



SOAPBOX SCIENCE
MUNICH e.V.

PROUDLY PRESENTS

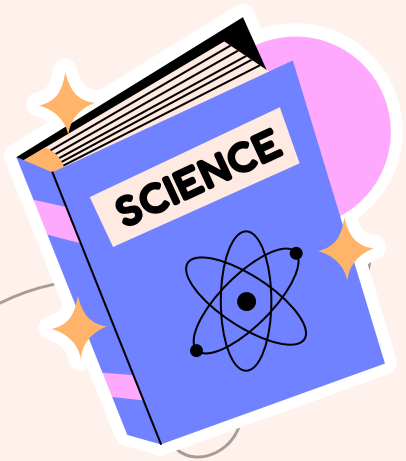


THE

KIDS' CORNER

EXPERIMENT BOOKLET

2026



11th of July
Rindermarkt

Soapbox Science
München

2026 EVENT



Speakers

supported by

Amna Irshad
Bhavishya Nelakuditi
Enisa Smlatic
Finta Francis
Ioanna Garefalaki
Lisa Marie Livancic
Mara Schilling-
Wilhelmi
Maria Ferree
Niloufar Tabandeh
Nina Müller
Pia Heinrichs
Zsófia Meggyesi



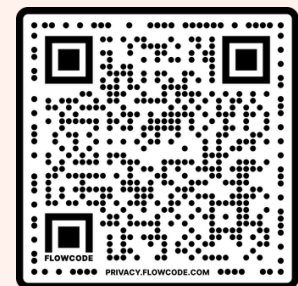
Graduate School of
Systemic Neurosciences
LMU Munich



Landeshauptstadt
München
**Referat für Arbeit
und Wirtschaft**

SOAPBOX SCIENCE MUNICH

“Our vision is a world where everyone understands the scientific process and the importance of science for society”



SCAN HERE

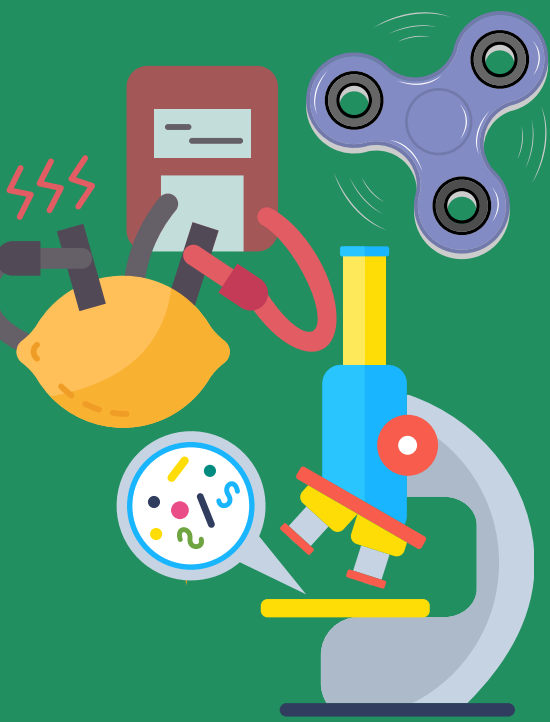


TABLE OF CONTENTS

01 EXPERIMENTS FROM CHEMISTRY

- a Colour magic with red cabbage juice
 - b Homemade lava lamp
 - c Magic balloon
-

02 EXPERIMENTS FROM ENGINEERING

- a Let's build a paper helicopter!
 - b Air cushion vehicle
 - c Light up an LED with a lemon
-

03 EXPERIMENTS FROM BIOLOGY AND MEDICINE

- a From tiny to giant: Microscopy
 - b How does our cardiovascular system work?
 - c Lung model: Breathing - but how?
-

04 ADDITIONAL EXPERIMENTAL FUN!

- a Let's build a vinegar rocket!
 - b Build your own toothbrush robot!
 - c Build your own Winogradsky column - treasure hunt in the soil!
-



01 CHEMISTRY



a. Colour magic with red cabbage juice ✨

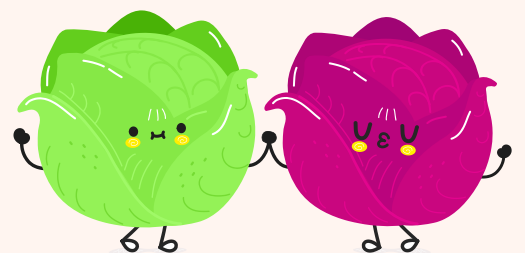
Background knowledge

In everyday life, we are surrounded by substances that are either acidic, alkaline or neutral. Examples include vinegar (acidic) and soap (neutral or alkaline). These substances are also said to have different pH values. The pH value is a number that indicates how acidic or alkaline something is. ✨

Red cabbage contains a pigment called cyanidin, which can indicate the pH value of substances by changing its colour. When mixed with acidic substances, it turns red – but if mixed with alkaline substances, it turns green! Dyes that exhibit these properties are called indicators.

Materials

- Test tubes or beakers
- Spoons
- Kitchen paper (for cleaning afterwards)
- Pipettes
- Red cabbage juice and lemon juice
- Vinegar essence
- Cola
- Mineral water
- Milk
- Baking powder
- Soap (pH skin neutral)
- Detergent (dissolved in water)



a. Colour magic with red cabbage juice ✨

Goal of the experiment

What happens when you mix everyday substances with red cabbage juice? How many colours can you produce?

Instructions

1. Place the test tubes in a test tube rack on a table.
2. Fill each test tube halfway with water and add some red cabbage juice until the solution has some color, but you can still see through it.
3. Pour the different substances into separate test tubes, leaving one test tube filled only with red cabbage juice for comparison.
4. After filling, gently swirl the test tubes so that the substances mix (tip: hold the test tube between your index finger and thumb at the opening and gently swirl it from side to side).
5. Sort the test tubes by colour!

b. Homemade lava lamp



Materials

- Large clear glass jar or plastic bottle with smooth sides
- Vegetable oil
- Water
- Water-soluble food colouring
- Effervescent tablets



Instructions

1. Fill the bottle about a quarter full with water.
2. Pour the vegetable oil into the bottle until it is almost full.
3. Wait a few minutes until the oil and water have separated.
4. Add a few drops of food colouring. Watch how the colour sinks through the oil. Did the drops of colour mix with the water immediately or did they float between the two for a few minutes?
5. Break the effervescent tablet into small pieces and drop them into the bottle.
6. To activate the lamp again and again, you can drop in more pieces of effervescent tablet.

