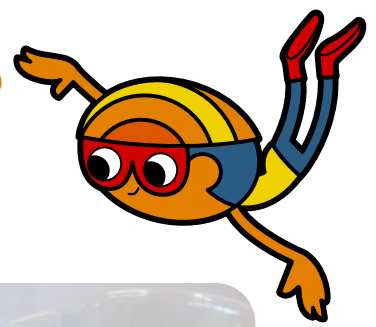


# Potato starch



# How do you get the starch out of a potato?

Isolate starch from potatoes yourself



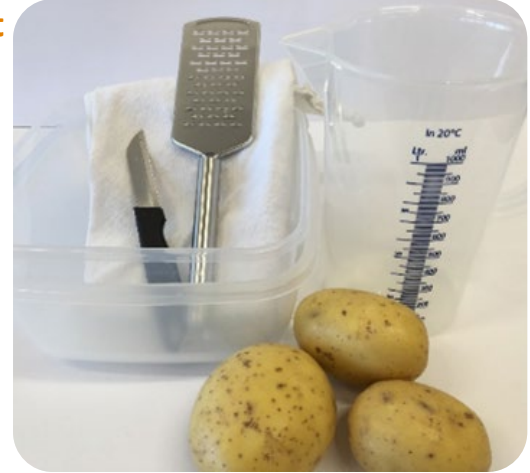
## The research question

You can buy potato starch from the grocery store. It is a white powder that has similar properties to flour, so it can be used to thicken sauces, for example. Or you can make a simple glue out of it.

The name "potato starch" already tells you that the starch comes from potatoes. **But how do you get the starch out of the potatoes?**

## What you need for your experiment

- 4-5 medium-sized potatoes
- 1 grater
- 2 plastic bowls
- 1 tea towel
- 1 refractory dish, e.g. small casserole dish



Materials



# How to do it

## Step by step



### Peel and grate

Peel the potatoes and grate them with the grater into a plastic bowl



### Mix with water

Add 300 ml water to the grated potatoes and stir the mixture for 5 minutes with a tablespoon



### Filter

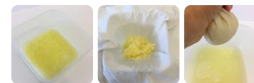
Place a kitchen towel over a second plastic bowl and pour the grated potatoes and water over the towel in the second bowl



### Collect the juice

Use the cloth to wring the grated potatoes over the bowl and collect the juice in it.

Pour the squeezed potato mixture back into the first bowl.



### Repeat

Repeat steps 2-4, only this time with 200 mL of water.

After squeezing, leave the squeezed juice to stand for 5-10 minutes until the starch settles at the bottom.



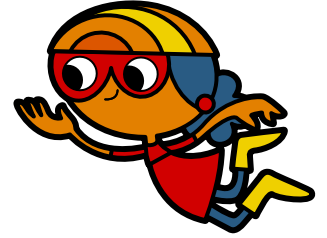
### Drain the water

Slowly and carefully pour the juice into the sink. Make sure that the starch sticks to the bottom of the plastic bowl. Scrape the starch into an ovenproof dish and dry it in the oven at 50°C.



# Additional information

For parents and teachers



## Context

Within the Forscherwelt teaching units “Adhesives” and “Sustainability”, children learn that potatoes contain starch. Potato starch can be used as a raw material for a simple glue. But the question is: How do I get the starch out of the potatoes? And how do I get a nice white starch powder?

## Starch

Starch is a natural macromolecule made up of glucose units and is therefore a carbohydrate. In plants, it serves as an energy store and is normally present in so-called starch grains. Starch is insoluble in cold water and can be washed out of the crushed plants with cold water.

