

## Mexican Jumping Bean

On SCOPE's Things that...Jump episode, Julia made a Mexican jumping bean! Here's how you can do it at home:



### What you need:

Aluminium foil

Scissors

Thick pen (or something with similar thickness e.g. a piece of dowel, the end of a broom)

Marble

Large plastic container with a lid (e.g. lunch box)

### What to do:

1. Cut a piece of aluminium foil about 7cm x 7cm.
2. Wrap the foil around the end of the thick pen to form a tube, so about 2cm is hanging off the end.
3. Fold over the foil hanging over the end of the pen, to enclose the end of the tube.
4. Slide the foil off the end of the pen. You should now have something that looks a bit like a mini al foil test tube!
5. Drop the marble into the foil.
6. Carefully seal off the other end of the foil so the marble is trapped inside but can still roll around.
7. Place the aluminium foil bean inside the large plastic container, seal with a lid and then shake it around for a couple of minutes. The force of the marble hitting the foil, as the foil hits the sides of the container creates a nice, smooth bean with rounded edges.
8. Tilt the lunch box from side to side. Watch as your bean starts jumping around!

### What's happening?

The 'bean' looks like it has come to life thanks to momentum and the fact we can't see what's going on inside. As you tilt the lunch box back and forth, the marble inside the foil rolls around. When the marble hits one end, the foil flips over and the marble continues to roll around. This pattern continues as you keep tilting the lunch box and giving the marble a hill to roll down.

But why exactly is it called a Mexican Jumping Bean? Well there is a moth in Mexico that lays eggs inside a type of seed capsule. When the eggs hatch, the larvae move around and it looks like the seed comes to life – just like the aluminium foil!



