SAFETY RULES:

- Read these instructions before use, follow them and keep them for reference.
- Keep young children, animals away from the experiment area.
- Store this experimental set and final crystals out of reach of children under 8 years of age.
- Clean all equipment after use.
- Make sure that all containers are fully closed and properly stored after use.
- Ensure that all empty containers and/or non-reclosable packaging are disposed of properly.
- Wash hands after carrying out experiments.
- Do not use any equipment which has not been supplied with the set or recommended in the instructions for use.
- Do not eat or drink in the experiment 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.
- Take care while handling with hot water and hot solutions.
- Ensure the during growing of the crystal the container with the liquids is out of reach of children under 8 years of age.
- Make sure that all containers are fully closed and properly stored after use.

INGREDIENT LIST:

Crystal Growing Powder(White)

Name	% by weight
Mono-ammonium phosphate CAS no. 7722-76-1 EC no. 231-764-5	100

Crystal Growing Powder(Red)

Name	% by weight
Sunset Yellow food coloring E110	<0.1
Ponceau 4R food coloring E124	<0.1
Mono-ammonium phosphate CAS no. 7722-76-1 EC no. 231-764-5	99.9

Crystal Growing Powder(Purple)

Name	% by weight
Amaranth food coloring E123	<0.08
Brilliant Blue food coloring E133	<0.08
Mono-ammonium phosphate CAS no. 7722-76-1 EC no. 231-764-5	99.92

Crystal Growing Powder(Yellow)

Name	% by weight
Tartrazine food coloring E102	0.08
Mono-ammonium phosphate CAS no. 7722-76-1 EC no. 231-764-5	99.92

Crystal Growing Powder(Green)

Name	% by weight
Tartrazine food coloring E102	<0.08
Brilliant Blue food coloring E133	<0.08
Mono-ammonium phosphate CAS no. 7722-76-1 EC no. 231-764-5	99.92

Crystal Growing Powder(Blue)

Name	% by weight
Brilliant Blue food coloring E133	0.28
Mono-ammonium phosphate CAS no. 7722-76-1 EC no. 231-764-5	99.72

PLEASE OBSERVE THE FOLLOWING STATEMENTS (RISK AND SAFETY ADVICE).

Mono-ammonium phosphate NH4H2PO4
CAS no. 7722-76-1 EC no. 231-764-5
S24 Avoid contact with skin.
S25 Avoid contact with eyes.

DISPOSAL OF CHEMICALS:

The used chemicals can safely be flushed down the drain with plenty of water.

EXPLORE ONE
Where Learning Meets Fun

GROW YOUR OWN CRYSTAL PALACE

⚠ WARNING:

– This set contains chemicals that may be harmful if misused. Read cautions on individual containers carefully. Not to be used by children except under adult supervision.

⚠ WARNING:

– Not suitable for children under 8 years. For use under adult supervision. Contains some chemicals which present a hazard to health. Read the instructions before use, follow them and keep them for reference. Do not allow chemicals to come into contact with any part of the body, particularly the mouth and eyes. Keep small children and animals away from experiments. Keep the experimental set out of reach of children under 8 years old. Eye protection for supervising adults and children is not included.

ADVICE FOR SUPERVISING ADULTS:

1. Read and follow these instructions, the safety rules and the first aid information and keep them for reference.
2. The incorrect use of chemicals can cause injury and damage to health. Only carry out these experiments which are listed in instructions.
3. This experimental set is for use only by children over 8 years.
4. Because children's abilities vary so much, even within age groups, supervising adults should exercise discretion as to which experiments are suitable and safe for them. The instructions should enable supervisors to assess any experiment to establish its suitability for a particular child.
5. The supervising adult should discuss the warnings and safety information with the child or children before commencing the experiments. Particular attention should be paid to the safe handling of acid, alkalies and flammable liquids.
6. The area surrounding the experiment should be kept clear of any obstruction and away from the storage of food. It should be well lit and ventilated and close to a water supply. A solid table with a heat-resistant top should be provided.
7. Substances in non-reclosable packaging should be used up (completely) during the course of one experiment, i.e. after opening the package.