Caution!

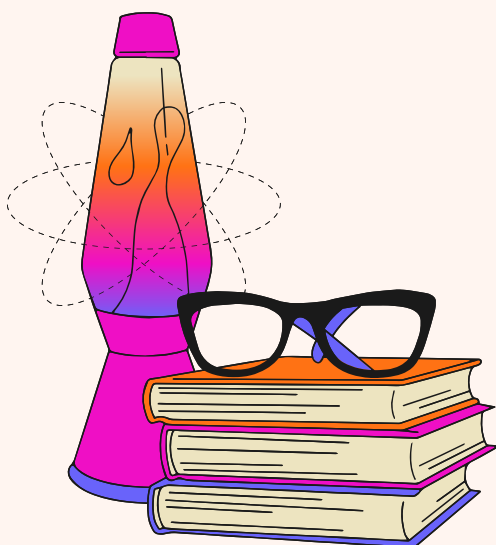
Do NOT put a lid on the jar or bottle while the mixture is active and bubbling.

b. Homemade lava lamp



Explanation:

Oil floats on water because it has a lower density (or weight) than water. Food colouring is not easily soluble in oil, but it is soluble in water, which is why it sinks through the oil and mixes with the water. When the effervescent tablet is added, it first sinks to the bottom and begins to dissolve, forming a gas, carbon dioxide. The gas rises to the top and takes some of the coloured water with it to the surface. As soon as the bubbles with the gas burst at the surface of the oil, the water droplets sink back down. This process repeats itself until all the gas produced by the tablet has risen.



c. Magical balloon

Materials

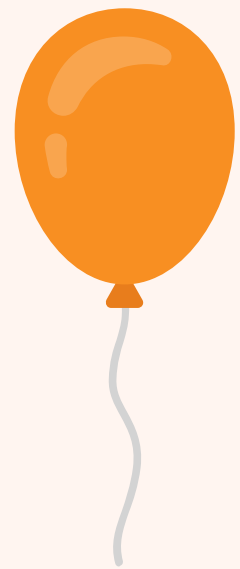
- Balloon
- Baking powder or bicarbonate of soda
- Vinegar (preferably vinegar essence, otherwise 5% household vinegar will do),
- Empty bottle
- Funnel
- Spoon
- Candle
- For small children: an adult to help.

Goal of the experiment

What happens when baking powder/bicarbonate of soda and vinegar come into contact, what gas is produced and what are the properties of this gas?

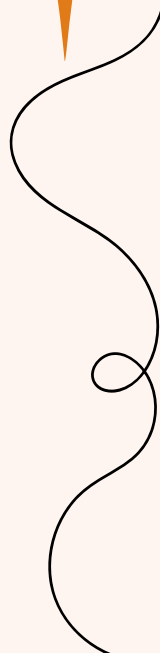


c. Magical balloon

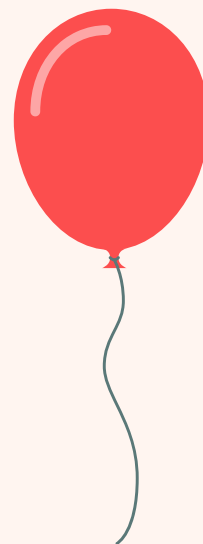


Instruction

1. Place all materials on a table.
2. Take the empty bottle and place it on the table. Pour approximately 1/4 cup of vinegar (if using 5% household vinegar, the reaction may be slower) into the bottle, using a funnel to avoid spillage.
3. Now take the spoon and the baking powder/bicarbonate of soda. Carefully pour 1-2 spoonfuls of baking powder/baking soda into the balloon – again, use a funnel to avoid spilling anything (important: the funnel must be clean and dry!).
4. The balloon must now be placed over the bottle in such a way that none of the baking powder gets into the bottle. Ask an adult for help if necessary. Make sure the balloon is large enough: if you use a balloon that is too small, it could burst during the experiment! Once the balloon is on the bottle, turn the balloon so that all the baking powder/baking soda falls into the bottle and hold the balloon firmly around the neck of the bottle.
5. Now you can watch what happens! The baking powder and vinegar will start to react and form carbon dioxide (CO_2), which will inflate the balloon. Wait a moment and watch as the balloon continues to inflate.



c. Magischer Luftballon



Instructions (continued)

6. Once the balloon is fully inflated, carefully remove it from the bottle and hold the opening of the balloon closed – you will need the gas for a second experiment!
7. Utilise the properties of carbon dioxide: Light the candle and place it in a safe location where it cannot fall over. Make sure it is burning well. Take the balloon that you filled with CO_2 earlier. Keep the balloon tightly closed to ensure that the CO_2 does not escape. Hold the CO_2 balloon over the candle flame so that the balloon touches the flame. Gently squeeze the balloon so that the CO_2 flows out of the balloon over the flame. Watch what happens when the CO_2 flows out of the balloon over the flame. The flame should go out because the CO_2 displaces the oxygen around the flame, thus stopping combustion. You have demonstrated on a small scale the principle behind carbon dioxide fire extinguishers!



Caution!

Be sure to handle the balloon and candle safely! The mixture of vinegar and baking powder can be disposed of in the sink with plenty of water.

c. Magischer Luftballon



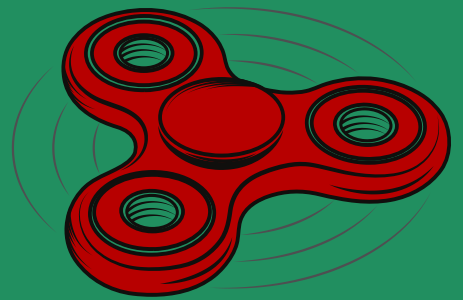
Explanation

When baking powder is mixed with vinegar, a chemical reaction occurs. Baking powder contains a substance called sodium bicarbonate (baking soda is pure sodium bicarbonate), which reacts with the acetic acid in the vinegar. This reaction produces carbon dioxide gas (CO_2), which is released in the form of bubbles. Since the balloon is above the bottle opening, it traps the CO_2 , which inflates the balloon. This happens because the CO_2 gas flows into the balloon and expands it, increasing the volume of the balloon. At the end of the experiment, the balloon is filled with CO_2 gas and inflated. When we hold the CO_2 -filled balloon over the candle, the CO_2 flows out of the balloon and surrounds the flame. The CO_2 displaces the oxygen that the flame needs to burn, causing it to go out. The carbon dioxide we have produced and collected in the balloon is the same gas that we breathe out and that is also in the air around us.





