

ACTIVITY SHEET by Katelyn McKelley

Crystal Eggshell Geodes

Art Form: Visual Arts • **Other:** Science

DESCRIPTION:

This is a fun, hands-on science experiment that gives children the chance to explore how salt crystal geodes form using household ingredients and items.

RECOMMENDED AGE(S):

2nd to 6th grade

TIME TO COMPLETE:

The initial prepping of the eggshell, creating the salt mixture, and filling the shells with this mixture takes about 30 minutes (10 to 20 minutes longer if you decide to dye the eggshells before filling them with the salt solution). The crystals inside the shells start to form as water evaporates out of the mixture, and this can take several days to fully dry out.

MATERIALS NEEDED:

- ▶ 4 or 5 raw eggs
- ▶ Craft glue
- ▶ Epsom salt
- ▶ Food coloring
- ▶ Small containers (or use egg carton)
- ▶ Small paint brush
- ▶ Toothpicks
- ▶ 1 cup of water
- ▶ Small pot and stove



WHAT YOU DO:

1. Carefully crack the egg at the narrow end
2. Slowly widen the hole in the egg until it is just large enough to empty the contents of the egg into a bowl.
3. Rinse the eggshell out; gently rub your finger around the inside of the egg to remove the egg's membrane.
4. You can choose to dye the eggshells at this point if so desired (or you can leave them as they are) *To dye the shells: squeeze a few drops of food coloring into a small container of white vinegar. Let the eggshells sit for a few minutes; remove them from the dye and let them dry completely before moving on to next step. *
5. When the shells are dry, use a small paintbrush to coat the inside of the eggshells with a thin layer of craft glue.
6. Sprinkle some Epsom salts into the egg; rotate the egg to completely coat the inside of the shell (this will act as the base to help grow the crystals)
7. Place the eggs upright in a small container (the egg carton works best for storing the eggs). Allow the glue to dry completely.
8. When glue is dry, boil 1 cup of water.
9. Remove the water from the heat source and add in ½ cup of Epsom salts; stir until the salt is totally dissolved.
10. Keep stirring in tablespoons of Epsom salt one at a time until the mixture is quite thick, and the salt no longer dissolves.
11. Carefully fill each eggshell with the saturated salt mixture; add a drop or two of food coloring into each egg and gently stir with a toothpick.
12. Store the eggshells where they will not be disrupted for several days.
13. Check the eggshells daily and use a toothpick to break any thin, solid layers that may form on the surface (the water needs to be able to evaporate)
14. The water will fully evaporate after several days, creating your homemade crystal geodes in the eggshells.

HOW YOU CAN SHARE:

Take a picture of take a picture of your child's eggshell geodes and share them, be sure to tag **#artworksanywhere**.

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