Spear a Potato II
http://www.stevespanglerscience.com/experiment/00000170

Materials
• 2 or more stiff plastic straws
• Raw potato
• Paper towels

1. The challenge is quite simple: Stab the straw through the potato without bending or breaking the straw. Most of your guests will think it can't be done but you, of course, know better.

2. As you hold the potato, keep your fingers on the front and thumb on the back and not on the top and bottom. You don't want to stab yourself! Grab the straw with your writing hand and (shh! this is the secret) cap the top end with your thumb.

3. Hold on firmly to both the straw and the potato and with a quick, sharp stab, drive the straw into and partway out of the narrow end of the spud (not the fatter middle part). You're so cool!

4. Your audience will be impressed and want to try it. Tell them to hold the spud the way you did so they don't stab a finger or thumb with the straw. They may not know the secret, but don't give it away just yet. Let them try to figure it out. You may need more stiff straws.

You know exactly where to go next. Open the refrigerator and search for your favorite fruits and vegetables that seem best suited for a straw attack.

How does it work?
The secret is inside the straw - it's air! Placing your thumb over the end of the straw traps the air inside. When you trap the air inside the straw, the air molecules compress and give the straw strength, which in turn keeps the sides from bending as you jam the straw through the potato. The trapped, compressed air makes the straw strong enough to cut through the skin, pass through the potato, and exit out the other side. Without your thumb covering the hole, the air is simply pushed out of the straw and the straw crumples and breaks as it hits the hard potato surface.

Be sure to keep your fingers out of the way. After you stab with the straw, take a look at the end that passed through the potato. There's a plug-o'-spud inside the straw. If you should have a finger or thumb or hand in the way of the straw as it collides with the potato, then there will be a plug-o'-you in the straw, too. Ouch!