

Salt Crystal Suncatchers

Collect

- Clear plastic lids such as a yogurt, coffee, or chip lid
- Microwave
- Microwave safe bowl or cup
- Spoon
- Water
- Salt
- Oven mitts
- *Optional:* Food coloring
- Sewing needle
- Thread
- Scissors



Make a supersaturated solution

1. Fill a microwave safe bowl or cup with water.
2. Place the vessel into the microwave and heat the water to boiling.
3. Slip on the oven mitts and carefully remove the water from the microwave.
4. Stir in salt spoonful by spoonful until no more salt can dissolve in the water. *Optional:* Stir in a drop of food coloring to give the crystals color.

Pour and store

5. Seed the solution by sprinkling a dash of salt into the lid. This will encourage rapid crystal growth.
6. Pour the briny water into the plastic lids until the saltwater solution covers the entire bottom of the lid.
7. Place the lids somewhere they can rest undisturbed for up to 24 hours.
8. As the saltwater cools, crystals will form. As the water evaporates, the crystals will become more visible.

Create the suncatcher!

9. Wait until all of the water has evaporated, leaving nothing but salt crystals in the lid.
10. Thread a sewing needle and poke it through the plastic lid.
11. Snip the ends of the thread and tie them off in a secure knot.
12. Hold the lid up to the sunlight and observe the sparkling crystalline patterns.

The science:

In this experiment we created a supersaturated solution by adding sodium chloride (table salt) to water until it could no longer dissolve any more of the solid material. Warmer water is able to dissolve and hold more salt than colder water. As the water cools it becomes unstable. The salt atoms grab onto one another and reform into solid crystal structures. Seeding the solution with a few salt grains encourages rapid crystal growth because it gives the salt atoms a surface to latch onto and grow.