

# Aquaponics in a Bottle

## Materials

- 2+ liter clear bottle
- wooden skewers
- coffee filter
- soil or clay beads
- plant
- string
- aquarium gravel
- fish
- aquatic plant (optional)
- utility knife
- fish food

## Instructions

1. Remove cap and plastic ring. Rinse bottle with water.
2. Using utility knife, cut the bottle right beneath the curve on the top. Cut this piece all the way off.
  1. On top piece, make four holes with utility knife just below the cap. We will push our skewers through these holes.
  2. Push one skewer through the hole in one side and out through the hole on the other side. Repeat with second skewer in the other two holes. You should have an X through the top part of the bottle.
  3. Cut three pieces of string about 6 inches long. Tie together in a knot at one end and braid the strands together.
  4. Poke a small hole in the middle of the coffee filter. Push the knot through the hole and let the strands hang down. Now place the coffee filter in the top piece of the bottle, resting on the skewers. Pull the strings through the bottle cap. Now set this top section over an empty cup. Fill with soil or clay beads and add plant of choice.
  5. Fill the base of the bottle with well-rinsed aquarium gravel. Add properly dechlorinated water (set out for 24 hours or use treatment drops). Add aquatic plant.
  6. Add fish according to instructions for specific fish (allow them to acclimate to water temp). Be gentle.
  7. Carefully place top piece on the base, watch out for the fish with your strings.
  8. Feed your fish and clean the water in your aquaponics system regularly. Do not allow a film to grow. Make sure your top section does not hang too low into the fish section. Your fish needs surface area on the water and enough space to swim.
  9. Make sure to leave your bottle near sunlight or a grow light.

