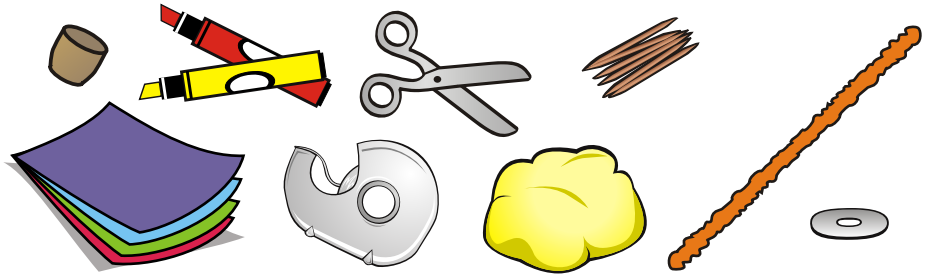




# Balancing Act

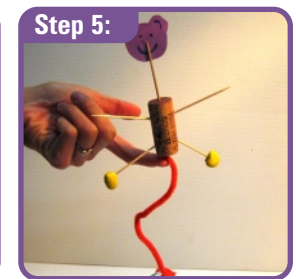
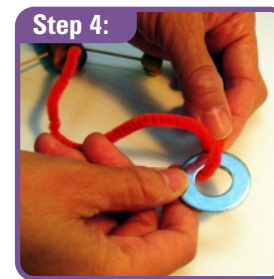
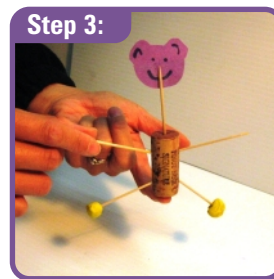
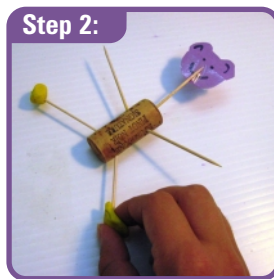
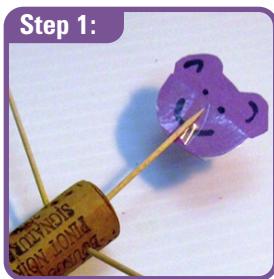
## What you need:

- Bottle cork
- Construction paper
- Markers
- Scissors
- Tape
- Modeling clay
- 5 toothpicks
- Pipecleaner
- Steel washer



## What you do:

- Step 1:** Draw and cut out an animal head from the construction paper. Tape the head to a toothpick and stick it into the top of the cork.
- Step 2:** Stick the other four toothpicks into the cork to make arms and legs. Wrap the ends of the bottom two toothpicks with modeling clay to make feet.
- Step 3:** Try to balance your animal on your finger. Poke your animal. Does it stay balanced?
- Step 4:** Wrap one end of the pipe cleaner around the washer. Attach the other end to the cork to make a tail for your animal.
- Step 5:** Try to balance your animal on your finger. Poke your animal. Does it stay balanced?



## What's going on:

You've found the center of gravity! The center of gravity is the point at which an object balances. Your animal balances when its center of gravity is below its pivot or support point. The washer lowers the center of gravity and allows your animal to balance. Your animal should rock but not tip over if you poke it. Many tightrope walkers carry a sagging bar or pole to help lower the center of gravity as they balance on the narrow rope.

## Now try this:

Would your animal balance easier if its tail was heavier? Add another washer to find out!

