TEACHERS NOTES

Crystal GeoEggs

Need:

2 Eggs Running warm water Papertowel 4 tablespoons Epsom Salt : Magnesium Sulfate 2/3 Cup Very warm water Stirring stick or spoon Food Colouring

How to:

On the top - narrow end - of the egg, carefully crack the top off Remove the yolk and white

Be gentle - Egg shells are very delicate

Carefully and gently run warm water over the eggshell to clean and peel the egg membrane from the shell

Place the shells upside down on a paper towel and let dry In the cup pour in some very warm water

Add in your Epsom salts and stir until dissolved (if you have problems dissolving it heat the water with Epsom Salts and it will dissolve easier) - This is your supersatuated solution Add in some food colouring

Pour even amounts into two fresh cups

Carefully place your egg shell and submerge in the solution Add a little extra water into the cup if needed to submerge Leave the cups of supersaturated solution with eggshells submerged undisturbed for 3-4 days

Pour off some of the solution and carefully lift out your geoegg which will now be covered in crystal's



What are crystals?



A crystal is a solid, hard, substance.

A crystal is made of molecules bonded together in specific patterns which form a shape that has straight edges and flat surfaces.

Nucleation sites

The site where a crystal begins to grow, called its nucleation site

The nucleation site determines the crystals size

Having fewer nucleation sites means you end up with larger crystals

Having more nucleation sites means you end up with smaller crystals

How GeoEggs Crystals form:

Chemists refer to the following as a crystal 'falling out of' the solution.

A few molecules of magnesium sulfate in the solution connected and joined which starts the crystal formation. Then more molecules kept joining them until enough gathered to form a visible crystalline solid.

If you leave crystals in the saturated solution, they'd continue to grow.

