

## Instructions for Growing Salt Crystals

### Materials

**Safety Tip:** Do this activity only when an adult is present.

Water, 240 ml (1 cup)  
Granulated salt, 240 ml (1 cup)  
Measuring cup  
Small saucepan  
Wooden spoon  
Glass or jelly jar  
Cotton string, 20 cm (8 in)  
Pencil  
Stove (source of heat)  
Small weight (e.g., a metal nut, small washer, paper clip, or button)

### Instructions

1. Make sure that all your equipment is clean.
2. Place the water in the pan and put the pan on the stove. Turn the heat on medium.
3. When the water boils, turn off the heat.
4. Add a spoonful of salt right away. Stir. Keep adding salt and stirring. When some salt sits on the bottom of the pan even after you stir it, stop adding salt.
5. Let the salt water cool.
6. Pour the salt water into the glass.
7. Wet the string. Tie the weight to the end of the string.
8. Tie the other end of the string around the middle of the pencil. Adjust the length of the string so that when you place the pencil across the top of the glass, the weight will hang just above the bottom of the glass.
9. Lay the pencil across the top of the glass. Hang the string in the salt water.
10. Put the glass in a place where it will not be disturbed.
11. Let the glass stand for three to five days. Check it every day. Remove the crystals that form on the surface of the water so that the water can continue to evaporate. Watch what grows on the string!
12. Discuss your results with your adult partner.

## Reading Selections

### Quartz

Quartz can be one of the prettiest and most colorful of all minerals. Some types of quartz are made up of tiny crystals, but many types display large crystals. Quartz crystals can be clear, purple, brown, or yellow. They are always six-sided, or hexagonal.

Quartz crystals are valued for their beauty. They are often used in jewelry. Geodes are rocks that are lined with crystals. In many cases, these crystals are quartz. Some geodes are bigger than basketballs! Have you ever seen a geode on a desk or bookshelf?

Quartz crystals have many commercial uses. Crystals are used in watches and clocks. The quartz crystals in your wristwatch vibrate more than 30,000 times a second! Quartz crystals are also used in radios, computers, microwave ovens, and VCRs.

Which crystal do you think is quartz?



### Fluorite

Fluorite crystals are shaped like cubes. Sometimes the crystals are so tiny that you can't see them. Fluorite can be clear, yellow, purple, blue, or pale green.



Fluorite is a rather soft and brittle mineral. It is often used for industrial purposes. When fluorite is ground up, it is used as a chemical. This chemical has many uses. It is used in the manufacture of steel to help the melting process. And it even helps fight tooth decay! Fluorite is the source of fluoride, which is probably in your toothpaste.

Do you think you have a fluorite crystal in your set of minerals?