

THE AMAZING CRYSTALLIZATION EXPERIMENT

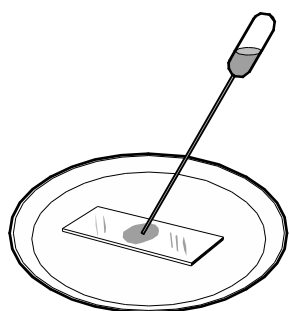
In nature it can take eons for crystals to form.

How would you like to watch them appear **right before your very eyes?**

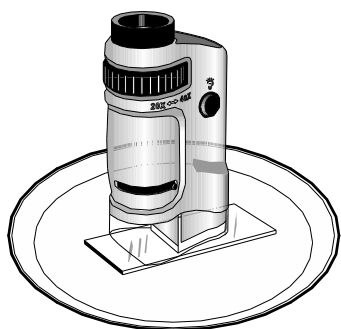
What You Need: microscope, vial of salicylic acid solution, pipette, colored plate, microscope slide.

CAUTION: Salicylic acid solution contains rubbing alcohol. Don't swallow it or get it in your eyes. If it gets on your skin or clothing, rinse it off.

What To Do: Set the slide on the colored plate, which will make a good background for your crystals. With the vial tightly capped, shake the solution for about 20 seconds. (Cap the vial when you're not using it so the alcohol doesn't evaporate.)

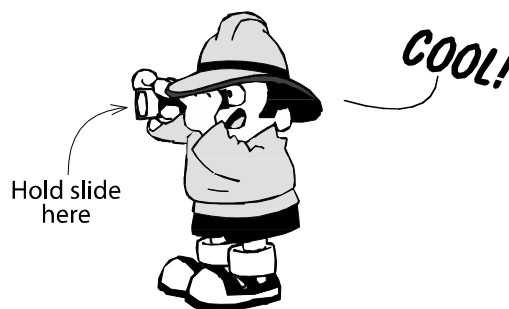


Using the pipette, drip a single tiny drop of solution onto the middle of the slide. It should spread out to about an inch wide, then start to dry from the outside edges. When you see it starting to dry, place the microscope where you can see some dry and some wet. From this point of view you can see an amazing thing: **the formation of crystals!**



When the drop is completely dried, you can repeat the experiment by putting another tiny drop right where you put the first drop.

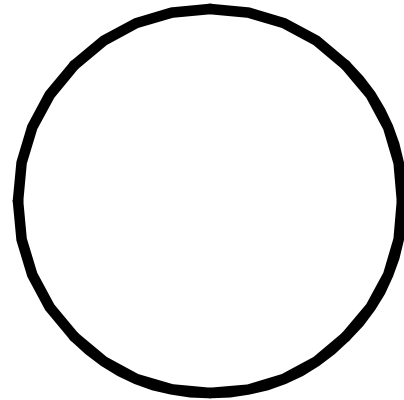
Once your crystals have formed, you can get a better view of them by using your microscope to look **through** the slide toward a light source behind it. Keep the microscope light on, too.



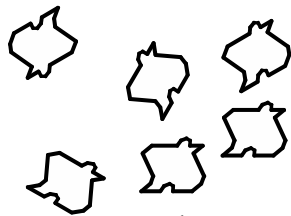
OBSERVATIONS ON THE AMAZING CRYSTALLIZATION EXPERIMENT:

Name some things that these crystals look like or remind you of.

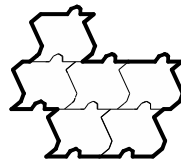
Sketch what the crystals look like through the microscope.



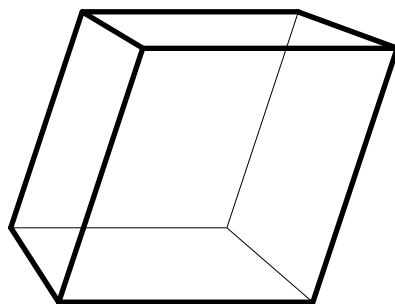
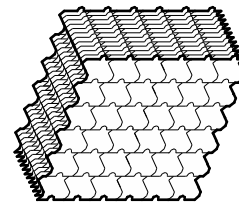
WHAT GIVES CRYSTALS THEIR SHAPES?



Everything is made up of molecules, but the molecules that form a crystal are all the same as each other, and only fit together in certain ways.



This means when you put a bunch of these molecules together, they form a pattern.



Let the pattern keep growing, and before you know it - PRESTO! - you've got a crystal.