Thread the Needle
Using two eyes gives you depth perception.
Closing one eye eliminates one of the clues that your brain uses to judge depth. Trying to perform a simple task with one eye closed demonstrates how much you rely on your depth perception.

**materials**
- A dowel or pencil
- A washer with a hole that's a little larger than the dowel's diameter.
- A lump of modeling clay about the size of your thumb.

**assembly**
(5 minutes or less)

Stand the washer on its side, using the lump of clay to support it so that the edge of the washer - not the hole - is facing you.

**to do and notice**
(5 minutes or more)

Stand far enough from the washer so that you must extend your arm to reach it. Now close one eye and try to put the dowel through the hole in the washer.

Open both eyes and try again.

**what's going on?**
One of the clues that your brain uses to judge distance and depth is the very slight difference between what your left eye sees and what your right eye sees. Your brain combines these two views to make a three-dimensional picture of the world.

Try this experiment again with one eye closed. But this time, move your head from side to side as you "thread the needle." People who have lost an eye can learn to perceive depth by comparing the different views they obtain from one eye at two separate times.

**Etcetera**

Stretch a string from just under your nose to the end of your outstretched arm. You will see two strings stretching out in front of you. Look at the string with just your left eye, and then with just your right eye. Notice that the two strings are separate images - one from each eye. The two strings cross at the point on which your eyes are focused. Try looking at different points on the string and notice how the crossover point moves.