

Easter – Crystal Easter Egg

Here's a chemistry activity in keeping with the Easter season. You can make a crystal geode, an egg decoration or a hanging ornament for an Easter Egg Tree.

Materials:

- Salt
- Borax
- Epsom salts
- Cup
- 1 cup of boiling hot water
- Food colouring
- An egg
- Alum
- Sugar

Procedure: (Remember to have your parent's permission and have them watch and help you.)

- Prepare the Egg:
 - Geode: Carefully crack the egg or cut it in half. Rinse off the shells and allow them to dry.
 - Hard Boiled: Results in a heavy egg that can be used as a tabletop decoration.
 - Ornament: Use a needle to pierce a hole into each end of the egg. Push the pin or an unbent paper clip into the egg and scramble the yolk. Blow into the hole on one end of the egg to remove the contents.
- Prepare the crystal solution:
 - There are many recipes for growing crystals (http://chemistry.about.com/od/crystalrecipes/Crystal_Recipes.htm). Good choices include alum (large crystals and quick results), sugar (sparkly), salt, Epsom salts or borax (sparkly).
 - Pour boiling water into the cup.
 - Keep adding the crystal material to the boiling water until it stops dissolving. Use this saturated solution to grow the crystals.
 - Add a few drops of food coloring.
 - Put the egg in the glass so that it is completely covered by liquid. (If you blew out the egg, you'll need to submerge it.)
- Allow a few hours or leave it overnight for crystal growth.
- Remove the egg, hang it or set it on a paper towel to dry.



What's Happening:

When molecules of the alum are in solution they are surrounded most of the time by water molecules. Occasionally the alum molecules bump into and stick to each other. Eventually enough stick together to that they can no longer stay dissolved in the water and they "drop out of the solution" (chemistry phrase meaning "crystals form"). Over time the crystal grows larger as other alum molecules attach themselves.

Extension:

If you want alum crystals all over the egg, dip the egg in alum powder or painting the shell with a mixture of alum and glue before putting it into the solution.

This chemistry activity is based on our Easter kit. The source for this lab was: <http://chemistry.about.com/od/crystalrecipes/a/Crystal-Easter-Egg-Project.htm>. Our teaching kits (described on our website) are loaned out FREE to provide classroom teachers and parents of home schooled children an opportunity to explore Science in interesting ways. Please consider volunteering as a classroom guest speaker or allow your business as a field trip location.



Praxis will be hosting Operation Thoth, a conference for grade nine boys, on April 19th.

<http://praxismedhat.com/services-operation-thoth/>.

Lorne Cooper, Regional Executive Director

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