

CRYSTAL ANIMALS

WARNING — THIS SET CONTAINS CHEMICALS THAT MAY BE HARMFUL IF MISUSED. READ CAUTIONS ON INDIVIDUAL CONTAINERS AND IN MANUAL CAREFULLY. NOT TO BE USED BY CHILDREN EXCEPT UNDER ADULT SUPERVISION.

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SAFETY

Safety Rules

Read these instructions before use, follow them and keep them for reference.

Keep young children and animals away from the experimental area.

Store this experimental set and the final crystal(s) out of reach of children under 7 years of age.

Clean all equipment after use.

Ensure that all empty containers and/or non-reclosable packaging are disposed of properly.

Wash hands after carrying out experiments.

Do not eat or drink in the experimental area.

Do not allow chemicals to come into contact with the eyes or mouth.

Do not apply any substances or solutions to the body.

Do not grow crystals where food or drink is handled or in bedrooms.

Do not use any equipment which has not been supplied with the set or recommended in the instructions for use.

Take care while handling with hot water and hot solutions.

Ensure that during growing of the crystal the container with the liquid is out of reach of children under 7 years of age.

First Aid

In case of eye contact: Wash out eye with plenty of water, holding eye open if necessary. Seek immediate medical advice.

If swallowed: Wash out mouth with water, drink some fresh water. Do not induce vomiting. Seek immediate medical advice.

In case of inhalation: Remove person to fresh air.

In case of skin contact and burns: Wash affected area with plenty of water for at least 10 minutes.

In case of doubt, seek medical advice without delay. Take the chemical and its container with you.

In case of injury always seek medical advice.

CAUTION!

For the solution containing potassium dihydrogen phosphate:
May cause eye irritation.

Do not get in eyes, on skin, or on clothing.

Wash hands thoroughly after handling.

Do not ingest. Use only as instructed.

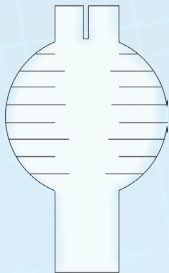
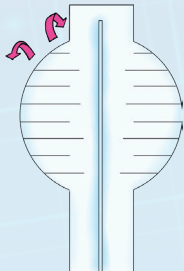
WARNING!

Not suitable for children under 3 years. There is a risk of choking due to small parts that can be swallowed or inhaled.

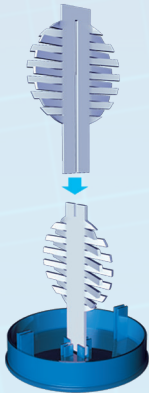
Keep the packaging and instructions, as they contain important information.

EXPERIMENT 1: CRYSTAL ANIMALS

1. Find a level work surface in a quiet place inaccessible to small children and pets. Your work surface should be able to get a little messy.
2. Fan out the cut sections of the two paper pieces (upper piece and lower piece) by bending them slightly forward and backward in alternation.



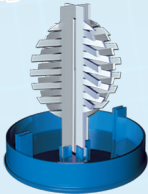
Tip! If you want different colors in the centers of your animals, it's easy to change. Just color the white filter paper with a felt-tip marker in whatever color you like. As the liquid rises up the paper, it will take the color with it, coloring the crystals.

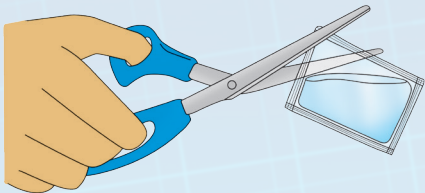


3. Push the lower piece into the cross-shaped mounting bracket in the blue dish, hold it tightly, and then insert the upper piece onto it. Be careful not to bend the paper sections.



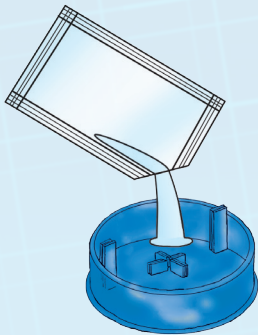
4. Set your animal card down onto the paper structure and secure the animal's feet in the holders on either side.





5. Use a pair of scissors to cut open a crystal growing solution packet at the corner. Always use scissors to cut open the packets at one corner. Never use your teeth.

6. Carefully fill the dish below the animal with the liquid. Now let your animal sit for a while and watch how it changes.



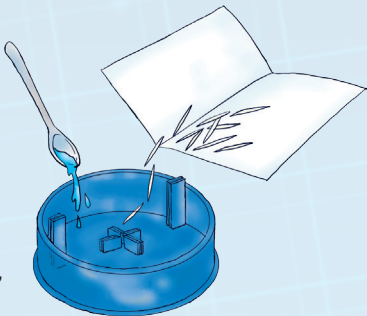
7. The liquid will first start to rise up the paper. The paper turns darker when it's wet. After a few hours, you will notice that all the liquid has disappeared from the dish. You will start to see a few fine needles at the edges of the paper tree, which will proceed to grow in size and number as time passes. Eventually, all the edges and some of the flat surfaces will be coated with a thick layer of white needles. Your animal has grown a fuzzy, glittering center.

8. Repeat these steps for the second animal.



EXPERIMENT 2: REUSING THE CRYSTALS

1. Use the spoon to scrape as many of the needles as possible off the crystal animal and collect them on a piece of paper that you have creased down the center. Then pour the crystals into the dish, using the crease to help guide them.



2. Pour water into the dish with a spoon, and stir carefully until the crystals have dissolved again.
3. Use this solution to make another crystal animal. You may have to use your own filter paper.

WHAT ARE CRYSTALS?

Some minerals possess a very special quality: They form cubes, sharp needles, crooked squares, octagons, or other complicated shapes with smooth faces that sparkle in the light. Some glow with a blue, green, or red color. Others are as colorless as ice, and just as clear. These regular shapes are called **crystals**. They form when atoms or molecules line themselves up in ordered ways. The most beautiful crystals are very sought-after and valuable. They have names like diamond, sapphire, ruby, and amethyst.

In extremely cold parts of the ocean covered by smooth sheets of ice, you can sometimes find beautiful, delicate flowers made entirely of ice. This happens when the air is so cold, calm, and dry that it sucks water from the ice, and then deposits the water bit by bit in the form of fine ice crystals. Sometimes whole “meadows” of **frost flowers** cover large expanses of ice. Polar bears and penguins live in extremely cold climates too, and while they do have fuzzy bellies to keep them warm, they are not made of ice crystals!