

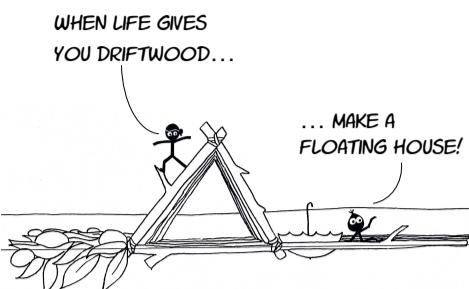
SCIENCE MOM

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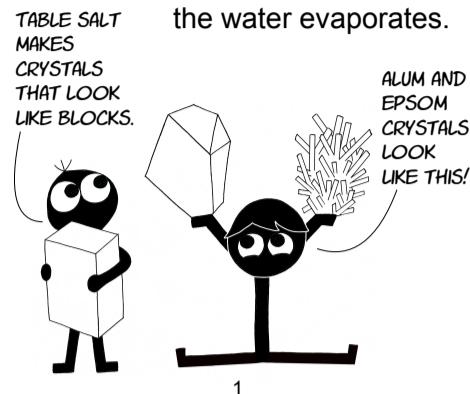
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SCIENCE MOM'S Guide to WATER, Part 6



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

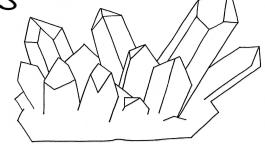
Most minerals and salts can form crystals, especially if they are in a solution with water and the water evaporates.



1

WHAT IS THIS

CRYSTAL

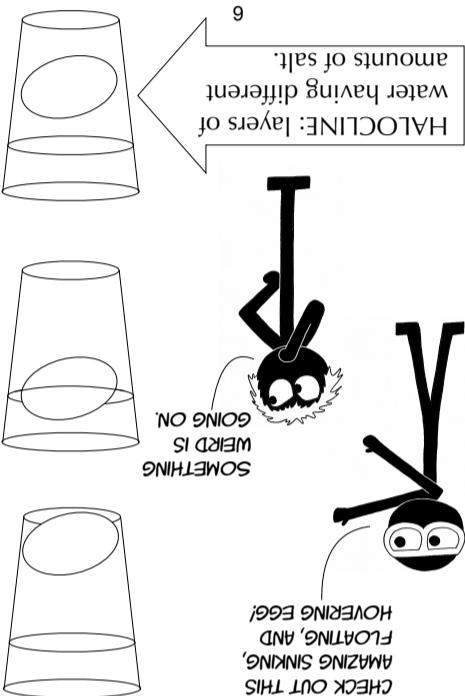


MADE OF?

Name Chemical Formula

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



3. Eggshell Geodes

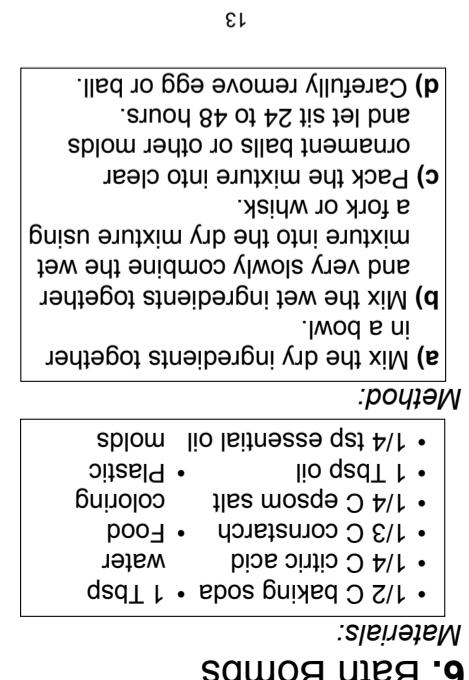
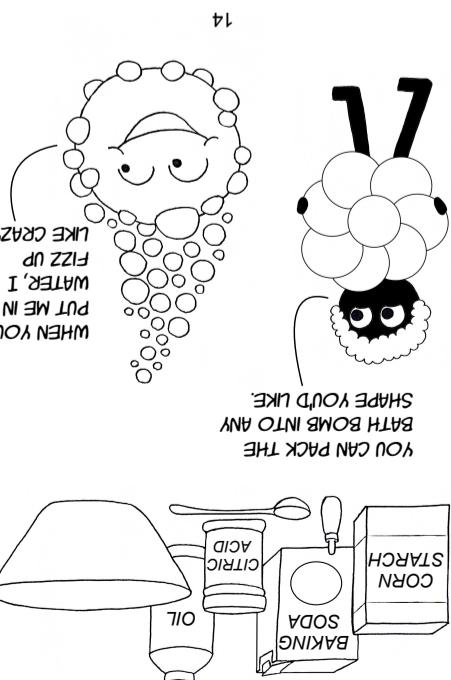
Materials:

- 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.