02 ENGINEERING



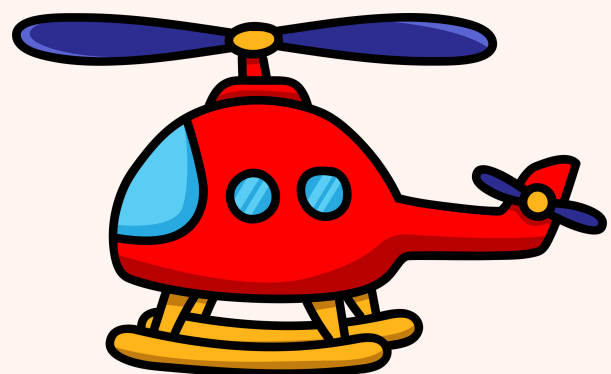
a. Let's build a paper helicopter!

Background knowledge

A real helicopter flies because an engine rotates the rotor blades, thereby generating lift. Due to the shape and movement of the rotor blades, the air pressure above the blades is lower than below them. This generates lift, causing the helicopter to rise. Your paper helicopter works in reverse, because it flies according to the principle of autorotation. When it falls, the airflow pressing down on the rotor blades causes them to rotate. The paper clip attached to the helicopter serves as its centre of gravity, ensuring that the rotor blades remain in the correct position, pointing upwards. After an initial nosedive, the helicopter quickly begins to slow its descent and continues to move in a rotating motion. Incidentally, real helicopters also use the autorotation principle in emergencies, e.g. when the engines fail. This has enabled many pilots to land safely. The paper helicopter is modelled on nature: it uses exactly the same principle as lime or maple seeds, which fall to the ground rotating in the air.

Materials

- Paper
- Ruler
- Pencil
- Scissors
- Paper clip



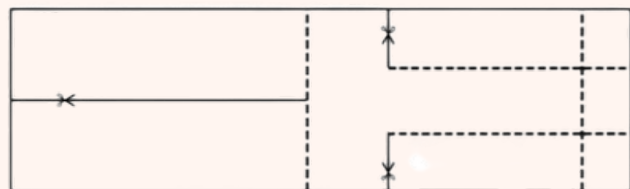
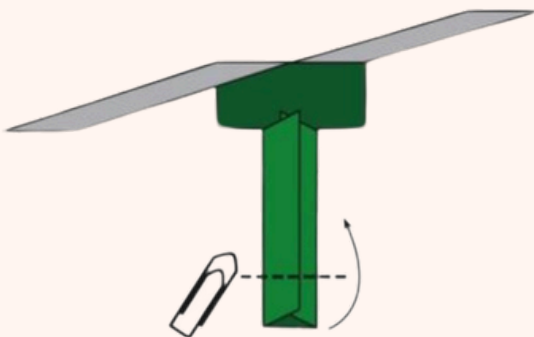
a. Let's build a paper helicopter!

Experiment

We are constructing an aeroplane that is simply released and slowly glides to the ground, rotating around its own axis. This resembles the flight seeds of some plants, e.g. maple seeds.

Instructions

1. Take a strip of paper and cut and fold it as shown in the enclosed construction plan (solid lines are cut, dotted lines are folded).
2. To give the helicopter some weight, attach a paper clip to the folded foot. You can also paint the helicopter if you like.
3. Done – for a longer flight, it is best to drop it from a great height.



b. Hovercraft

Background knowledge

A hovercraft is a vehicle that travels on a cushion of air without touching the ground. It can travel over land or water. Hovercrafts use blowers to create a large volume of air under the hull or an air cushion. This volume of air is slightly above atmospheric pressure. The pressure difference between the higher pressure air under the hull and the lower pressure ambient air above it creates lift, causing the hull to float above the running surface.

In your homemade hovercraft, you open the balloon valve to let the air out. The only way it can escape is through the small hole in the CD. Since it cannot flow vertically downwards, it spreads evenly in all directions. This creates a thin film of air, similar to an air cushion, on which the CD can move in all directions. This works until the air flow stops and the balloon is empty.

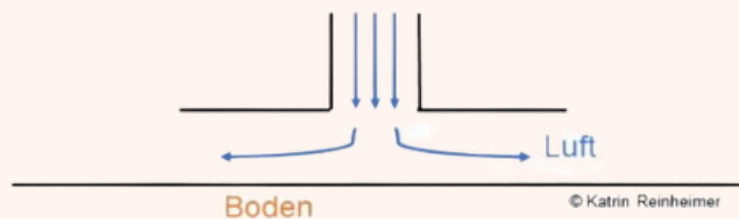


Figure: Air flows from above between the vehicle and the ground, creating an air cushion.

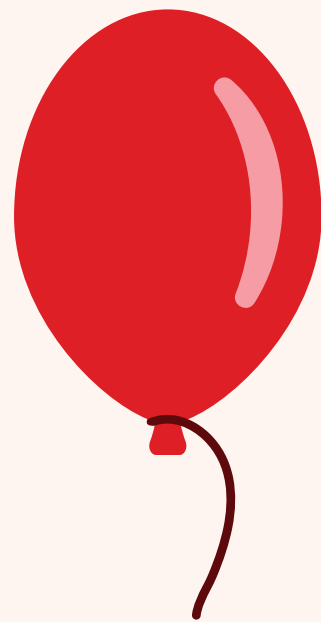
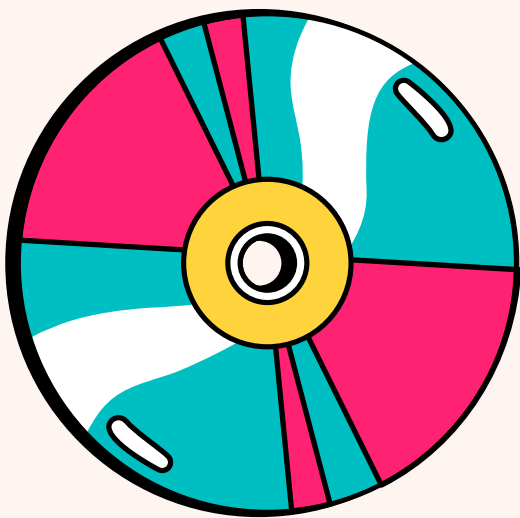
b. Hovercraft

