



ACADEMY SCIENCE CAMP

from home

Making a Biodome

A biodome is a container for growing plants that does not need watering. Can you make one? We'll show you how.

Know before you begin

- This activity can be done inside or outside
- All supplies are easy to find, substitute or leave out entirely
- Adult supervision is recommended
- Please choose a safe space to play

Materials

- 3 two-liter soda bottles
- 1 bottle cap
- Thick string
- Scissors
- Thumb tack
- Potting soil
- Something to plant
- Tape



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Instructions

1. Check with a grown-up before you begin. Cutting soda bottles can be tricky.
2. Start by removing the labels from 3 two-liter soda bottles.
3. First, cut the first bottle $\frac{1}{2}$ " above the top curve and then cut off the bottom of the same bottle $\frac{1}{2}$ " below the bottom curve.
4. Cut the top off the second bottle $\frac{1}{2}$ " below the top curve.
5. Cut the bottom off the third bottle $\frac{1}{2}$ " above the bottom curve.
6. Poke a hole in one cap with a thumb tack and enlarge it with scissors so you can get the string through. Attach the cap to the remaining top. Soak the cotton string in water and run it through the hole in the cap. The wick draws water into the soil.
7. Invert the capped top into the remaining bottom.
8. Slide the cylinder into it and add the short top as a cover.
9. Fill the bottom part with water until it touches the cap.
10. Add soil in the capped section but make sure that the string runs up into the soil and is not stuck along the sides.
11. Now you're ready to plant and watch things grow.
12. Poke a $\frac{1}{2}$ "-deep hole in the dirt and drop in a seed.
13. Cover the seed with some dirt.
14. Add a little water until the soil is moist.
15. Put the cap on and your biodome is all set. Everything your plant needs to live is in there! It's got nutrients in the soil, lots of air in the bottles and water that gets soaked up through the string. All you need to do is find a sunny spot to put this because plants need sunlight to make their own food!