7



6. Bath Bombs

Materials:

- Water
- Sugar
- Wood popsicle
- Cardboard
- Cake pop stick
- Jar or cup

4. Borax Snowflakes

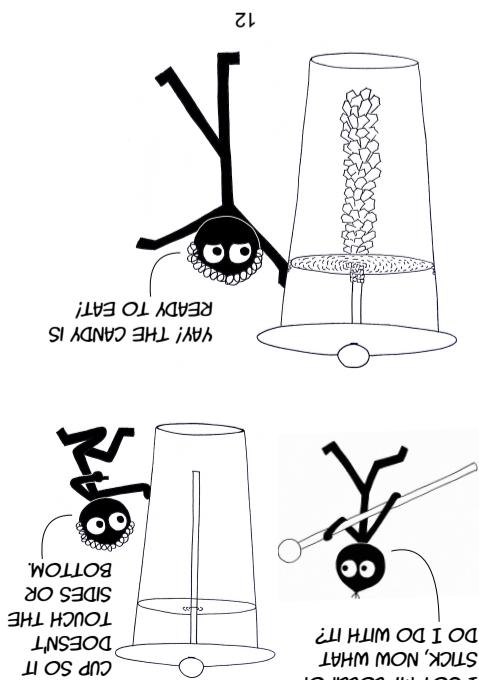
Materials:

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

Method:

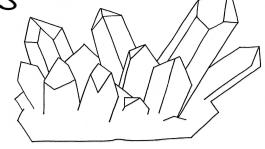
- Heat 4 cups of water and add 1 cup Borax. Stir well.
- Take three pipe cleaners and fold into a snowflake shape.
- Suspend the snowflake in the borax solution using the string and cardboard or pencil.
- Wait 12 to 24 hours and then remove from solution. To preserve the crystal, coat it with clear nail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

9



WHAT IS THIS

CRYSTAL

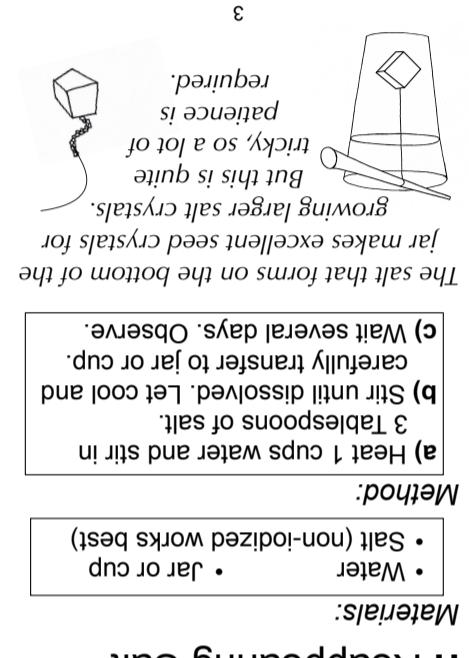


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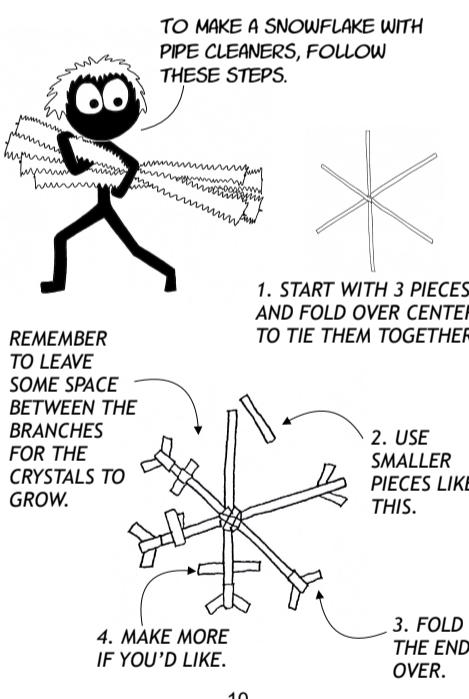
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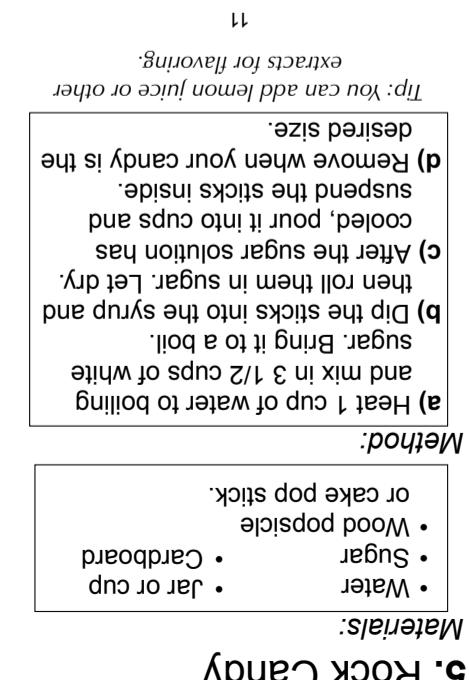
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3



10



11

5. Rock Candy

B

A

X

B

C

D

F

E

D

E

G

X