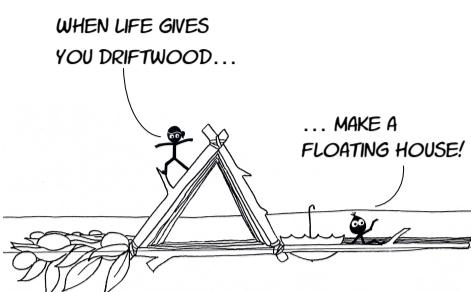


## SCIENCE MOM

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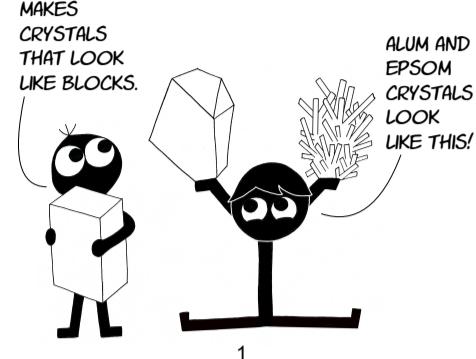
[www.youtube.com/ScienceMom](http://www.youtube.com/ScienceMom)

## SCIENCE MOM'S Guide to WATER, Part 6

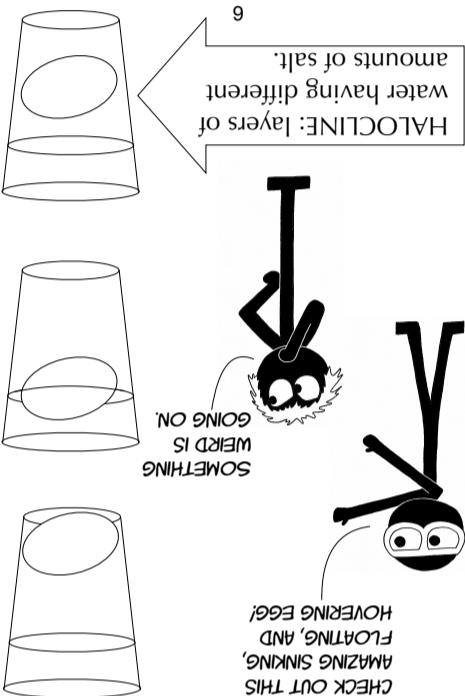


**When water freezes, it forms a crystal. But water's not the only thing that can make crystals.**

Most minerals and salts can form crystals, especially if they are in a solution with water and the water evaporates.

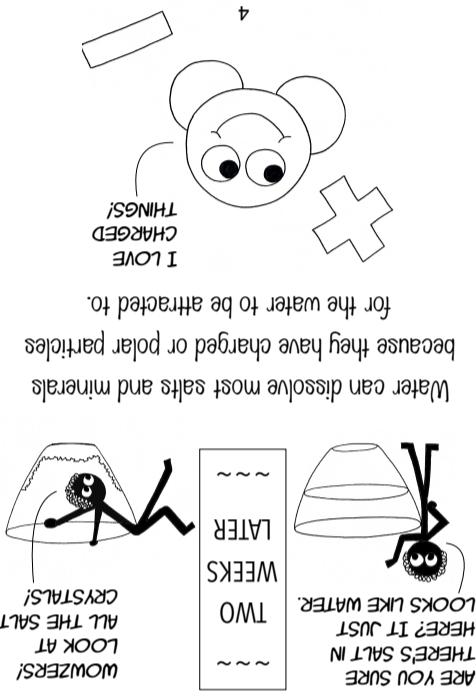


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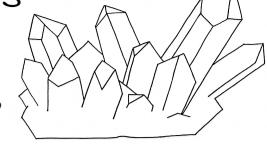


- Method:**
- Prepare salt water and let it cool to room temperature.
  - Fill 3 jars or cups. One with plain water, one with salt water, and one by carefully filling it half way with water, one with salt water, and then layering the tap water on top.
  - Place the eggs in the jars and observe if they sink or float.
  - Pour the water directly into the salt water side of the cup just above the spoon held by the stick figure.
  - Tip: Make sure the same temperature and then pour the water onto a spoon held by the stick figure.
- Materials:**
- Tap water
  - 3 jars or cups
  - Salt (non-iodized works best)
  - Jar or cup

### 2. Halocline plus Eggs



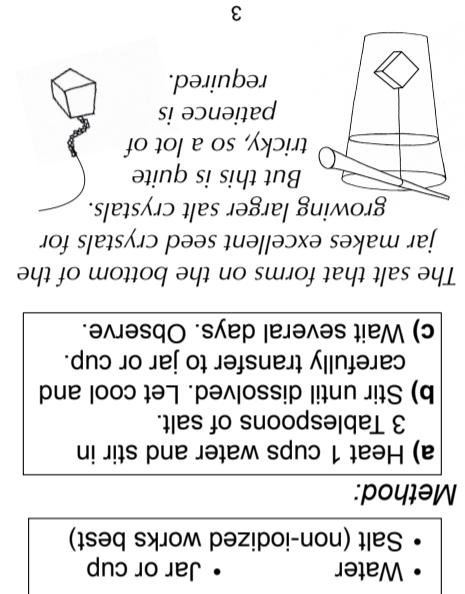
**WHAT IS THIS CRYSTAL MADE OF?**



Name Chemical Formula

Table Salt	Sodium Chloride (NaCl)
Alum	Hydrated potassium aluminum sulfate ( $KAl(SO_4)_2 \cdot 12H_2O$ )
Borax	Sodium tetraborate ( $Na_2B_4O_7 \cdot 10H_2O$ )
Sugar	Sucrose ( $C_{12}H_{22}O_{11}$ )
Epsom Salt	Magnesium sulfate ( $MgSO_4$ )
Quartz	Silicon dioxide ( $SiO_2$ )
Diamond	Carbon (C)

