Air
Luft
Hava
Aria

Experiment	
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Name:

Air	Experiment 1

Paper Parachute

What do you need?

- a paper towel
- paper-clips
- thin thread
- scissors
- tape

1. Cut **four pieces from the thread of the same length** (Each piece about 25 cm).
2. Roll the corners of the towel between thumb and index finger.
3. Stick a thread with tape to each corner of the paper towel.
4. Knot the four threads together. Make sure that everyone has the same distance to the paper towel. Hang papier-clips at the knot.
5. Now you can let drop the parachute.
6. If you climb on a chair, the parachute will drop for longer

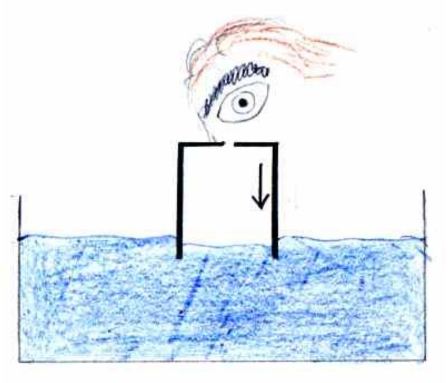
Air	Experiment 2

You can feel the air

You can't see the air, but you can feel it.

What do you need?

- Bowl of water
- Plastic yoghurt pot with hole in the bottom

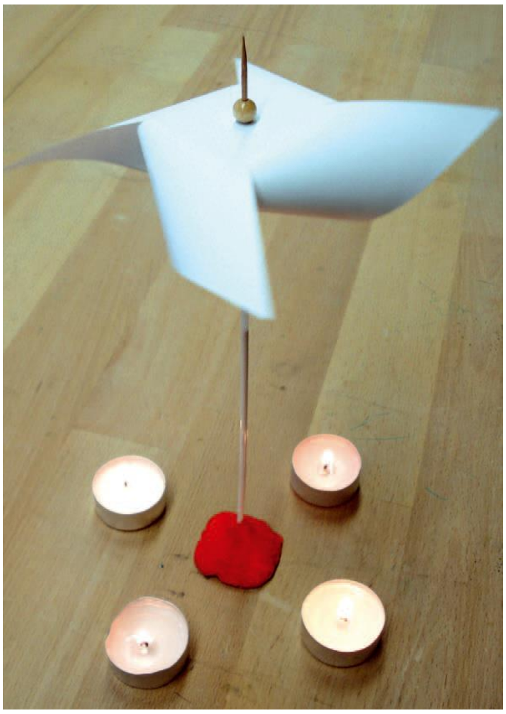


Hold the pot with the upside down over the water.
Then push the can slowly into the water.

You must keep an opened eye just above the hole in the pot's bottom.

Can you feel anything?
Can you explain that?

Air | Experiment 3



Thermal wheel

What do you need:

- a piece of paper
- a drinking straw
- a toothpick
- two wooden beads to put on the toothpick
- scissors
- 3 - 5 tea lights
- plasticine

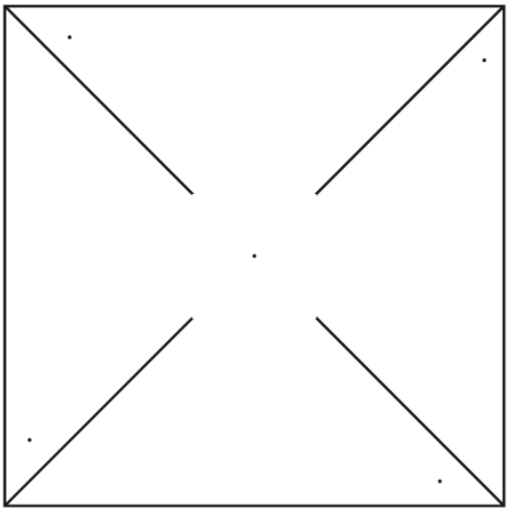
Make a wind turbine. Take the papier with template and instruction.

Put a wooden bead on the toothpick then the paper (wind turbine) and last second wooden bead. Check if the turbine can turn.

