

## The power of God



A PET bottle is filled with hot water, emptied and quickly screwed shut. It soon contracts, although no external force is visible. The experiment can illustrate the invisible power of God.

## Material

- Empty pet bottle with lid (possibly tin container with screw cap)
- Hot water (ideally approx. 70-80°C)

## Experiment

An empty PET bottle is filled with hot water. It is best to use water that has been heated to approx. 70-80 °C in a kettle. Hot tap water is also possible, but gives a less impressive effect. If the water is freshly boiled, the PET can melt and the experiment will fail. The bottle is quickly emptied and immediately screwed shut. With a tin container, it is best to use freshly boiled water.

Observe carefully what happens.

The volume of the air becomes smaller when it cools down, so the container is compressed by the air pressure from the outside.

A similar effect is observed if you close an empty pet bottle tightly when skiing at the top of the ski area. Once you reach the bottom, you can see the effect of the increased air pressure.

## Biblical interpretation:

The invisible power is made visible. Various passages can fit in with this. Example:

*Romans 1:20: God's invisible nature - that is, his eternal power and divinity - has been seen in his works since the creation of the world, if we can perceive it*

*2. 1 Corinthians 4:18: To us who do not look at the things which are seen, but at the things which are not seen. For the things which are seen are temporal, but the things which are unseen are eternal.*

**Keywords:**

Physical experiments, water, power of God, air pressure, physics, chemistry, chemical experiments

**Proof of source**

Cover picture: Markus Sigrist

Game idea: With the kind permission of BESJ (Bund Evangelischer Schweizer Jungscharen), slightly modified by Markus Sigrist