2



### 1. Reappearing Salt

## 3. Eggshell Geodes

### Materials:

- Water
- Alum
- Eggshell
- Jars or cups
- Food coloring
- White glue

### Method:

- Heat 2 2/3 cups of water and add 1/2 tsp food coloring and 1 1/3 cup of alum powder.
- Stir until dissolved, and then carefully transfer the solution to two heat proof jars. Hotter water makes larger the crystals. Cooler water makes smaller sized crystals.
- Optional: Seed the inside of the eggshell with glue and sprinkle alum powder over surface.
- Place eggshell in alum solution and let sit for 12-24 hours.

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## 4. Borax Snowflakes

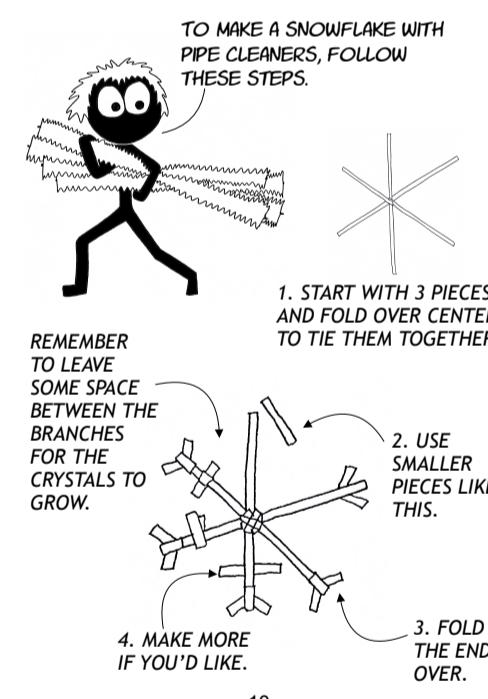
### Materials:

- Water
- String
- Jars or cups
- Pipe cleaner
- Borax powder
- Food coloring
- Pencil or piece of cardboard

### Method:

- Heat 4 cups of water and add 1 cup Borax. Stir well.
- Take three pipe cleaners and fold into a snowflake shape.
- Suspend the snowflake in the borax solution using the string and cardboard or pencil.
- Wait 12 to 24 hours and then remove from solution. To preserve the crystal, coat it with clear nail polish.

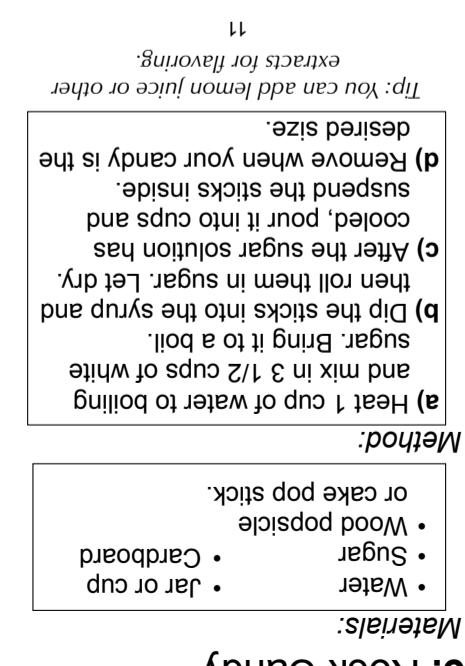
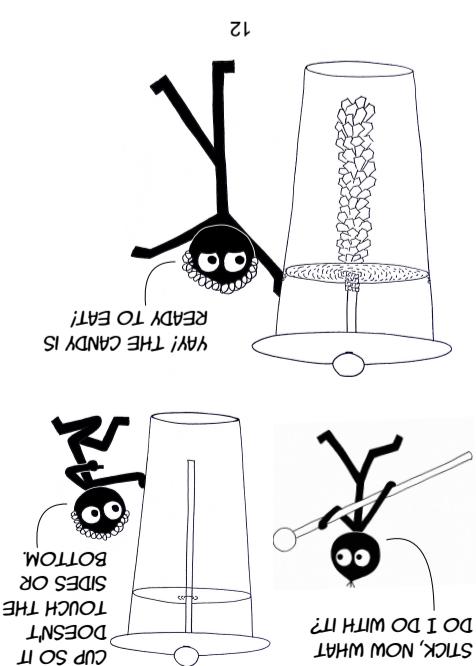
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- Method:**
- Mix the dry ingredients together in a bowl.
  - Mix the wet ingredients together using a fork or whisk.
  - Pack the mixture into the dry mixture using a spoon.
  - Carefully remove egg or ball.
- Materials:**
- 1/4 tsp essential oil
  - 1 tsp oil
  - 1/4 C cornstarch
  - 1/3 C epsom salt
  - Food coloring
  - Plastic oil
  - 1/2 C baking soda
  - Citric acid
  - Oil
  - Oil
  - Essential oil
  - Plastic oil
  - Food coloring
  - 1/4 C cornstarch
  - 1/3 C epsom salt
  - 1/2 C baking soda
  - Citric acid
  - Oil



11

B

A

A

X

B

C

C

D

F

E

E

D

E

G

G

X