

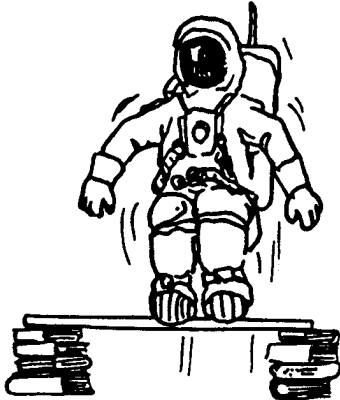
PHYSICS OF FUN

YOUNG  **ASTRONAUT™**
PROGRAM

BECOMING A LUNAR SUPERKID

United States of America

The Moon has a weaker gravity pull on its surface than the Earth does. In this adventure, you will discover what happens to your Earth-trained muscles on the Moon!



How high can you jump on Earth?

Place a meter stick between two stacks of books. Stand on one side of the meter stick and try to jump over it. (Do not take a running leap, just a simple jump.)

If you cleared the meter stick, raise it by adding more books. If you touched it as you jumped over, lower it by taking away books.

Measure the height of the meter stick when you can just clear it:

On the Moon, you could jump over a meter stick that is six times as high. How high could you jump on the Moon? Why?

Raise the meter stick to this height and imagine how it would feel to be able to jump that high!

How many books can you lift?

Sit in a chair with your back against the back of the chair and your hands in your lap. Ask a friend to place three textbooks in your hands. Try to lift these books about 20 centimeters. If you can lift them, add more books. What is the greatest number of books that your hands can lift?

On the Moon you could lift six times as many books. How many books could you lift on the Moon? Why?

Pile that many books together. Imagine how strong you would feel if you could lift that many books with just your hands!

If real super-people came to Earth from another planet, how could you explain their strength?

