THE BALL THAT ROLLS UPHILL

You need:
2 new wooden pencils
A deck of cards
A Ping-Pong ball
A book

What To Do
1. Divide the deck in half, placing the halves side by side. Place the pencils on the half-decks, with eraser ends touching and other ends on the table about 1 1/4 inches (3.12cm) apart.
2. Put the Ping-Pong ball at the center of the V to show how it will roll downhill and off the pencils onto the table.
3. Move the half-decks so they also are 1 1/4 inches (3.12cm) apart, as shown in Figure 2. Rearrange the pencils so their eraser ends touch the table, and their other ends are 1 1/4 inches (3.12cm) apart, each resting on the inside edge of a half-deck.
4. Put a weight (the edge of a book will do) on the eraser ends to hold them firmly in place.
5. Put the ball in the middle of the pencils as shown. Which way will it roll?

Why does it work?
Do you think that the ball, as before, will roll toward the pencils' lower ends? Surprisingly, it doesn’t! It seems to roll uphill toward the pencils’ higher ends! Actually, the ball's center of gravity lowers as it moves toward the open end of the V so it is really rolling downhill.