

Simple Straw Aeration Hydroponic System

Overview: Kids are always amazed to see plants growing without soil. This simple kid-powered system gives them a chance to experiment and explore hydroponic basics.

Materials:

- rockwool* or cotton ball
- lettuce seeds
- plastic container with lid
- hydroponic nutrient solution*
- drinking straw

*Rockwool is made from molten rock that is spun into fibers and then compressed into mats or cubes. Both rockwool and hydroponic nutrient solutions are available from hydroponics suppliers and on Amazon.

Approximate Time to Complete:

- set up - 15 minutes
- grow time - 3 to 4 weeks

Location: Indoor

Ages: K- 5th Grade

Season: Any season

Instructions:

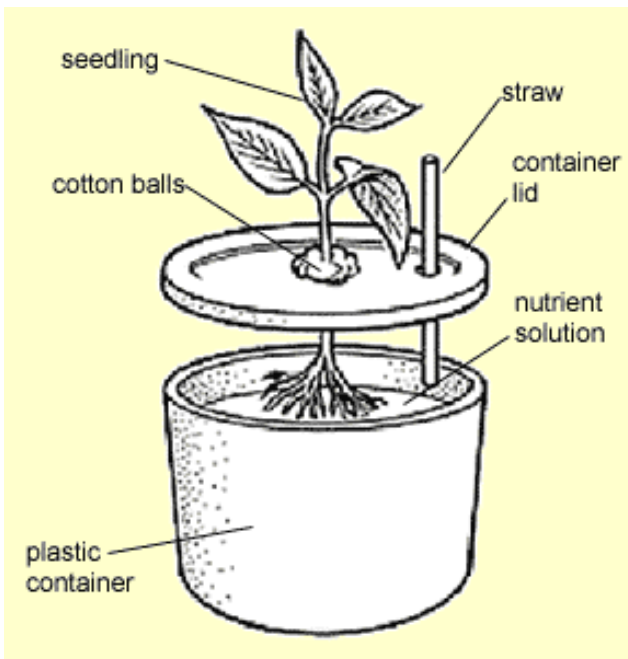
1. Soak small squares of rockwool or cotton balls in a dilute hydroponic nutrient solution. Plant two or three lettuce seeds in each one, and then place them on a waterproof tray or shallow container and keep moist until seeds germinate.
2. Find a small plastic container with a lid to repurpose, such as a margarine, cottage cheese or yogurt container.
3. Use a utility knife to carefully cut a 1-inch X shape in the center of the lid.
4. Cut a smaller X shape in the lid, about 1 inch from the edge, large enough to insert a drinking straw.
5. Gently insert the rockwool or cotton ball with the seedlings halfway through the large X so that it is held securely in place in the lid.
6. Fill the container with a dilute nutrient solution so that the very bottom of the cotton ball or rockwool square will touch the solution, then secure the lid.
7. Insert a drinking straw through the smaller hole into solution. Twice a day, gently aerate the solution by blowing into the straw.



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8. Change the nutrient solution every 1 to 2 weeks.



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