

ROCK CANDY

GRADE LEVEL: 1-12

SUBJECTS: Science, Math
(Measurement)

Related Colorado Content

Standards: SC1, SC2, SC4, MA(1-5).5 benchmark 5.4, MA (6-12).5 benchmark 5.6

TIME: 20 Minutes for the demonstration, then 10-20 minutes daily for the next 2 weeks

OBJECTIVE: Students will participate in an experiment, which will enable him/her to observe crystalline growth and structure.

MATERIALS:

- Sugar
- Water
- Cotton string
- Clear plastic cups or jars
- Spoons
- Popsicle sticks

BACKGROUND:

Rate of crystal growth is important in everything from altering candy textures to metal strengths. Slow cooling makes bigger crystals while fast cooling makes smaller crystals.

This is a concept that is used extensively in science and manufacturing.

PROCEDURE:

1. Fill container 2/3 full with very hot water.
2. Add sugar, a spoonful at a time, until no matter how much you stir, some sugar remains in the bottom of the cup. This is called a “saturated” solution.
3. Wet a piece of string and tie it around a stick, leaving enough hanging down to reach the bottom of the cup. Lay the stick across the top of the cup.
4. Mark the water level using a piece of tape and a marker. Mark the water level every other day. (It will take many days for the water to evaporate.)
5. Observe the sugar crystals. Compare them to table sugar.

