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 the 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 that during growing of the crystal the container with the liquids is out of reach of children under 8 years of age.

INGREDIENT LIST:

Crystal Growing Powder (White, Item 36121):

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

Crystal Growing Powder (Purple, Item 36122):

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

Crystal Growing Powder (Green, Item 36123):

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

Crystal Growing Powder (Red, Item 36124):

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

Crystal Growing Powder (Yellow, Item 36125):

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

Crystal Growing Powder (Blue, Item 36126):

Name	% by weight
Brilliant Blue food colouring 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.

M 36121-6 V1 ENG

GROW YOUR OWN METEORIC GEODE

⚠ **WARNING** – This set contains chemicals and apparatus 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 is not included.

ADVICE FOR SUPERVISING ADULTS:

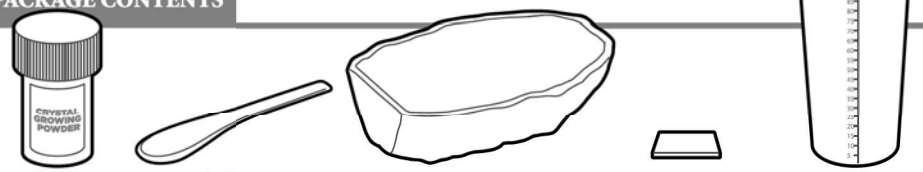
1. Read and follow these instructions, the safety rules and the first aid information and keep them for reference.
2. The incorrect use of chemical can cause injury and damage to health. Only carry out these experiments which are listed in instructions.
3. This experimental set is for use only by children 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, get medical assistance immediately.

1. In case of eye contact: Wash out 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 not 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: _____

PACKAGE CONTENTS



1 bottle crystal-growing powder | 1 stirring spoon with measurements | 1 meteoric geode rock-crystal growing base | 1 piece double-sided adhesive tape (for mounting) | 1 mixing cup with measurements

YOU WILL ALSO NEED: a jug of steaming hot water, rubber gloves, an apron and protective goggles.

Tel: (852) 2333-6688

Imported by: Eastcolight (Hong Kong) Ltd. 67 Mody Road, Kowloon, Hong Kong

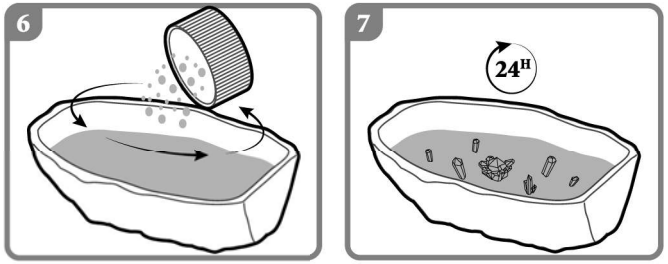
Please read all the instructions to help you understand all the procedures before you start. If there is anything you don't understand or are unsure about, please ask an adult such as one of your parents/relatives or a schoolteacher. Using this kit, you will need adult supervision at all times. Take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

INSTRUCTIONS:

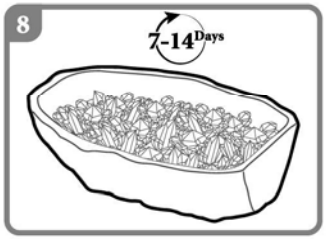
1. Open the bottle of crystal-growing powder and use the stirring spoon to load about 1ml (see measurements inside spoon) of the powder into the lid of the bottle for **'seeding'** later.
2. Pour all the remaining powder into the measuring cup.
3. Prepare 100ml (3.4 fl.oz.) of clean hot water to grow your geode rock-crystal with. If possible, use boiling water (100°C / 212°F), as this is best for making a solution your geode rocks can grow well in. Be careful when handling such hot water — ask an adult to help you with this part or do it for you. To measure out exactly 100ml (3.4 fl.oz.), pour boiling water into the measuring cup until it reaches the mark numbered 55mm in the measuring cup. Measure the amount of boiling water as exactly as you can. If you use too much water, or not enough, your geode crystal growing might not work as well as it should.

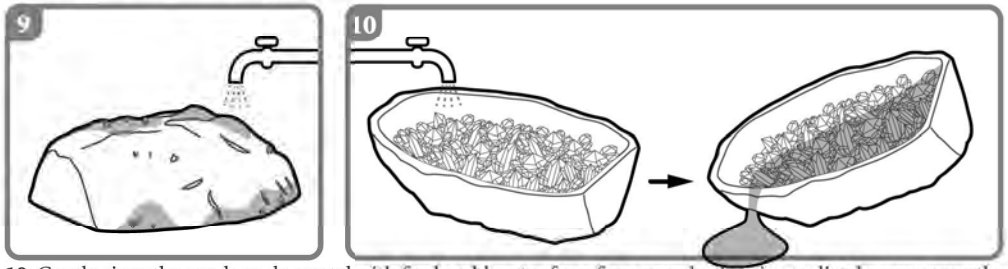
4. As soon as you have added the water, quickly stir the crystal-growing powder into the water with the stirring spoon, and keep stirring until all the powder is dissolved, which should take from 3 to 5 minutes.
5. Pour the solution into the meteoric geode rock-growing base. Allow the solution to cool inside the base for about 15 minutes.
6. Gently sprinkle all the seeding powder you reserved earlier evenly over the surface of the solution.
7. Find a location for your geode rock-crystal where the temperature stays as constant as possible, and where the contents can happily grow undisturbed. Some growing crystal clusters should start to appear inside the base within 24 hours. Shining a bright flashlight beam into the geode rock base will help you spot crystals growing and expanding in the solution.