FIRST AID INFORMATION

Most important: In case of injury, seek medical assistance immediately.
1. In case of eye contact: Wash our eye with plenty of water, holding the eye open if necessary. Seek immediate medical advice.
2. If swallowed: Wash out mouth with water; drink some fresh water. Do no induce vomiting. Seek immediate medical advice.
3. In case of inhalation: Remove person to fresh air.
4. In case of skin contact and burns: Wash affected area with plenty of water for at least 10 minutes.
5. In case of doubt, seek medical advice without delay. Take the chemical and its container with you.
6. In case of injury always seek medical advice. Write the telephone number of your nearest Poison Control Center that can be reached in an emergency. _____

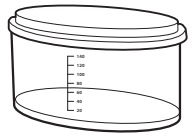
IMPORTANT: You will need a jug of steaming hot water.
OPTIONAL: Rubber gloves, an apron and protective goggles (not included).

PACKAGE CONTENTS

1 bottle of crystal growing powder


1 crystal-growing base


1 stirring spoon

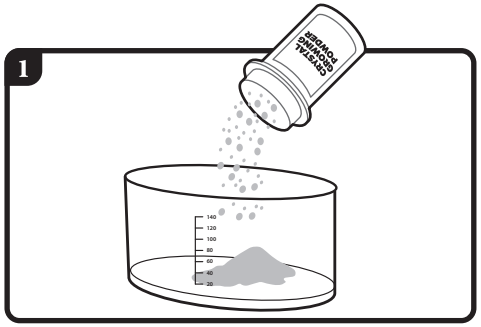

1 container with lid

Customer Service: 866.252.3811

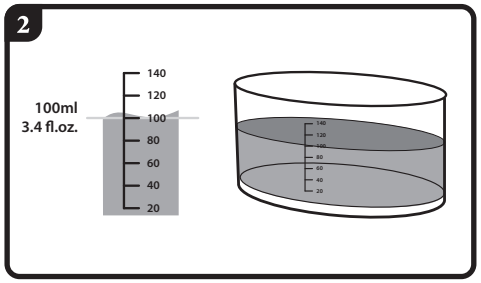
Please read all instructions to help you understand all the procedures before you start. If there is anything you don't understand or are not sure about, please ask an adult such as one of your parents/relatives or a school teacher. Using the kit, you will need adult supervision at all times. Take great care when using hot/boiling water and the solutions you will produce. Also, as the crystal columns you will make can be sharp and are easily broken, be very careful when handling your crystals, so you don't hurt yourself or break your lovely crystals.

Instructions:

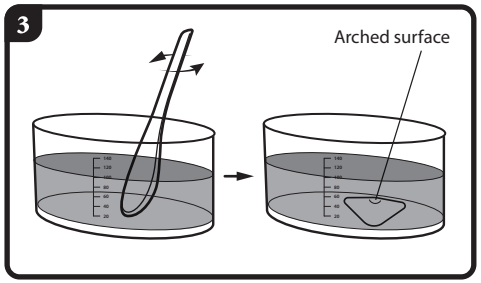
1. Remove the lid from the crystal-growing container, then open the bottle of crystal-growing powder and pour all the powder into the container.



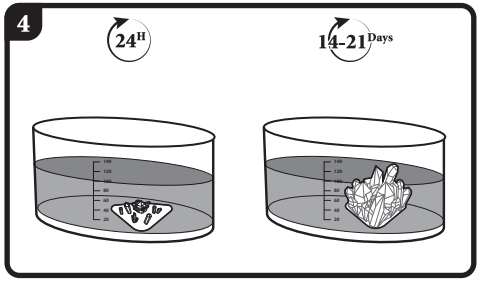
2. Prepare 100ml (3.4 fl.oz.) of clean hot water to grow your crystals in. Use boiling water (100C / 212F) if possible, as this is best for making the crystals grow. Be careful when handling hot water – ask an adult to do this part for you. To measure out exactly 100ml (3.4 fl.oz.), look on the side of the container for markings and pour boiling water into the container until it reaches the 100ml marker on the side of container. Measure the amount of boiling water as precisely as you can. If you use too much water, or not enough, your crystal growing might not work properly.



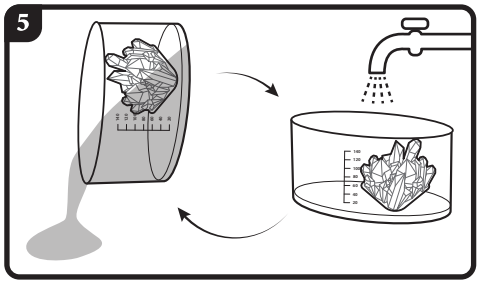
3. As soon as you have added the water, quickly stir the crystal-growing powder into the water with the stirring spoon until all the powder is dissolved. Then place the crystal-growing base into the crystal container, MAKING SURE the arched surface of the growing base is pointing upward. Use the stirring spoon to position the growing base near the center of the bottom of the container. Do not stir or shake the solution after this.