Materials

- Old CD
- Cap from a washing-up liquid bottle (push-pull cap)
- Craft glue (if you want to do it quickly, use a hot glue gun)
- Balloon
- Air pump
- A bag clip
- A smooth surface (table or smooth floor)

Experiment

Experiment with compressed air and explore Newton's third law of motion ('For every action, there is an equal and opposite reaction').



b. Hovercraft

Instruction

1. Apply glue all around the cap of the spray bottle.
2. Attach the cap centrally over the hole in the middle of the CD and wait until the glue has dried. Ensure that there are no gaps in the glue.



3. Inflate the balloon with the air pump. Avoid inflating the balloon with your mouth. You want to reuse the balloon, and your saliva would make it sticky.
4. Close the balloon with the clip, not a knot!
5. Pull the tip of the balloon over the open cap of the rinsing bottle.



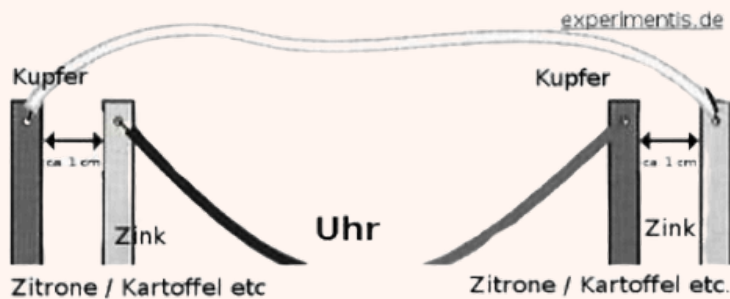
6. Quickly remove the sealing clip.
7. Lift the CD briefly off the floor (it may stick when opened).
8. Give your hovercraft a gentle push and it will whizz across the floor until the balloon is empty.

Note: If you hear a whistling sound when the air flows out, the seal between the CD and the cap is not tight. Simply apply a little craft glue around the edge until it is tight.

c. Light up an LED with a lemon!

Background knowledge

Metals vary in their ability to transfer charge carriers (e.g. electrons) to their environment – some prefer to release charge, while others readily accept it. When two different metals are connected with a conductive material, a voltage is created and charge carriers flow from one metal to the other. If the conductive material is liquid, it is called an electrolyte.



Materials

- 2 lemons
- 2 zinc nails
- 2 copper coins
- 3 wires with crocodile clips
- a red LED



Goal

Can you build the lemon battery so that it lights up the LED?

c. Light up an LED with a lemon!

Instructions

1. Insert one copper and one zinc element into each lemon.

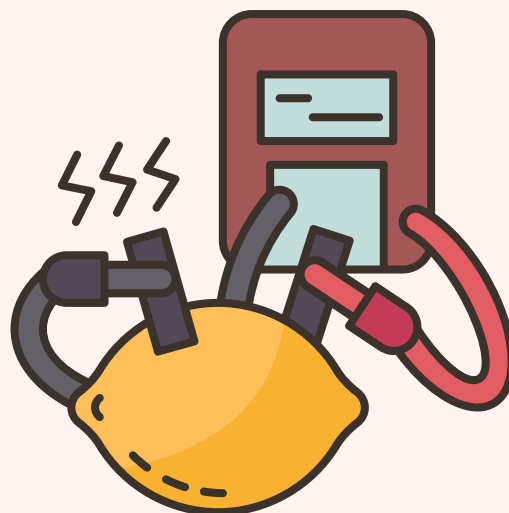
Note: The distance between the two elements should be approximately 1 cm. They must not touch each other!

2. Connect the copper element from one lemon to the zinc element of the other lemon using a wire with crocodile clips.

3. Connect the free zinc element to the negative pole of the LED (short leg) and connect the free copper element to the positive pole of the LED (long leg).

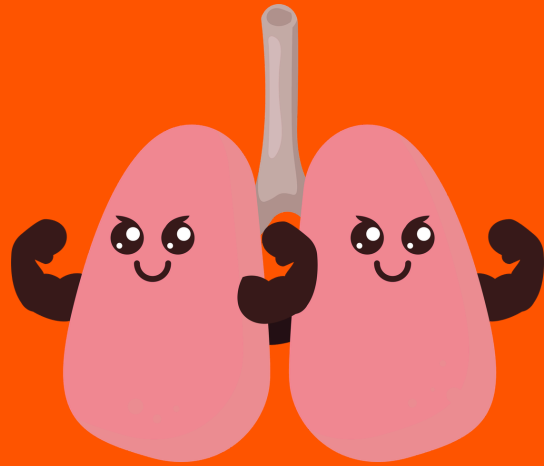
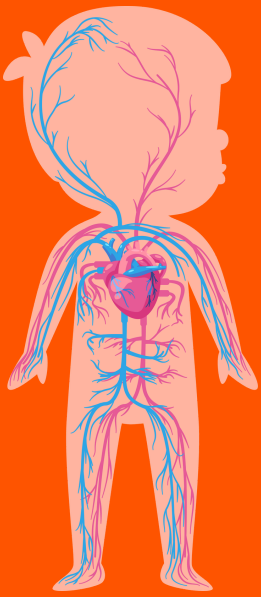
Caution!

After the experiment, the fruit is no longer suitable for consumption!





