The Incredible Balancing Hammer

Anyone can stand a hammer on its head and it will balance. But can you tie a hammer to a ruler and balance them both on the edge of a table with only one end of the ruler touching the table?

**What to do:** Tie one end of the string around the ruler. Tie the other end of the string around the hammer handle. Tie it tightly so it won't slip up and down the handle.

**What happens:** Now to make things balance. Be sure the end of the hammer handle touches the end of the ruler. Position the ruler so that about 4 inches (10 cm) of it are on top of the table. Carefully test the ruler and hammer to see if they are in balance. You may have to adjust the string to get the hammer to hang correctly. If you have problems getting things to balance, shorten the string between the hammer and the ruler. Don't give up if things don't balance at first. They will when you adjust the string to the perfect length.

**Why:** You positioned the hammer and ruler so that the center of gravity is right at the edge of the table. If you look at things from one side, you'll see that the head of the hammer is on one side of the center of gravity and the handle and most of the ruler are on the other. A hammer with a wooden handle will have a different center of gravity than one with a steel handle because of the heavier weight of the metal handle.