Note: On days 2 and 3 of the growing process, you might start to see some small crystal flakes growing in places on the inside surface of the meteoric geode crystal-growing base. This effect is called 'crystal climbing' (see **WHAT IS CRYSTAL CLIMBING?** below for more details).



8. In good growing conditions, the geode rock can keep on growing until the solution has completely evaporated (dried up) in a time period from 7 to 14 days. The crystals' size and growing time in the geode rock-crystal base will vary depending on the environment you grow them in. If the environment is cold or humid, they will take longer to grow.
9. When the growing solution has completely evaporated, and your rock-crystal is fully grown, gently rinse and remove any crystal deposits climbing on the back of the meteoric geode rock-growing base. Try not to knock or squeeze the meteoric geode rock-growing base, so that you don't break crystals away from the geode rock-crystal inside it.

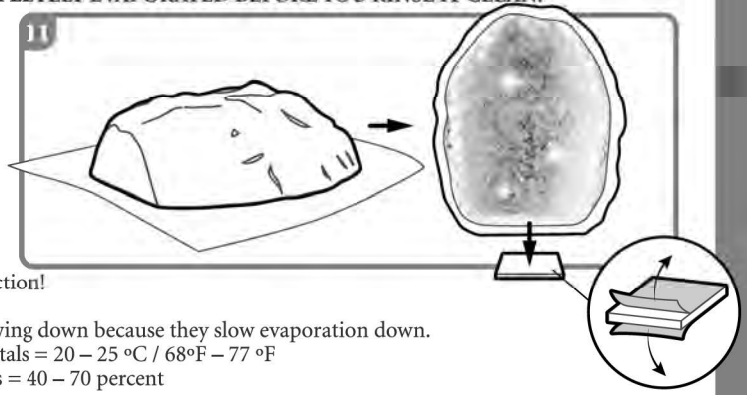




10. Gently rinse the geode rock-crystal with fresh cold water for a few seconds, then immediately pour away the water. Don't wash the rock-crystal for too long, or the water will dissolve it. You cannot restart the growing process using the solution again, so **BE SURE YOUR ROCK-CRYSTAL HAS GROWN TO A NICE BIG SIZE AND THE SOLUTION HAS COMPLETELY EVAPORATED BEFORE YOU RINSE IT CLEAN.**

11. Now carefully place the geode rock-crystal on paper towels to dry. Once the geode rock-crystal is completely dry, peel the protective sheets from the double-sided adhesive mounting tape, and use it to stand the geode rock-crystal up and secure it.

Your meteoric geode rock-crystal is complete! Now you can display it as part of your rock or crystal collection!



- Cold, humid conditions slow growing down because they slow evaporation down.
- Best temperature for growing crystals = 20 – 25 °C / 68°F – 77 °F
- Best humidity for growing crystals = 40 – 70 percent

WHAT IS CRYSTAL CLIMBING?
Crystal climbing is when small crystal flakes grow around the inner surface of the meteoric geode rock-growing base during the crystal-growing process. The crystal flakes are formed because liquid moves up through the tiny gaps between the larger forming crystals and between those crystals and the surface of the rock-growing base (this movement of the water is called 'capillary action'). Then as the water evaporates and becomes more concentrated, crystal flakes begin to grow in it.

HOW DOES IT ALL 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 without a microscope. When you add the crystal powder to the right amount of hot water, a 'supersaturated' solution is formed (no more powder can dissolve in it).
Because hot water can dissolve many more crystal molecules than cold water, the water cannot contain all the crystal molecules when it cools down, so some crystal molecules 'fall out' of 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 'seed' crystal molecules on the growing base.
Also, the water in the solution has been evaporating, leaving a stronger and stronger crystal solution behind. So more and more crystal molecules gradually join (fuse) with the ones already on the base, forming larger crystal deposits. Because all the molecules in the solution are the same kind (all from the same mineral in the same crystal powder), they all form crystals of similar shape that all stick together, making a big chunk of crystals.
Partly because the 'capillary action' of the liquid in the geode created all sorts of interesting borders and lines inside it, this big rock-crystal is beautiful and interesting to look at!
And best of all — YOU MADE IT!