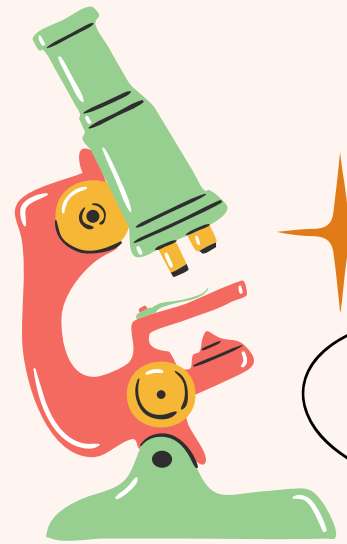
03 BIOLOGY AND MEDICINE



a. From tiny to giant: microscopy

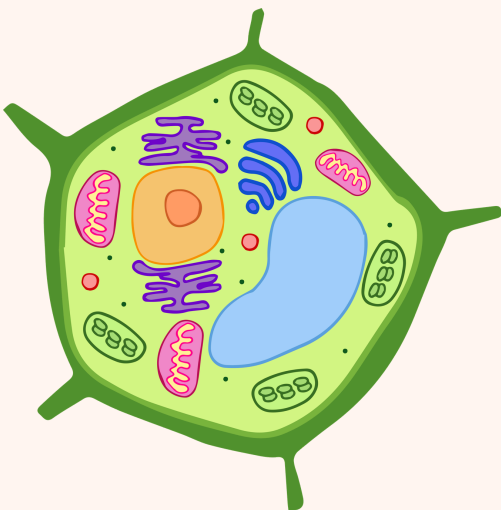
Materials

- Transmission microscope BRESSER junior (40x - 640x magnification) or any other kids microscope
- Ready-made permanent samples (if available)
- Slides and cover glasses
- Tweezers, needle, Pasteur pipettes, containers, Petri dishes
- Water
- Natural samples: Salt crystals, hair, leaf sections, textile fibres, saltwater shrimp (*Artemia salina*)

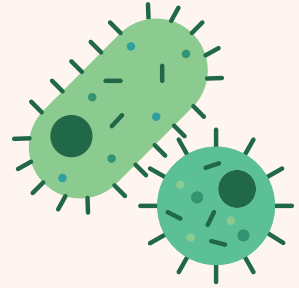


Goal

Prepare a microscope sample and observe it with a transmission microscope at different magnifications.



a. From tiny to giant: microscopy



Instructions

Sample preparation:

1. Place a glass slide on a flat surface (table).
2. Using tweezers, a needle or a pipette, place your specimen in the centre of the slide.
3. (Optional) Depending on the specimen, add a few drops of water using the pipette.

Adjust the microscope:

1. Turn the focus knob all the way up.
2. Set the objective lens to the lowest magnification (4x).
3. Place your slide under the clamps on the stage, directly under the objective lens.
4. Turn on the light.

Looking at the Sample:

1. Look through the eyepiece and focus on your sample by slowly turning the focus knob.
2. Select higher magnifications by turning the objective revolver and selecting a different objective. Make sure that the objective does not touch the sample while focusing.
3. Observe your sample.

Recording (optional if possible with the used microscope):

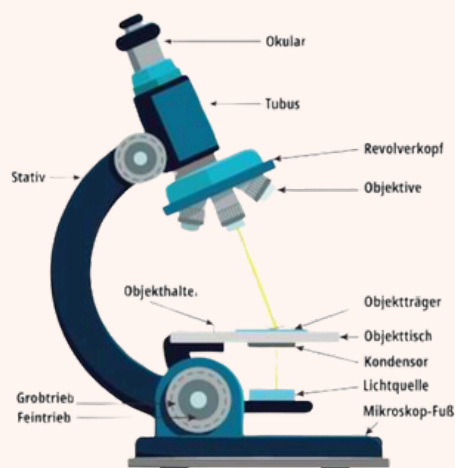
Attach the smartphone adapter to the eyepiece and use your smartphone to take a microscopic image.

a. From tiny to giant: microscopy

Explanation

A microscope offers you the unique opportunity to view your favourite things up close and in detail. With a transmission microscope, you can see through an object because the light shines through it from below. This is particularly suitable for thin leaves, water samples and thin sections of materials.

The microscope consists of two lens systems: the eyepiece and the objective lens. To make it easier to understand, we imagine these systems as a single lens. In reality, however, both the eyepiece and the objective lens in the revolver consist of several lenses. The lower lens (objective lens) magnifies the specimen, creating an enlarged image of it. This image, which you cannot see, is magnified again by the second lens (eyepiece), and then you see the 'microscope image'.



Quellen:

<https://www.bresser.de/c/de/bresser-junior/lukas>

b. How does our cardiovascular system work?

Materials

- Marshmallows
- Toothpicks



Goal

To learn how the heart works so that the body can function. Why does the heart beat faster when you move faster?

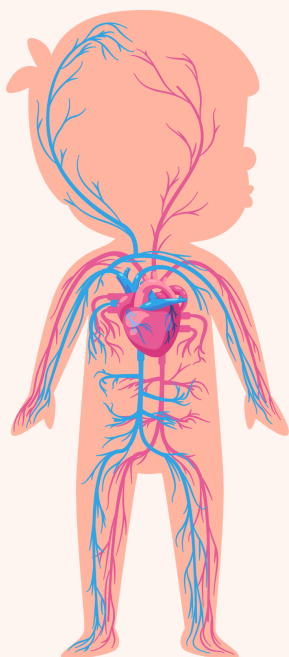
Instructions

1. Stick a toothpick into the marshmallow.
2. Stretch your arm out straight with your palm facing upwards.
3. Place the marshmallow on your wrist.
4. Observe the movement of the toothpick with your pulse.
5. Remove the marshmallow and do jumping jacks for 15 seconds.
6. Then place the marshmallow back on your wrist.
7. Observe how the toothpick moves faster because your pulse is faster.

b. How does our cardiovascular system work?

Explanation

Your heart is very important! Why? Because the heart functions like a pump. It pumps blood, which is full of nutrients and oxygen, to the rest of your body. Your body needs these things to survive and move. When you do physical activities such as jumping jacks, you challenge your body to work harder, especially your muscles. These muscles help you move. Your muscles need oxygen (which is what you breathe in) to move. When your muscles have to work faster and harder, they also need more oxygen. Because your heart pumps oxygen to your muscles, it has to pump faster to bring more oxygen to your muscles so you can move faster and do jumping jacks!

