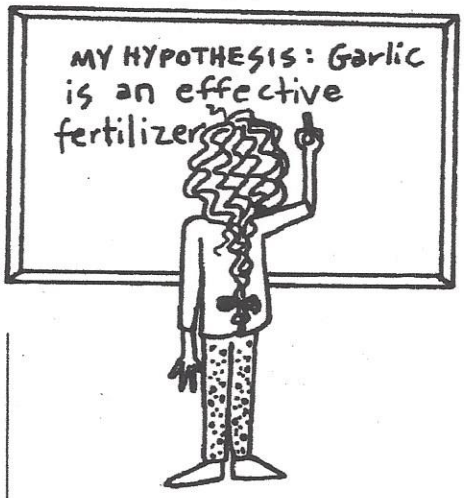
SCIENCE EXPLORATION MAP

What do you see?

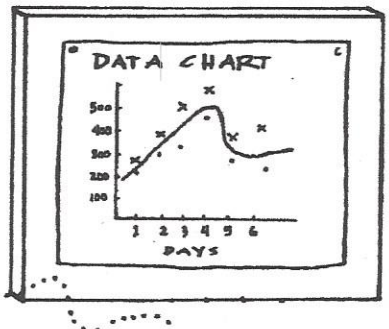
Talk to others about your experiment

Ask a Question

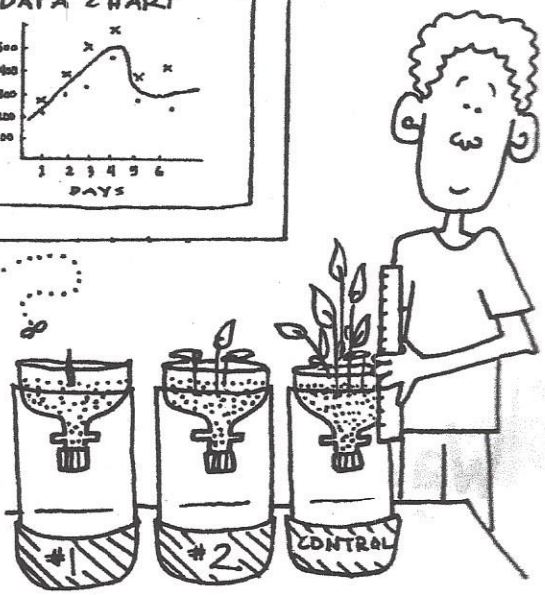
Suggest an answer



Design an experiment



Did you answer your question?



BUILD: TERRAQUA COLUMN

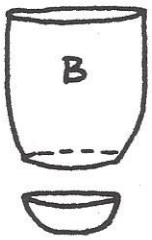
MATERIALS:

- two 2-liter bottles
- one bottle cap
- Bottle Biology Tool Kit (p. 2)
- wicking material — *fabric interfacing or cotton string*
- water, soil & plants

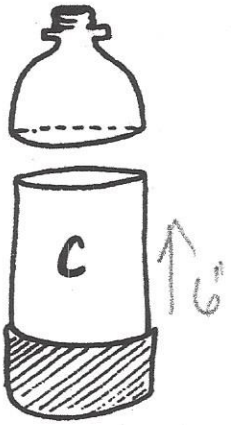
1. Remove labels from the two bottles. Remove base from one bottle, if they both have separable bases (see Bottle Basics p. 3).

2. Cut the bottle with no base, 6-7 cm below shoulder curve, leaving a straight end on cylinder B.

Cut off the bottom 1-2 cm below hip curve, leaving a tapered end on cylinder B.

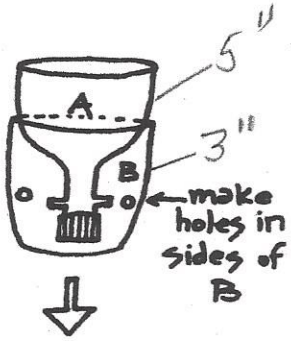


3. Cut top off second bottle 2 cm below shoulder, leaving a straight end on piece C.

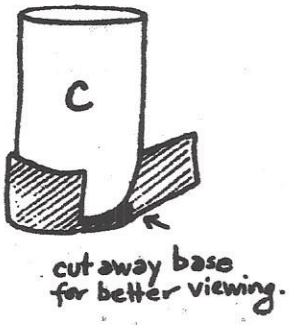


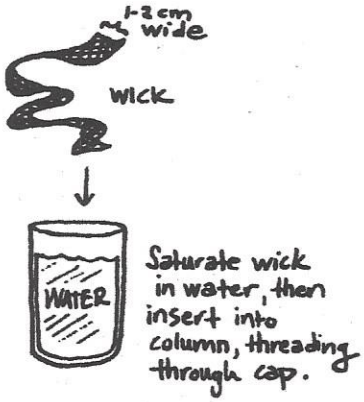
4. Punch or drill a hole in cap with an awl or drill. It is very important to enlarge the hole with a tapered reamer or drill bit to about 1 cm wide, enough to easily accommodate the wick. Attach cap to A.

5. Invert top A into cylinder B. Tape this joint for stability. Slide A/B unit into C.



6. For wick, cut a strip of fabric interfacing 1-2 cm wide and slightly shorter than the height of the column. Insert a wet wick as shown.





When adding soil, make sure the wick runs up into the soil and is not plastered along the sides of the column or protruding above the soil surface. After you fill the column you may want to tape B and C together.