

# Old Smoky Volcano



#### **ADULT SUPERVISION RECOMMENDED**

## **Advice for supervising adults**

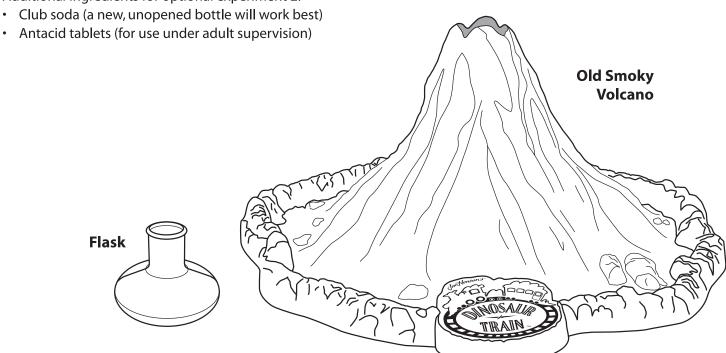
Keep all materials out of reach of young children and animals. Adults should use discretion in deciding if a child is mature enough to participate in the experiments. Conduct the experiments in a well-ventilated area with water nearby.

### Items needed

To begin your volcanic eruption experiments you will need to provide the following items:

- · Liquid dish soap
- · Baking soda
- Vinegar
- Food coloring (red and yellow)
- · Piece of paper

Additional ingredients for optional experiment 2:



## **Preparing Old Smoky for Eruption**

- 1. Connect the Flask onto the central vent as shown (Fig. 1).
- 2. When Old Smoky erupts, it can be messy, so be sure to cover and protect the area with newspaper as needed.
- 3. Place the Volcano on a level surface.
- 4. With each experiment, note the reaction when the ingredients are mixed. Which combination of ingredients will work the best? What's your hypothesis? Also, experiment by adding more drops of dish soap to see how the "lava" erupts and flows differently.



## **Eruption Experiment 1**

(use liquid dish soap, baking soda, vinegar and food coloring)

- 1. Measure 1 teaspoon of baking soda onto a creased piece of paper.
- 2. Pour the baking soda down the crease into the central vent.
- 3. Measure  $1\frac{1}{2}$  tablespoons of vinegar into a small cup.
- 4. Add 4 drops of dish soap into the vinegar.
- 5. Add 20 drops of red food coloring and 5 drop of yellow food coloring into the vinegar mixture.
- 6. Pour about half the vinegar mixture into the central vent to begin the eruption.
- 7. After the initial eruption, pour the remaining vinegar mixture into the central vent to finish the eruption.

**Eruption Experiment 2** – Requires ADULT SUPERVISION! (use liquid dish soap, club soda, food coloring and antacid tablet)

- 1. Crush 1 antacid tablet into small pieces on a creased piece of paper.
- 2. Pour the crushed antacid down the crease into the central vent.
- 3. Measure  $2\frac{1}{2}$  tablespoons of club soda into a small cup.
- 4. Add 6 drops of dish soap into the club soda.
- 5. Add 20 drops of red food coloring and 5 drop of yellow food coloring into the club soda mixture.
- 6. Pour about half of the club soda mixture into the central vent to begin the eruption.
- 7. After the initial eruption, pour the remaining club soda mixture into the central vent to finish the eruption.

#### Cleaning

After each experiment, rinse the volcano and run water down into the central vent of the volcano and into the flask to clear away remaining eruption ingredients. If needed, remove the flask and rinse out separately.

Do not wash parts in dishwasher.

#### **KEEP THESE INSTRUCTIONS FOR FUTURE REFERENCE — DO NOT DISCARD**

Ouestions? Go to unclemilton.com







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