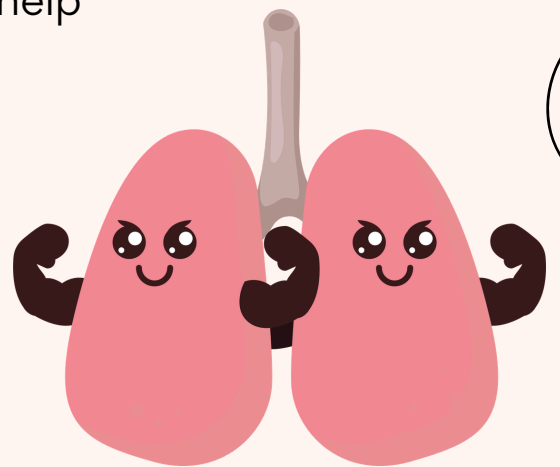


c. Lung model: Breathing – but how?

We breathe quite a lot – adults about 12 to 16 times per minute, children even more often! Have you ever thought about how smoothly this process works? Our lungs enable us to breathe in the oxygen our bodies need, but they do much more than that. They also help us get rid of carbon dioxide, our body's waste product, and play an important role in singing, shouting and even giggling. In this experiment, you will build a model of the lungs and discover how air can flow effortlessly in and out of the lungs.


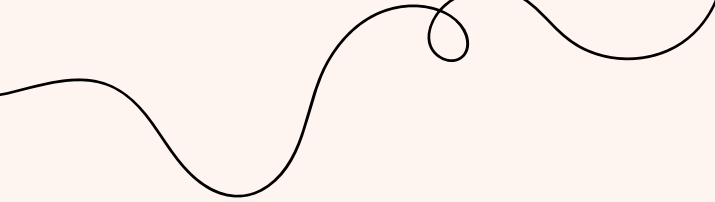
Materials

- Empty transparent disposable bottle made of hard plastic
- Ruler
- Two balloons
- Craft knife (please ask an adult for help and be careful when cutting!)
- Scissors




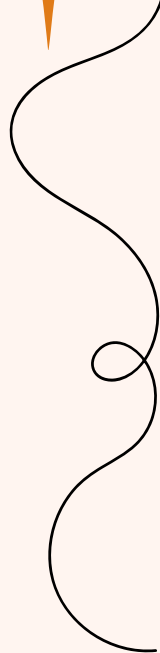
Quellen:

<https://www.sciencebuddies.org/stem-activities/lung-model>



c. Lung model: Breathing – but how?

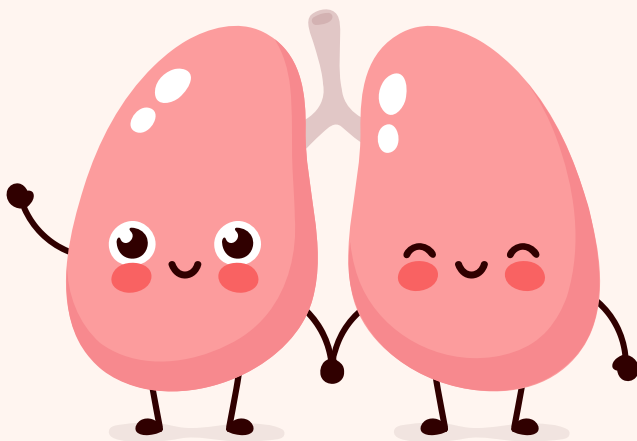
Preparation

1. Ask an adult to cut the plastic bottle. Cut off the bottom of the bottle so that when a balloon is hung inside the bottle by the neck, there is about 1-2 cm of space below the balloon.
 2. Place the cut bottle on the table with the wide opening facing downwards. Lower a balloon into the bottle until only part of the balloon neck protrudes. Fold the neck of the balloon over the top of the bottle. The balloon represents a lung.
 3. Turn the bottle upside down (holding the balloon in place) so that the bottle opening is on the table. In the next steps, you will create and add the diaphragm for your model.
 4. Tie a knot in the neck of the second balloon. Cut off about one-third of the opposite side of this balloon so that you have a wide opening.
 5. Stretch the wide opening of the cut balloon over the wide opening of the bottle. Pull the edges of the balloon up the bottle until the balloon surface is slightly taut. Make sure that the knot is on the outside and close to the centre of the bottle opening.
 6. Similar to an inflated balloon, our lungs are full of air. We have two lungs, which are enclosed by the rib cage and protected by 24 ribs. When you breathe in, air flows into your lungs. When you breathe out, air flows out of your lungs. The balloon in the bottle is like one of your lungs. The bottle is like your rib cage.
- 
- 

c. Lung model: Breathing – but how?

Instructions

1. Hold the bottle so that you can see the balloon inside (which represents the lungs). Carefully pull on the knot. What happens to the balloon in the bottle?
2. Allow the knot to return to its neutral position and then carefully push it in. What happens to the balloon in the bottle now?
3. Repeat these steps several times.
4. If your model is working properly, air will flow into the balloon when you pull the knot outwards and flow out when you push the knot inwards.
5. When we breathe in relaxed, our diaphragm – the muscle that separates the chest cavity from the abdominal cavity – moves to expand and contract the chest cavity.
6. Push and pull the knot a few more times. Which movement of the diaphragm (balloon with the knot) causes inhalation and which causes exhalation?



c. Lung model: Breathing – but how?

Explanation

When you pulled the knot back, the space in the bottle increased and your balloon probably filled with air. In the same way, the chest cavity expands when the diaphragm in our body retracts, air flows into our lungs, and we breathe in. When you pushed the knot in, the space in the bottle decreased and the balloon probably deflated. Similarly, when the diaphragm relaxes, the chest cavity becomes smaller and air is pushed out of the lungs as we breathe out. When you pulled and pressed the knot further, the balloon inflated more and then deflated. This reflects what happens when a larger volume of air is displaced during deeper breathing. The organs in your body that are involved in breathing are collectively referred to as the respiratory system. The lungs are the most important parts of the respiratory system.

