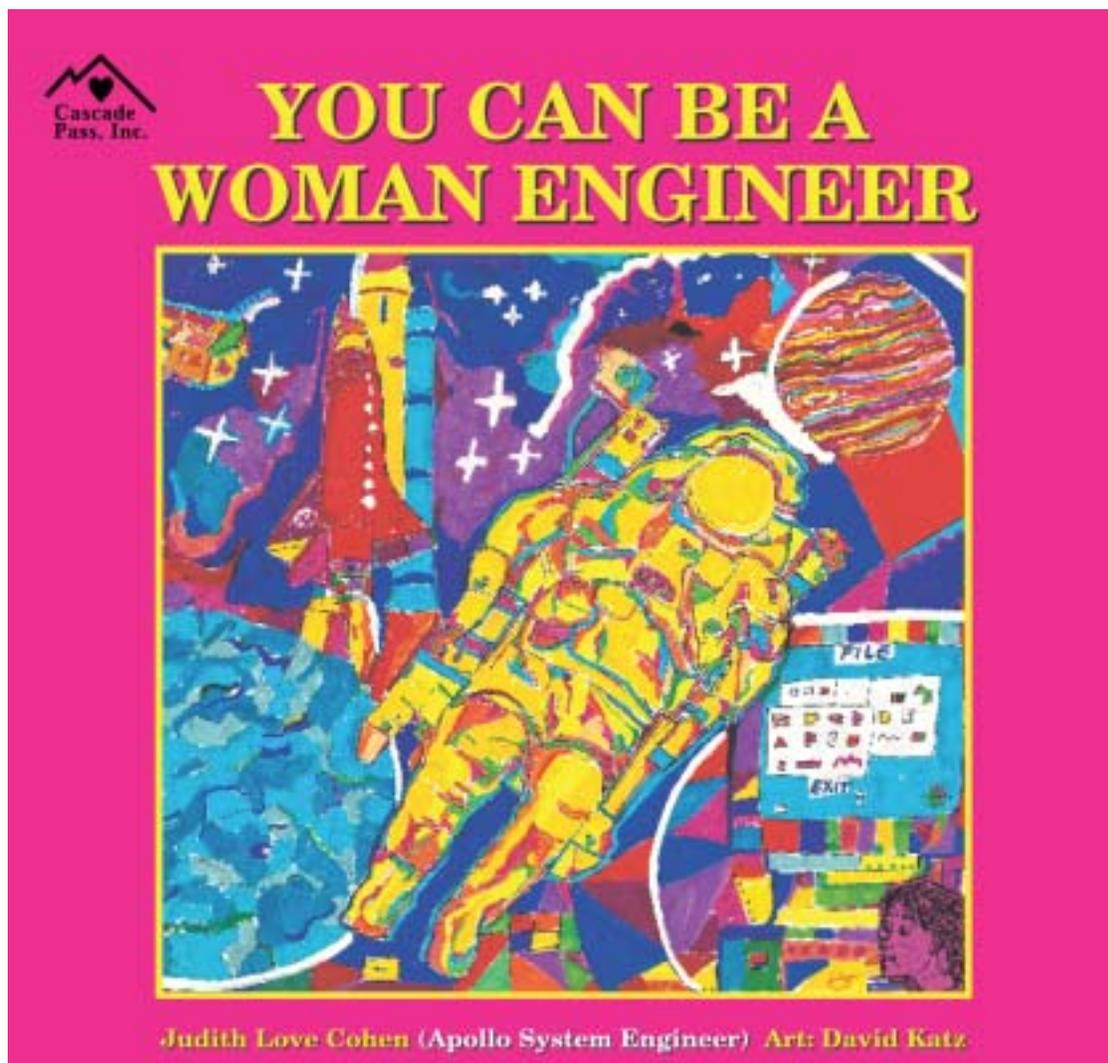




## YOU CAN BE A WOMAN™ ENGINEER



## YOU CAN BE A WOMAN ENGINEER



### SCIENCE ACTIVITY LESSON PLAN 1

- PURPOSE:** To give an awareness of what spatial relationships and three-dimensional design involve.
- MATERIALS:** Drawing materials (crayons, colored pens, paper), variety of objects: a roller skate, a hammer, a globe on a stand. . .
- PROCEDURES:** Have children inspect each object from different points of view: front, right side, top, bottom.  
Have them draw diagrams of objects from different points of view.  
Have the children imagine objects of their own and have them draw different views.  
Have the other children guess the objects from a single view, then two views, etc.
- CONCLUSIONS:** Do objects look the same from all viewpoints? (Globes do, cubes do, but hammers don't.)  
If you have one view of an object, do you know what the object will look like? (Not really: imagine an ice cream cone from the bottom?)

### SCIENCE ACTIVITY LESSON PLAN 2

- PURPOSE:** To create an awareness of what a telescope is and how it works.
- MATERIALS:** A sheet of paper, scissors, scotch tape, a drinking glass and a penny.
- PROCEDURES:** Cut a piece of paper and roll it into a cylindrical tube.  
Fasten with scotch tape. Design your own telescope. Make it any size or color available. Put water into a drinking glass; place the penny on the other side of the glass.  
Now look into your telescope and through the glass. See the penny.
- CONCLUSIONS:** How big is the penny?  
Draw the size. How much bigger does the penny appear when seen through the telescope?  
What makes the penny look bigger?

### SCIENCE ACTIVITY PLAN 3

- PURPOSE:** To create an awareness of what the parts of a computer are and how they function.
- MATERIALS:** A large picture of a typical personal computer, a large sheet of paper, marker pens, a chair, and a notebook.

**PROCEDURES:** Have one student sit in the chair and write in the notebook, copying a list from the blackboard.  
Have the picture of the personal computer posted next to the person.  
Have the students (or groups of them) take marker pens and write down on the large sheet of paper the body parts of the student that are involved in copying the list from the blackboard into the notebook, and then write down the similar parts of the computer that would do those functions (e. g., the student's hand is writing in the notebook; the computer printer would perform that function).

**CONCLUSIONS:** What processes do people use to gather, process, and store information? (Read words with their eyes, hear words with their ears, remember the words with their brain, spell them correctly with their memory, write words in their notebook, etc.)  
How does a computer function to do the same activity? (Accept input from keyboards and modems, process information in a processor unit, provide output through displays, printers, etc.)  
How are numbers or pictures treated differently from words?  
By the person and by the computer?

