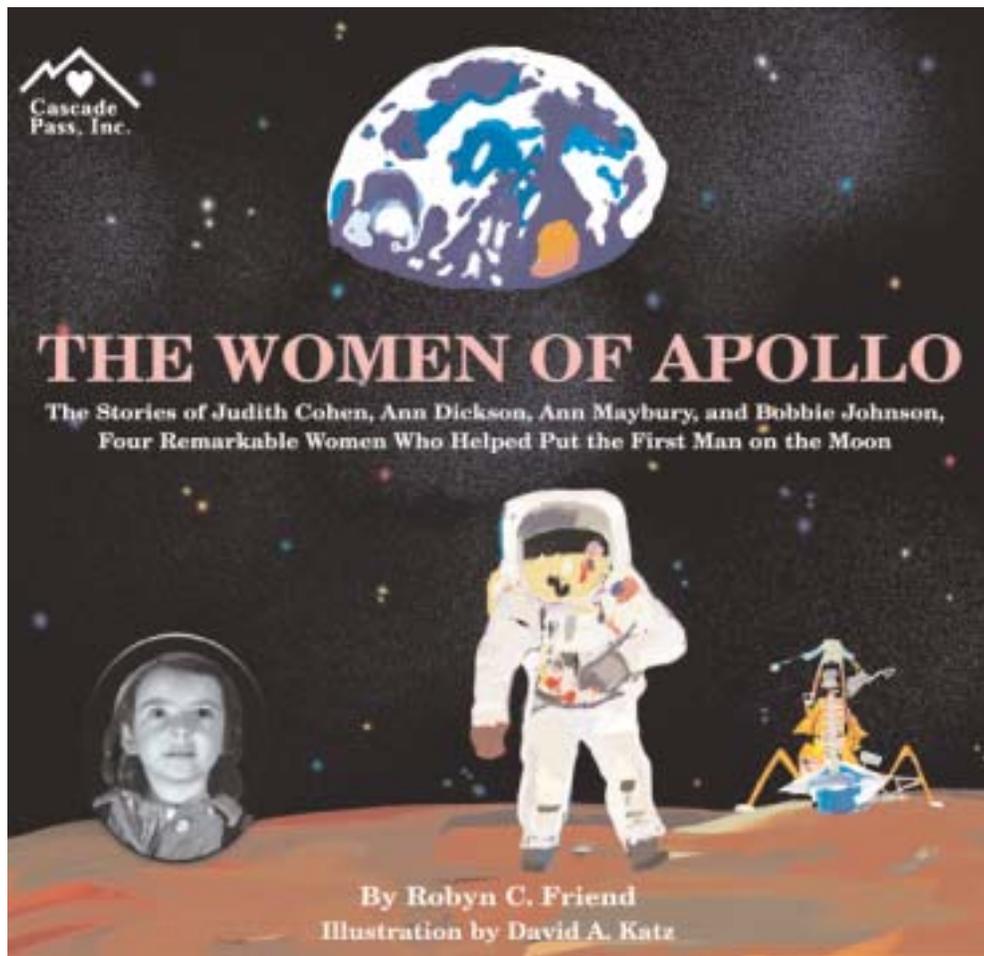


## THE WOMEN OF APOLLO

**The Stories of Judith Cohen, Ann Dickson, Ann Maybury,  
and Bobbie Johnson, Four Remarkable Women Who  
Helped Put the First Man on the Moon**





## THE WOMEN OF APOLLO

### MAKEUP LESSON PLAN 1: Gravity and Orbit Simulation

- PURPOSE:** To understand the forces that act on a moving body.
- MATERIALS:** Long heavy-weight string or twine, small heavy objects to tie onto the end of the string.
- PROCEDURES:** Bring the children to an open area where there is room for a lot of space between the children. Tie the small object firmly to the end of the string so that it won't fly off.  
Each child, or perhaps one child with a group standing far enough away not to be hit by the string or object, twirls the string so that the object "orbits" the child's hand.
- CONCLUSIONS:** The string acts like gravity to prevent the object from flying off into space. The child gives the power, simulating a jet engine, to keep the object "in orbit" around the hand. As long as the power given by the child remains constant, the object stays at the same distance from the child's hand.

### LESSON PLAN 2

- PURPOSE:** To understand some of the problems facing human beings traveling in space.
- MATERIALS:** Pencil and paper.
- PROCEDURE:** Have the children write down all they think they would need to take on a trip to another state, and then discuss.  
Then ask them to think about what they would need to take with them into space where there is no breathable air, no water, no restaurants, or hotels, and not much space inside the spacecraft. Then discuss.
- CONCLUSIONS:** What would be most important to take on a trip in space?  
What needs to be left behind because of space limitations inside the spacecraft? What are the dangers in space?



## LESSON PLAN 3: Apollo 13 Movie

See how the astronauts in space and the engineers on the Earth worked to solve the problem of bringing them back home safely.

**PURPOSE:** To understand how engineering and ingenuity can solve problems.

**MATERIALS:** Rent the movie, *Apollo 13*.

**PROCEDURE:** Show the film to the children. Have a discussion afterwards about what was done to save the astronauts' lives.

**CONCLUSIONS:** What were some of the unusual things that engineers on Earth used to make the Apollo 13 spacecraft able to bring the astronauts safely home? What are some of the unusual ways you use objects in your life to make your life easier or safer?