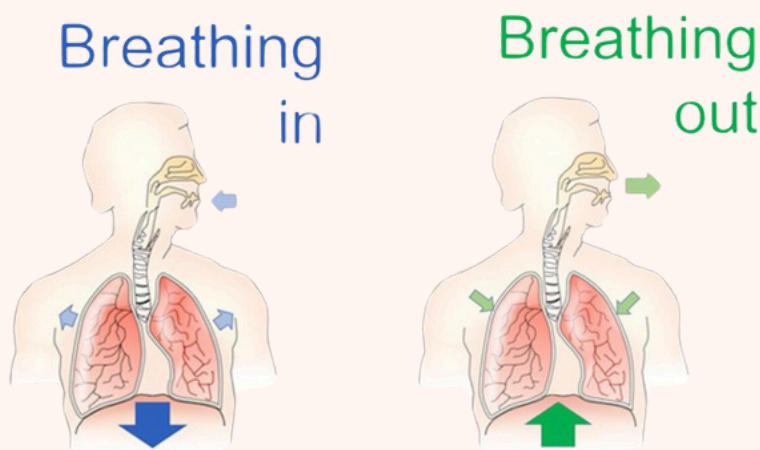


Image Credit: Sabine De Brabandere, Science Buddies / Science Buddies;
Quelle: <https://www.sciencebuddies.org/stem-activities/lung-model>



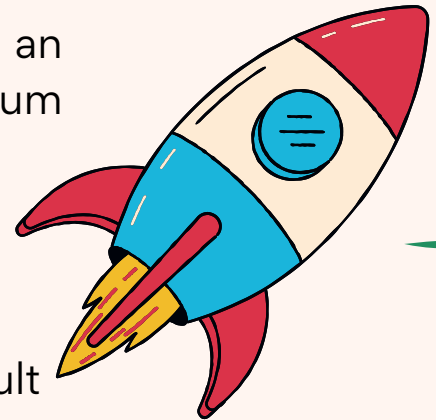
04 ADDITIONAL EXPERIMENTAL FUN



a. Let's build a vinegar rocket!

Materials

- An empty film canister, or alternatively, an effervescent tablet tube or a chewing gum tin
- Vinegar or vinegar essence
- Baking powder or bicarbonate of soda
- An open space outdoors
- For small children: assistance from an adult



Warning


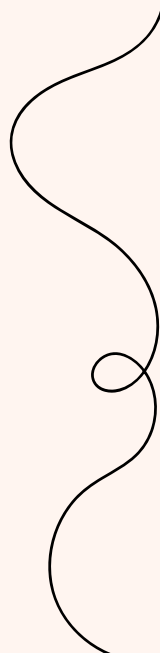
- Do not launch rockets indoors, only outdoors!
- Do not aim at yourself or other people, as you could injure yourself or others.
- Never hold the rocket in your hand to launch it and make sure you have a clear area where you cannot damage anything with your rocket.
- Keep a distance of at least one meter and wear safety goggles if you have them





a. Let's build a vinegar rocket!

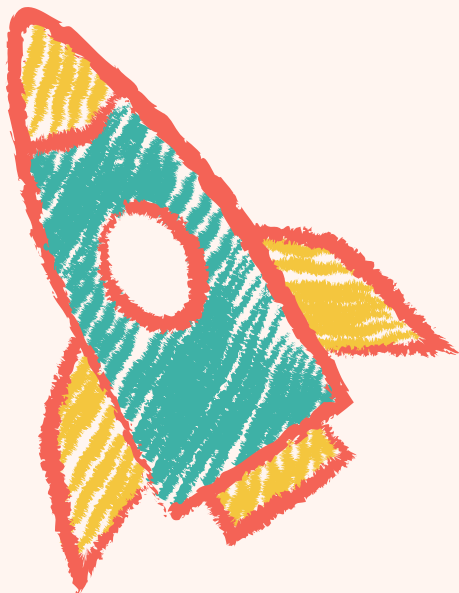
Instructions

1. Make sure that the inside of your film can is clean and dry. If you wish, you can glue a rocket tip (can base) and wings to your can and paint it however you like. Make sure that the lid of the can remains free and is not stuck down by the wings, for example; it must be able to open and close properly.
 2. Filling and launching the rocket:
 - Fill your rocket with 1-2 teaspoons of baking powder.
 - Add about a tablespoon of vinegar and quickly close the can with the lid.
 - Shake it again briefly, place it at the launch site with the lid facing downwards and quickly get yourself to safety.
 3. Watch the vinegar rocket take off! The baking powder and vinegar react with each other and produce carbon dioxide gas, which pushes the film canister upwards and shoots it into the air like a rocket.
 4. Repeat the experiment with different amounts of vinegar and baking powder to see how the rocket's flight changes.
- 
- 

a. Let's build a vinegar rocket!

Explanation

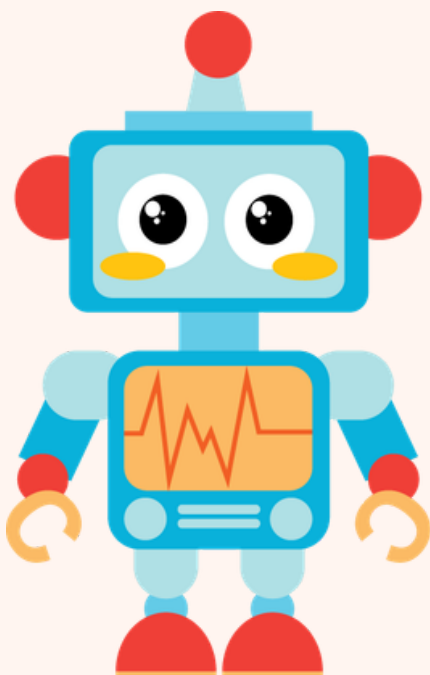
When baking powder is mixed with vinegar, a chemical reaction occurs. Baking powder contains a substance called sodium bicarbonate (baking soda is pure sodium bicarbonate), which reacts with the acetic acid in vinegar. This reaction produces carbon dioxide gas (CO_2). As a large amount of gas is released very suddenly during the reaction, which cannot fit into the small tin, high pressure builds up, causing the lid to fly off and propelling the 'rocket' away.



b. Build your own toothbrush robot!

Materials

- Inexpensive or used manual toothbrush
- Mini vibration motor
- Strong double-sided adhesive tape
- 3V button battery
- Googly eyes
- Scissors
- Wire strippers
- Cutting pliers (or something to cut off the head of the toothbrush)
- Pipe cleaners (optional)



b. Build your own toothbrush robot!



