



TAKE AND MAKE: Balancing Buddy

Check out other ideas at: <https://ppld.org/kids/create/whats-new>

The video instructions are available at: tinyurl.com/PPLDVirtualSTEM

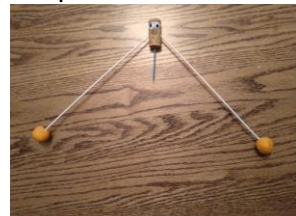
Materials included: Cork, two 12 inch bamboo skewers, toothpick, modeling clay, googly eyes

Materials needed: glue, paint or markers (optional)

1. Push the pointy end of a skewer into one side of the cork at a 45 degree angle; repeat on the other side just opposite the first skewer.
2. Push the toothpick in the center of the bottom of the cork. (*The skewers should be pointing down.)*
3. Roll two equal-sized balls of clay and press them onto the bottom ends of the skewers.



4. Glue the two googly eyes on the cork. You'll need to allow time for glue to dry. If you want, you can use paint or a marker to add more details to the face.



5. Place the tip of the toothpick on your finger and see if it balances. If it leans too much to one side, adjust the angle of the skewers one at a time until the cork stands upright when balanced on the tip of your finger.

Now, have some fun! See if you can gently spin your Balancing Buddy on the tip of your finger. Try walking around the house while keeping the Balancing Buddy in place. Can you balance Balancing Buddy on your elbow? Your knee? What other experiments can you do with your Balancing Buddy?

The science behind the project:

Everything has a center of gravity, which is the point at which its mass is evenly distributed. The clay balls are heavier than the cork, so they bring the center of gravity to the bottom of the toothpick.

That's why the bottom of the toothpick will balance on your fingertip!

