

## A plate with water, pepper and liquid soap



If pepper is sprinkled on the water, it remains on the surface. If liquid soap is added, it is pushed to the edge, further added pepper sinks. This can be used to illustrate deliverance from sin or Peter sinking.

### Material

- Bowl or soup plate with water
- Pepper (black if possible)
- Washing-up liquid or liquid soap

### Experiment:

1. Fill a light-colored bowl with water and sprinkle some pepper on top. Most of the pepper will remain on the surface due to the surface tension.
2. Dissolve some liquid soap or washing-up liquid in a little water and pour the solution into the bowl. The pepper will be pushed to the edge. You can also use your finger to apply a little washing-up liquid directly to the surface of the water; the effect is the same.
3. Add more pepper to the liquid. It will quickly sink to the bottom.



Before adding the liquid soap, the pepper remains on the surface of the water



If liquid soap is now added, the pepper is pushed to the edge



If pepper is sprinkled on the surface again, it sinks immediately

## Biblical interpretation:

The plate is our body, the water is the soul and the pepper is sin.

When Jesus comes into our lives, sin has to go, it is pushed away.

After the soap has done its job, pepper can be put on the water again, it sinks quickly. Sin no longer has any power over us.

*Rom 6:18: For now that you have been set free from sin, you have become servants of righteousness.*

*Rom 6:23: For the wages of sin is death, but the gift of God is eternal life in Christ Jesus our Lord.*

*1.1 Peter 2:24: He himself bore our sins in his body on the tree, so that we might be freed from sin and live for righteousness. By his wounds you have been healed.*

## **Second possible biblical interpretation (do not offer it at the same time as the first interpretation, otherwise there will be confusion)**

Story of Peter sinking (Matthew 14, 22 - 33)

- Peter is able to walk on water after he has seen that Jesus can do this and has put his full trust in him.

- The liquid soap is fear or the devil who wants to scare us. When the fear comes, Peter begins to sink and needs help.

## Physical explanation:

Water has a surface tension, the soap breaks this and this is how these effects occur.

A water strider would therefore drown if soap were added to the pond.

<https://de.wikipedia.org/wiki/Oberflächenspannung>

## Keywords:

Chemistry, physics, water, pepper, surface tension, chemical experiments, physical 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

After adding the liquid soap, the pepper sinks to the bottom or to the edge of the plate