


## Let's sprout some pinto beans.

### Materials to make a sprout viewer:

- One 6-7 inch tall "wide mouth" jar (plastic or glass)
- Paper towels
- 3-4 Pinto bean seeds; best without cracks or chips (kidney beans are OK, lima beans are not)
- Water
- Spray bottle (optional but helpful) 




### Directions:

1. In a small bowl, cover beans with water and soak them overnight.  
 1A. *In the morning, if you do not have a spray bottle, wet 4-5 paper towels, wring them out (nearly dry), open them up loosely and then fill the jar 1/2 to 2/3 the way up with them. Go to step 4.*
  2. In the morning, fill the jar about 1/2 to 2/3 with crumpled paper towels.
  3. Spray water onto the paper towels until all look damp. (There should be no standing water.)
  4. Slip each seed between the jar and the paper towel so you can watch them grow.
  5. Put your viewer in a warm room near a bright sunny window or bright light.
  6. Spray or drip water on the paper towels daily. Be patient!
  7. Watch the seeds progress every day. If you feel like it, draw the seeds as they change.
- NOTE: Beans sprouted this way won't grow well outside. If you want to plant them in soil, do so indoors.



### ← Sprout Viewer #2 materials

- Zip-top sandwich bag
- Paper towel
- Pinto beans
- Tape; (scrap paper optional) 

### Directions

1. Soak the seeds overnight.
2. Place a folded, damp paper towel and a few beans in a zip-top sandwich bag; seal it.
3. Tape the bag to a vertical surface in a warm room and watch them grow!
4. Optional—Do an experiment to see if darkness speeds sprouting. Cover the seeds of one bag with paper, and make the other as described above. Which will sprout first?



**Could you tell which one was a root, a shoot (stem)? How? What direction did they grow?  
 Could gravity be part of the reason? Look up Gravitropism.**