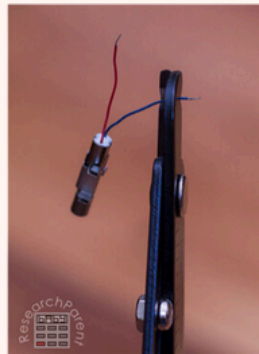
Instructions (Images von researchparent.com)



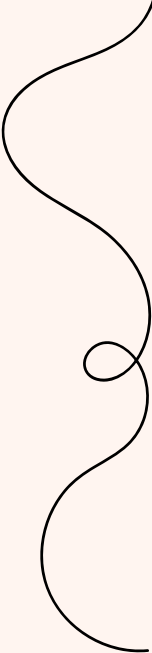
- Cut off the top part of the toothbrush with scissors.



- Use the wire strippers to strip about 0.5 cm of wire from each of the cables coming from the motor.



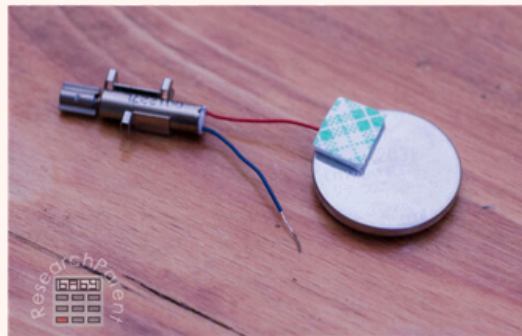
- Cut a piece of adhesive tape that is slightly smaller than a googly eye.



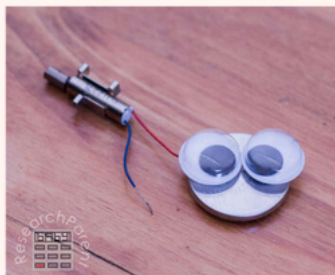
b. Build your own toothbrush robot!

Instructions (continued)

- 1. Stick one of the motor cables with the sticky side to the front of the battery where you want to attach the eyelet.



- Check that the connection is working properly by touching the other side of the battery with the other wire – the motor should start to turn.
- Remove the protective film and stick on an eyelet.
- Stick on another piece of tape for the second eyelet (without placing a wire under this side).



- Attach the motor to the top of the toothbrush with adhesive tape. Make sure you do not cover the rotating part of the motor with tape.



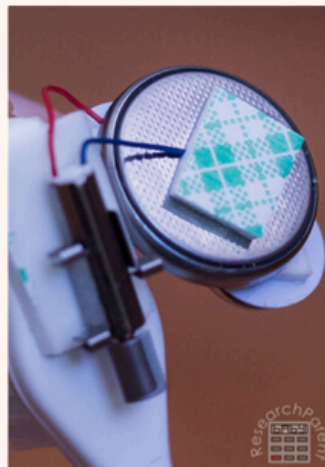
b. Build your own toothbrush robot!

Instructions (continued)

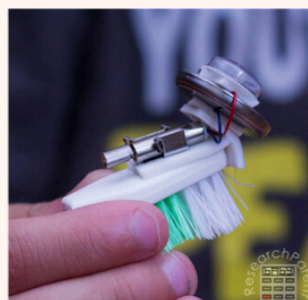
- Stick another piece of tape onto the non-rotating end of the motor and the front of the toothbrush. Remove the protective film.



- Use another piece of tape to attach the second wire to the opposite side of the battery. Note that the motor will start to rotate at this point.



- Remove the protective film from the adhesive tape on the battery and attach it to the adhesive tape on the motor.



b. Build your own toothbrush robot!

Tips for better stability

1. Use your fingers to spread out the bristles.
2. Stick the pipe cleaners onto the toothbrush head between the motor and the battery to give your robot a pair of feet. Fold the pipe cleaners down along the edges of the toothbrush head so that it stays firmly on the flat top.



Experiment with the placement of the motor on the toothbrush

- If it is turned too far in one direction, the bot will tip over because it is too heavy on one side.
- If it goes too far in the other direction, it will spin so fast that it will also tip over.

c. Build a Winogradsky column – treasure hunt in the soil!


Materialien

- A transparent plastic container, a large plastic bottle or a glass bottle with a wide opening
- Mud or soil from a pond or garden
- Crushed eggshells or limestone
- Ground plasterboard (optional)
- Iron nails, copper shavings, other metal scraps (optional)
- Water
- A spoon or small shovel
- Some crushed plant material such as leaves or grass (optional)



Goal

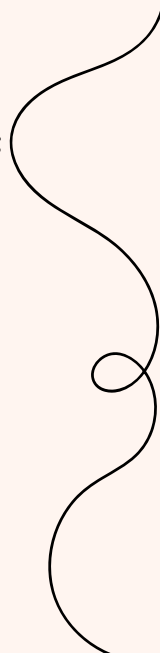
Our soil is home to many different tiny helpers, microorganisms that help keep the soil healthy and plants growing well. A Winogradsky column is an ideal opportunity to explore the diversity of microorganisms. If the nutrients used are varied or different sources of mud or soil are used, the resulting differences between the columns can be investigated.



c. Build a Winogradsky column – treasure hunt in the soil!



Anleitung

1. Fill your container about halfway with mud or soil. The mud should be moist, but not too wet.
 2. Add the ingredients: Sprinkle a layer of crushed eggshells or limestone on top of the mud. If you like, you can also add a layer of ground plasterboard to provide additional nutrients.
 - i. Optional: Sprinkle some crushed plant material such as leaves or grass on top of the layer.
 - ii. Optional: Add an iron nail or copper shavings, if available, to create particularly beautiful colours in the column.
 3. Slowly pour water over the ingredients in the container until the mud is moist and the water reaches the top layer.
 4. Seal the plastic container with a lid or foil to ensure that no foreign substances can enter.
 5. Place the Winogradsky column in a warm place with indirect light, e.g. near a window or on the balcony in summer.
 6. Observe the column over the next few weeks and months. You will see how different microorganisms develop in the mud and how the layers change over time. You will be able to see many different colours, depending on which microorganisms were present in the mud you used.
- 



SCIENCE IS FOR
EVERYONE!