Form a stand with the plasticine and put in the drinking straw. Now you can put the toothstick with the wind turbine in the drinking straw.

Now you can light the candles and place them under the wind turbine.

Can you describe what happens? Why?

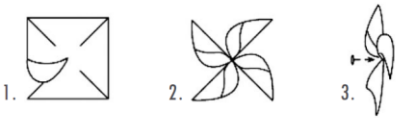


Cut out the square

Make small holes into the points of the square.

Cut the diagonals.

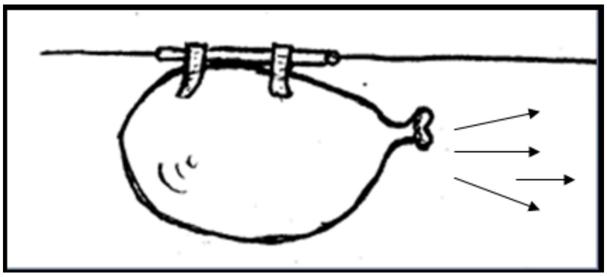
Now you can build the turbine.



Air rocket

What do you need?

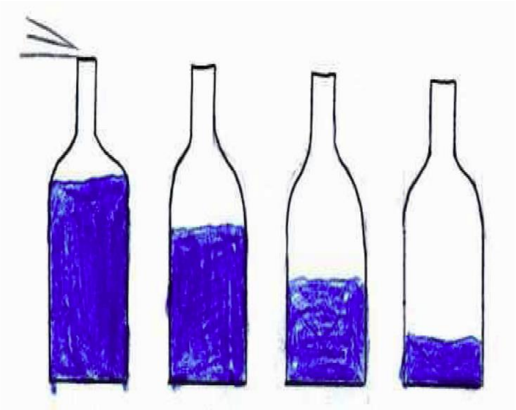
- string (about 6m)
- a drinking straw (8 cm)
- a balloon
- scissors
- tape



1. Tie one end of string end to a window handle or hook.
2. Thread the string through the drinking straw.
3. Blow up the balloon.
4. Keep the opening of the balloon closed.
5. Stick the drinking straw to the balloon with the tape.
6. Pull the string tight.
7. Let the balloon go.

Air	Experiment 5

We make sounds



What you need:

- some bottles
- water

1. Fill two bottles differently high with water.
2. Blow over the bottle openings to make a sound.
3. With which bottle you can create a high sound, with which a deep sound.
4. Can you fill several bottles so that you can play a little melody?

How are the different sounds made?

Air	Experiment 6

What happens when you blow the bottle?

Material:

- a bottle
- tea light
- box of matches

1. Place the tealight behind the bottle.

2. Light the small candle.

3. Blow on the opposite side of the bottle.

What happens?

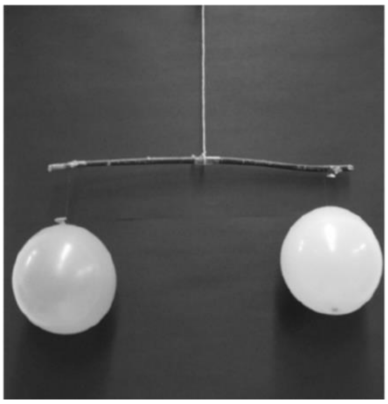
Air

Experiment 7

Has air a weight?

Material:

- a wooden stick
- two ballons
- string
- tape



Blow up two balloons and fix them to the two ends of the stick with string.

Put some tape on one of the two balloons.

Hang the wooden stick on a hook and balance it.

Now stick a needle through the tape into on balloon.
The tape prevents the balloon from bursting and makes that air escape slowly.

What can you see?

Air	Experiment 8

Trick with a postcard

Was brauchst du:

- Drinking glass
- water
- postcard
- plastic tub

Fill a glass with water.

Put a postcard on the glass.

Hold the postcard with the flat hand and turn the glass. Turn over the over the plastic tub.

What happens?

Air

Experiment 9

Teabag rocket

- warm and cold air

What do you need?

