

Growing Coral



Objective

Students will observe the growth of crystals developed in a way similar to how coral polyps create their calcium carbonate cups.

Materials

- plastic bowls (have students bring from home)
- pieces of charcoal, porous brick, tile, cement or sponge
- water
- table salt (iodized or plain)
- liquid bluing (found with bleaches at grocery stores)
- food coloring
- measuring tablespoons
- masking tape
- pens

Action

1. Ask students to label their bowl with pieces of masking tape with their names on them. Have them put some pieces of charcoal, brick, tile, sponge, or cement into their bowls.
2. Students should pour two tablespoons of water, two tablespoons of salt, and two tablespoons of liquid bluing over the base material (charcoal, etc.). Set bowls on a table or counter top. Formations need free air circulation to develop.
3. The next day have them add two more tablespoons of salt.
4. On the third day, pour in the bottom of the bowl (not directly on the base material) two tablespoons each of salt, water, and bluing, then add a few drops of food coloring to each piece of base material.
5. A crystal formation should appear by the third day. If not, it may be necessary to add two tablespoons of household ammonia to aid the growth. (Only teachers or other adults should handle and add the ammonia.) To keep your formation growing, just add more bluing, salt, and water from time to time.
6. Explain to students that just as the water, bluing, and dissolved salt combined to form crystals, coral polyps use dissolved calcium carbonate to create the stony cup that protects their soft bodies and creates reefs.