

VOLCANIC ERUPTION EXPERIMENTAL KIT



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, alkalis 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: _____

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 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.

SODIUM BICARBONATE POWDER INGREDIENTS:

Name	ID	% by weight
Sodium bicarbonate NaHCO ₃	CAS Number 144-55-8	
	EC Number 205-633-8	99
Sunset Yellow food colouring	E110	<0.5
Ponceau 4R food colouring	E124	<0.5

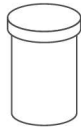
DISPOSAL OF CHEMICALS:

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

PACKAGE CONTENTS



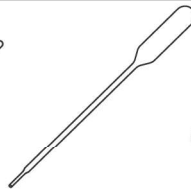
1 Bottle of dyed sodium bicarbonate



1 Plastic cup



1 Stirring rod



1 dropper



1 6in (Ø) x 4in (H) Special designed volcano model

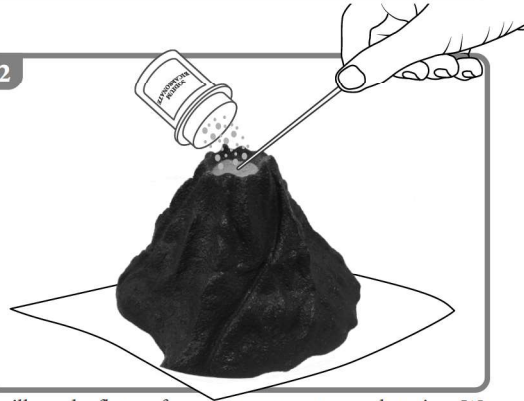
INSTRUCTIONS

1



1. Assemble the 2-piece volcano model as shown (Fig. 1). You will need a flat surface to prepare your workstation. We don't recommend performing the experiment on your dining room table or other nice, polished surface without covering the surface with plastic sheeting.

2



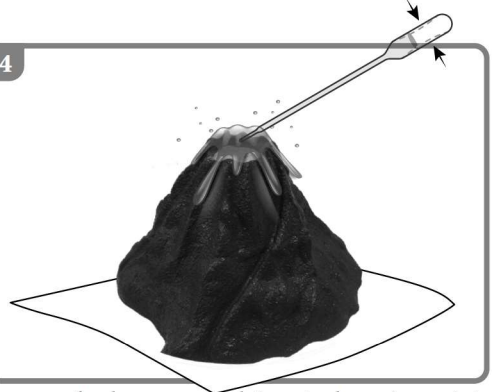
2. Make sure the volcano cone model is dry before you begin, then open the bottle of sodium bicarbonate powder. Use the provided rod to push enough of the sodium bicarbonate powder into the crater (also called 'caldera') to fill it to about halfway.

3



3. Pour approximately 40ml vinegar into the plastic cup, and squeeze the dropper several times to draw vinegar into it until it is full.

4



4. Use the dropper to add about half the vinegar into the caldera/crater. Do not locate your hands or eyes directly above the model, but use the length of the dropper to help you work from the side. Bubbles will start to flow out over the edges of the caldera just like a volcanic eruption. Repeat the process, dropping more vinegar into the volcano to continue the eruption.

5. You can clean your model then make the volcano erupt again whenever you like. If you finish the sodium bicarbonate powder in the kit, you can repeat the experiment using baking soda from the kitchen instead (ask an adult first!). And you can drop in lemon juice or coke instead of vinegar [SCIENCE TIP: The reason why lemon juice, coke and vinegar all produce the same reaction is that they are all highly ACIDIC].