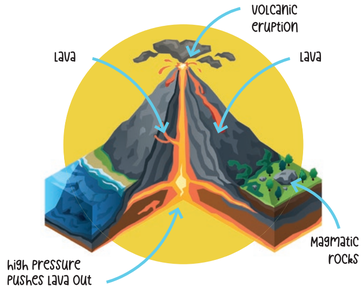
FROM THE SCIENTIFIC POINT OF VIEW

The Earth consists of various layers. Some of them are liquid, others are solid. The earth is constantly moving causing these shells to move. Sometimes they are so violent that they overlap to form **volcanoes**.

From time to time, so-called volcanic materials come out of volcanoes. These are: **dusts**, **gases** and hot **lava**. The process of escaping volcanic materials is volcanic eruption. In the middle of a real volcano, it's very hot!

As the temperature rises, so does the pressure. Very high pressure pushes hot lava and other volcanic materials outwards. As the lava flows down the slope of the volcano it cools and solidifies, forming **magmatic rocks**. Both lava and magma destroy the surrounding nature.



Our experiment illustrates the phenomenon described by means of a chemical reaction involving components calledsubstrates. The combination of the substrates (soda and acid solution) results in a new product, carbon dioxide (chemical formula CO_2).

The gas surrounded by the washing-up liquid molecules becomes a fluffy coloured foam. There is so much foam produced that it comes out of the flask like lava from a volcano!

COLORFUL ERUPTION

Colourful Eruption is a set dedicated to lovers of explosions and frothy fun. When the ingredients are combined in a laboratory flask, a chemical reaction takes place which produces a coloured, glittering foam that looks like volcanic lava.

The kit includes both solid ingredients, allowing this stunning experiment to be repeated several times, and wearable ingredients, available for purchase at the grocery shop or in our lab.

DID YOU MANAGE TO DO THIS EXPERIMENT?

We would be very pleased if you would be willing to share the result of your experience with us. Post a photo or video on Facebook or Instagram.
Mark us: **@KrainaEksperymentow :)**

KrainaEksperymentow

THE SET INCLUDES:

1. protective tray
2. flask glass
3. 100 ml measuring cup
4. dye in a bottle
5. citric acid capsule
6. test tube with baking soda
7. vial of glitter
8. teaspoon
9. test tube with dishwashing liquid
10. syringe
11. straw
12. instruction

KRAINA EKSPERYMENTÓW

COLORFUL ERUPTION

INSTRUCTION TO PERFORM THE EXPERIMENT

www.krainaeksperymentow-zgora.pl

FOR THE CURIOUS EXPERIMENTERS

Below we present the formula of a chemical reaction in our experiment. The result is a **sodium salt of acid, carbon dioxide** and **water**.

$$C_6H_8O_7 + 3\ NaHCO_3 \rightarrow Na_3C_6H_5O_7 + 3\ CO_2 + 3\ H_2O$$

The resulting salt is **sodium citrate**, an absolutely harmless compound. It can be found, for example, in fizzy drinks.

PLEASE NOTE!

Although the kits do not contain poisonous substances you must always be careful. While experimenting **do not eat or taste any products or ingredients**.

If you accidentally swallow any of the ingredients, rinse your mouth with water. In the event of any disturbing symptoms, take a leaflet and go to a doctor with it. The kit is **not suitable for children under 3 years of age**. After the conducted experiment **always wash your hands**.

1 PREPARATION OF THE FLASK

Pour the entire contents of the tube of baking soda (6) and all the glitter (7) into the flask (2) placed on a plate. Set the flask aside.

2 PREPARATION OF THE MIXTURE – ACIDIC SOLUTION

Pour 80 ml of water into the measuring cup (3) and pour in the entire contents of the citric acid capsule (5).

Using a teaspoon stir until the citric acid is completely dissolved. An acidic solution was formed.

Add all the washing up liquid to the container with the solution (9). Stir the mixture. Then add the dye (4) as desired.

3 COLOURFUL ERUPTION

Take a whole syringe (10) of the coloured mixture and inject into a flask with baking soda (2) and glitter. Observe the course of the reaction.

Repeat the process until our sour mixture runs out.

Acid solution in combination with baking soda produces gas: CO_2 – carbon dioxide.
Gas surrounded by particles of washing-up liquid becomes a fluffy coloured foam!

4 COOL! YOUR EXPERIMENT IS READY!

The resulting foam can be mixed with a spoon or a straw. It can be decanted, poured or scooped into a syringe and refilled in the flask.

Under adult control, you can dip the straw in the flask and gently blow in the remaining mixture there, then colourful bubbles will start to come out of the flask.

Have a great fun!