

Volcano Design and Modeling Document

Materials List:

- Ketchup
- Baking Soda
- Vinegar
- Water
- Egg Carton
- Hot water
- 50 mL Beaker
- Hot Plate
- Pan
- Glue Gun
- Bowl
- Elmer's Glue
- Dinosaur figurine



Procedure:

1. Make the hot water and egg carton mixture and let it set for 30 minutes.
2. While you wait, make the internal structure of the volcano with the 50 mL beaker, foam, and hot glue.
3. After 30 minutes, drain the water from the egg carton mush and mix in some Elmer's glue to help it stick to the foam. Start to shape the volcano.
4. While waiting for the newly formed volcano to dry and set, start experimenting with the eruption mixture.
5. After experimenting over 10 times, we found the correct mixture. Mix 15 mL of ketchup with 25 mL of vinegar, then add it to the volcano. Add 10 mL of baking soda to the volcano to create the eruption.
6. Make sure to paint the volcano and add the final touches such as a dinosaur to add character to the project.
7. When ready to present add the vinegar and ketchup mixture to the volcano then watch the eruption take place as you add the baking soda.
8. Ka Boom!

Experimental Procedure:

1. We did several different experiments, starting with 50mL of ketchup and 1 tsp of baking soda
2. We tried 50 mL ketchup with 1 tbsp of baking soda solution (water and baking soda) .
3. We also tried 50 mL of diluted ketchup with 1 tbsp of baking soda
4. We also tried putting the ketchup before the baking soda along with baking soda before ketchup
5. We tested different amounts of ketchup and baking soda ratios
6. We decided to dilute the ketchup with vinegar instead of water because that is what makes the reaction happen. Also so we could mix the baking soda in easier.
7. Our final ratio ended up being 15 mL ketchup, 25 mL Vinegar and 10 mL baking soda.
8. Ka Boom!

EGG CARTONS CLAY | DIY PAPER MACHE USING EGG CARTONS |

<https://www.youtube.com/watch?v=sbF4ZbCODmE>

Citation:

Egg cartons clay | DIY paper mache using egg ... - youtube.com. (n.d.). Retrieved December 15, 2021, from <https://www.youtube.com/watch?v=sbF4ZbCODmE>