

# Self-Watering Planter

## Collect

- 1 clean 2-liter bottle with lid
- Scissors or utility knife
- 1 foot of thick cotton yarn or string
- Potting soil
- Seeds



## Build the planter

1. Use the scissors or knife to cut the bottle in half, making sure to clean up any rough edges.
2. Remove the lid from the bottle and make a small hole in the center using the scissors or knife. Place the lid back on the bottle.  
*Hint: If you're having trouble making a hole in the cap, place a screwdriver or nail against the cap and then gently tap it with a hammer to get a hole started.*
3. Tie a big knot about 1/3 of the way down the yarn.
4. Thread the yarn through the hole so that the longer end is hanging out of the bottom of the lid.
5. Flip the top half of the bottle over and set it inside the bottom of the bottle so that the end with the lid is resting inside the bottom half of the bottle.

## Plant some seeds

6. Hold the longer length of yarn up and fill the upper part of your planter with potting soil so that the piece is surrounded by soil.
7. Sprinkle a handful of seeds on top of the dirt and gently pat them down. This planter works nicely with seeds for smaller plants like lettuce, but you can also use it as a "seed starting planter" for bigger veggies like tomatoes or peppers!

## Add water, watch, and wait!

8. The first time you water the seeds make sure to water from the top—this will ensure that the soil is nice and damp all the way through. Keep adding water until you start to see it start to fill the bottom container.
9. Move your planter to a sunny area and keep an eye on the water level. When the level in the bottom starts to run low, just add more water in the bottom. As long as the yarn is damp, it will continue to pull water up from the bottom so you won't have to water from the top.

## How does it work?

All plants need to be watered regularly, but a self-watering planter is great for people that travel or simply forget to water their plants every day. The key to this planter is cohesion and adhesion—two properties exhibited by water. Cohesion means that water likes to 'stick' to itself, while adhesion means that water likes to stick to other materials, like the cotton yarn. As long as the yarn is already damp, the water at the bottom of the bottle can easily travel up the yarn and into the soil. Just remember, if you know you won't be able to check the water for a few days, simply add more water to the reservoir at the bottom to keep the cohesion and adhesion flowing!