SUBMITTED BY
Irmgard

ON
2013.07.12

★ ★ ★ ★ ★
Keine Stimmen

Caution: risk of experimentation



Experiments that fascinate children.

This article is a Forum magazine article, which is attached as a pdf file.

Five experiments

Ignite a rocket without any fire at all. Watch the balloon inflate without blowing, as if from a ghost's mouth. "Conjure" worms out of a pile of sand or make a brown fountain erupt from the meadow.

It's not just boys who love experiments - most children are curious, want to know how things work and marvel at scientific phenomena. However, I have observed that boys in particular are more fascinated by experiments that "chlöpfed und tätsched", whose end product is something "scary" or a gigantic mass is created out of nothing, than by color games or sensory illusions. That's why we want to describe a few simple experiments with everyday objects that can be found in every household or sometimes in the pharmacy - almost harmless and without having to own a chemistry lab.

1. Gas balloon

You need:

- an empty bottle (0.5-1 liter)
- Vinegar
- Water
- Measuring cup
- Funnel
- Baking soda or baking powder
- Balloon

Fill the bottle about half full with 1/3 water and 2/3 vinegar (e.g. 1dl water and 2dl vinegar). Place it in a basin or outside. Using a funnel, pour approx. 1-2 teaspoons of baking soda into the balloon and pull it over the neck of the bottle so that it hangs to one side and the baking soda does not yet trickle into the bottle. Now lift the balloon up in front of you and let the baking soda trickle into the vinegar mixture. A huge number of bubbles will immediately form and the balloon will fill with gas without you

touching it.

2. Baking powder vinegar rocket

You need:

- a film canister with a tight-fitting lid or another well-sealable can, e.g. a tube of effervescent tablets
- Vinegar
- Baking powder or baking soda
- A spoon
- Colored paper
- Waterproof pens
- Adhesive tape or glue

Decorate the film can using the paper and pens. For example, you can make a rocket tip from a round circle of paper that you cut into the middle (5 cm in diameter). Glue the tip to the bottom of the film canister. You must "ignite" the rocket in the open air, as it can spike up to five meters high. Fill the can up to 1⁄4 full with baking powder. Now add one or two teaspoons of vinegar and close the can very quickly. Place the rocket on the ground with the lid down and quickly stand a few meters away. In just a few seconds, the rocket "ignites" itself and shoots into the sky.

3. Glove tree

You need:

- Three effervescent tablets
- A flower pot without a hole (approx. 10 cm in diameter and height)
- A thin latex disposable glove
- Potting soil
- Film can without lid
- Rubber band
- Water in a watering can or cup
- Nail
- Tongs
- Candle
- Match

Light the candle on a fireproof surface (preferably outdoors). Hold the nail in the flame using the tongs and heat it up. Now use the hot nail to drill about 20 holes in the bottom of the film canister.

Put the three effervescent tablets into the perforated film canister and pull the latex glove over the upper part of the canister. Attach the glove to the can with the rubber band. Carefully stuff the loose part of the glove into the film canister. Place the film can in the flower pot and carefully fill it with soil. The film can with the glove should no longer be visible, but there should also be no more than a 1 cm thick layer over the glove. Your mysterious plant is ready. Now you can give the flower pot to someone as a gift or demonstrate the "magic art". To do this, pour 1 cup of water into the flower pot and wait a few seconds. The soil begins to bubble and hiss. A glove tree grows out of the flower pot and stands wobbly upright.

4. Coke fountain

You need:

- a 1.5 or 2 liter PET bottle of Diet Coke
- a roll of Mentos (chewy sweets)
- an empty effervescent tablet tube
- Cardboard strip (small ruler or beer mat also possible)

Place the Coke bottle outside on a flat surface. Put four to five Mentos in the effervescent tablet tube and place the cardboard over the opening so that it completely covers it. Open the Coke bottle and place the effervescent tablet tube with the Mentos upside down on the bottle opening. Make sure, however, that the ruler, beer mat or cardboard still closes the opening well and that no Mentos can fall into the Coke bottle. Send all spectators a few meters away. Hold the tube with one hand and pull the cardboard away with the other so that the Mentos can fall into the bottle. And then jump to the side very quickly, because the fountain comes immediately. Unfortunately, the fountain also ends quickly.

5. Black ash worms

You need:

- Three Emser pastilles (without menthol, with sugar)
- A large cup full of sand (earth also works)
- Methylated spirits or petrol
- Matches
- Fireproof base (pile of sand, barbecue area, stone slab, large tin can lid)

Pour the sand into a small cone on the fireproof base. Place the Emser pellets face down vertically on the top of the sand cone. Soak the tablets in methylated spirits or petrol and light them with a match. Stand at a safe distance and watch what happens. A dark ash worm will slowly grow out of the cone of sand, which can be up to 30 cm long.

If you don't have Emser pastilles, you can also mix four teaspoons of powdered sugar and one teaspoon of baking powder together, place on the fireproof surface and soak with methylated spirits or petrol. When you ignite the powder, many small black worms will grow out of it over time.

6. Match rocket

You need:

- a box of matches
- Aluminum foil
- a pair of scissors
- a large paper clip
- a fireproof base
- Possibly a lighter

Cut a piece of aluminum foil about 2.5 x 5 cm in size. Place two matches, head to head, on the aluminum foil. Roll both match heads in this foil. Wrap one head very tightly (press down) and the other loosely. Bend the paper clip into a launch pad. Place your match rocket on the ramp so that the tightly wrapped part is pointing upwards. To ignite the rocket, hold a lit match or lighter under the two wrapped match heads. As soon as it fizzes, quickly pull your hand and especially your head away. After ignition, the top match and the aluminum foil will fly several meters through the air. If the foil "burns through" as soon as you light it, use thicker aluminum foil, such as that used for barbecuing.

7. Disgusting porridge

You need:

- Cornflour (e.g. cornflour)
- Water
- Bowl
- possibly food coloring

Put two cups of cornflour in a bowl and add a few drops of food coloring if you like. While one person kneads, the other person slowly adds a cup of water. Knead the dough well and leave it to stand for a while. Dip your finger slowly into the paste and you will sink into it just like any other liquid. However, if you apply pressure to the porridge, for example by hitting it with your fist, it will turn into a solid and will not splash. If the porridge is too runny, you need to add more cornflour; if it is too solid and no longer flows, you need to add a little water. You can store the porridge in an airtight container in the fridge for several days. Only experiment with the porridge over the sink, in a plastic tub or outdoors. If you feel like it, you can have a disgusting porridge fight in swimming trunks. If you squeeze the porridge together, you can form a ball out of it, but if you put it on your opponent's shoulders or throw it at him, it will run over his body in a disgusting, thick liquid. It's also great fun to mix disgusting mush in a large plastic tub and then kick around in it with your feet. If you walk in place, the porridge may support your body weight. But if you stand still and the pressure eases, you will sink into the porridge.

Caution: Danger of experimentation_YW

Source reference



- **Contents and picture:** Forum Kind issue 2/10, pages 23 + 24. experiments: Caution: Danger of experimentation. © Copyright www.forum-kind.ch
- **Author:** Barbara Pfister

Weitere Informationen

Categories
Games and activities

Tags
Experiment
Science
Children
Article
Forum

Number of participants
No data available.

Bible
This information is missing.

Duration
No data available.

Terrain / surroundings
In enclosed spaces

File download
File download available

KI Generierter Inhalt
Contents
Categories
Tags
Number of participants
Bible
Terrain / surroundings

© YoungstarsWiki | https://youngstarswiki.org/en/wiki/art/caution-risk-experimentation