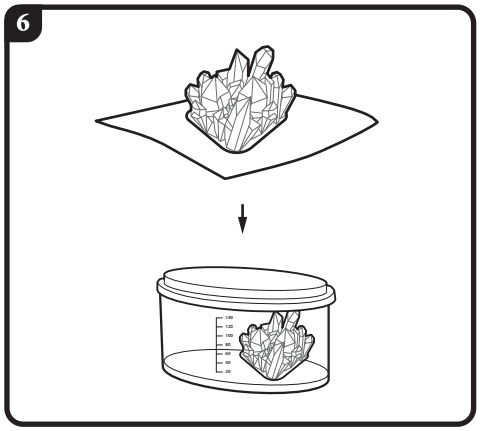
4. Find a location for the growing container where the temperature stays relatively constant and where the crystals can happily grow undisturbed. After 24 hours, some growing crystals clusters should start to appear on the base. Shining a bright focused flashlight through the container from the opposite side you're looking from will help you spot crystals growing and extending in the solution. In good growing conditions, the crystals can grow to reach the surface of the solution in 14 to 21 days. The crystals' size and growing time will vary depending on the environment you grow them in. If the environment is cold and humid, it will take longer for them to grow*.



5. When the growing crystals have reached the surface of the solution, pour away the remaining solution. Then carefully use the stirring spoon to hold the crystals in place in the container as you tilt it to pour the solution away. You cannot use the solution again, so **BE SURE YOUR CRYSTALS HAVE GROWN TO A NICE BIG SIZE** and reached the surface of the solution before you pour it away. After pouring off the solution, gently rinse the crystals with fresh cold water for a few seconds, then immediately pour away the water. Don't wash the crystals for too long, or the water will dissolve them.



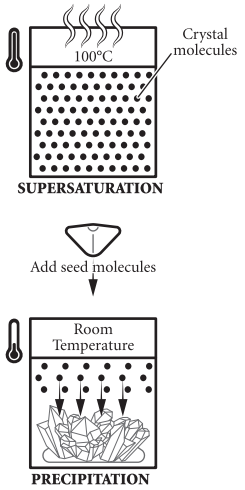
6. Now carefully remove your crystals from the container and place them on paper towels to dry. Rinse the container with fresh water as well and wipe it dry with a tea towel or paper towels. Once the crystals and container are completely dry, put the crystals back into the container and replace the container lid to protect them. Your crystals are completed! Now you can display them as part of your crystal collection!



7. If you find the crystals are difficult to remove because they have stuck to the bottom of the container, we recommend: Lay some paper towels on the table/desk in front of you, and also insert a ball of paper towels into the top of the container, as a cushion. Then turn the container upside down and press firmly on the bottom of the container, until the crystals peel off from the bottom. Lift the container (still upside down) and gently tap it onto the paper towels on your tabletop. Keep on tapping and this will make the crystals gradually drop down onto your cushion of paper towels.

How does it work?

When you add the crystal powder to hot water, it breaks up into tiny crystal molecules in the water. These crystal molecules are far too small to see (unless you use a microscope). When you add the crystal powder to the right amount of hot water, a "supersaturated" solution is formed (if you stir in more powder, no more can dissolve). Because hot water can dissolve more crystal molecules than cold water, the water cannot contain all the crystal molecules when it cools down, so some crystal molecules fall back out of the solution into solid form. We have a special word for this – we say molecules "precipitate" out of solution. As they precipitate, the crystal particles join with the crystal molecules on the growing base. The crystals on the growing base are called "seed" molecules and the crystal particles coming out of the solution attached themselves to the seed molecules.



Meanwhile, the water in the solution has been evaporating into the air (drying up), leaving a stronger and stronger crystal solution behind (*cold, humid conditions slow growing down because they slow evaporation down). So more and more crystal molecules gradually join (fuse) with the ones already on the base, forming larger crystals. Because all the solution molecules are the same kind (all from the same crystal powder), they all form crystals of the same shape, which all stick together, making a big chunk of crystals that are beautiful and interesting to look at! All the best of all – **YOU MADE THEM!**