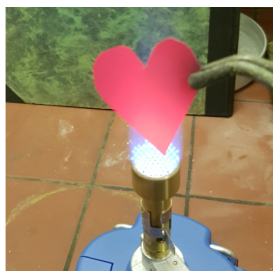


## The pure heart



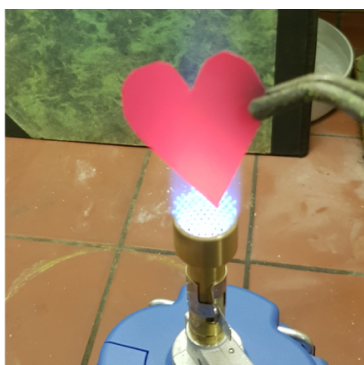
A piece of copper turns black when it glows in the flame. If the hot black piece of copper is immersed in alcohol, it becomes copper-colored again. This can be used to illustrate the confession of sins and the cleansing of guilt.

## Material

- Bunsen burner
- Lighter
- Pliers
- Copper piece (preferably heart-shaped), available from DIY stores or plumbers, can be cut to size yourself afterwards (punching, special saw, etc.)
- Methylated spirit
- Glass jar

## Carrying out the experiment

1. (possibly without children beforehand) Oxidize the copper heart: Heat the piece of copper strongly for a few minutes. When cooled, the piece of copper is now black.
2. The heart is black and dirty. But it cannot be cleaned, neither with a brush nor a sponge..
3. The copper heart is heated again until it glows slightly.
4. The copper heart (still glowing) is completely immersed in the bowl filled with methylated spirits. Be careful, the methylated spirit and the Bunsen burner must always be kept at a distance.
5. The heart now shines golden again - or rather coppery and is pure again.



The copper heart is annealed in the flame of the Bunsen burner



The copper heart has turned black



The hot heart is cleaned in methylated spirits



The purified heart

## **Biblical statement:**

Confess sins, cleanse from guilt, tidy up your life

## **Possible Bible passages**

1. John 1:9: If we confess our sins, he is faithful and just to forgive us our sins and to cleanse us from all unrighteousness

Psalms 51:12: Create in me, O God, a clean heart and give me a new and holy spirit

Isaiah 1, 16-17a: Wash yourselves, cleanse yourselves, put away your evil deeds out of my sight! Stop doing evil and learn to do good.

Many other Bible passages on the subject of confessing and forsaking sins, cleansing from sins, etc. are possible applications.

## **Keywords:**

Chemical experiments, chemistry, experiments, flame, cleansing of sins, forgiveness, heart

## **Source reference**

Cover picture: Markus Sigrist

Game idea: With the kind permission of BESJ (Bund Evangelischer Schweizer Jungscharen), with slight modifications Markus Sigrist