- teabag
- matches

1. Cut the top of the tea bag and empty the bag.
2. Open the teabag apart.
3. Put the tube carefully on a fire-resistant base.
4. Now light the top of the teabag.

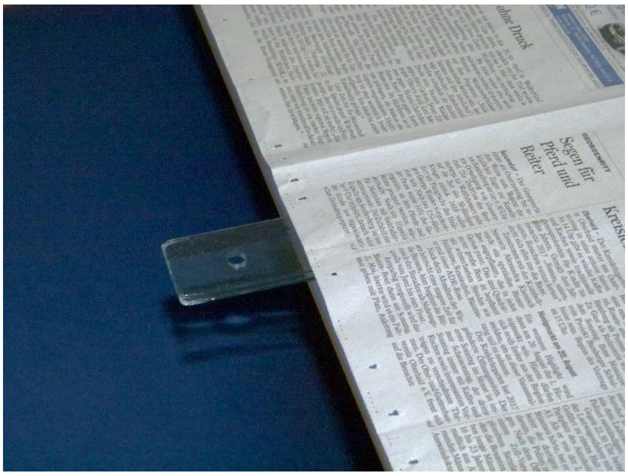
What happens? Can you explain it?

Air	Experiment 10

The heavy newspaper

What you need:

- a long thin board or a long ruler
- a newspaper



1. Place the ruler on the table so that it protrudes about 5 cm.

2. Place a newspaper on the ruler on the table.

3. Press briefly and slightly with your thumb on the protruding part of the ruler.

Can you describe what happens? Why?

Air	Experiment 11

The tricky funnel

What you need:

- a bottle
- a funnel
- plasticine
- a drinking straw
- water

1. Insert the funnel into the bottle opening.

2. Seal the bottle head airtight with plasticine.

3. Fill water quickly into the bottle over the funnel.

What do you notice? Explain!

Raise a treasure without getting wet

What you need:

- a glass
- a plastic tub
- a jellybaby
- a cup of a tealight
- a coin
- water

1. Fill water in the plastic tub and put the coin into water.
2. Put the jellybaby into the cup of tealight and place it carefully on the water surface.
3. Now see if you can raise the coin. You also can use the glass. Attention: The jellybaby must not get wet.

Describe how the jellybaby stays dry and gets coin. Explain!

Air

Experiment 13

Filling a glass with air

Can you show how to fill air from one glass to another?

What you need:

- a plastic tub
- 2 glasses

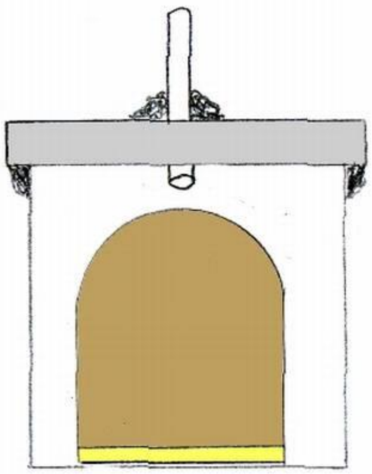
1. Fill water into the plastic tub.
2. Place a glass in the tub so that it completely fills with water.
3. Pull this glass carefully upwards with the mouth down until only the edge is in the water. Hold the glass.
4. Now press the second glass vertically into the water. No water may enter the glass.
5. Now push the second glass carefully under the opening of the first glass and tilt it slowly.

Air	Experiment 14

Can you remove the wooden rocket from the cylinder without touching the construction?

Explain how it works!

The cracked chokolade marshmallow



What you need:

- jam glass with hole in lid
- drinking straw
  (or a plastic tube and syringe)
- chocolate marshmallow
- plasticine

1. Put a straw through the hole in the lid.
2. Tighten the straw (or tube) with a ring of plasticine.
3. Put the chocolate into jam jar.
4. Screw the lid tight. The straw (tube) must not touch the chocolate.
5. Now draw air from the jar with the straw.
   (Attach the syringe to the tube.)

What happens? Can you describe it.