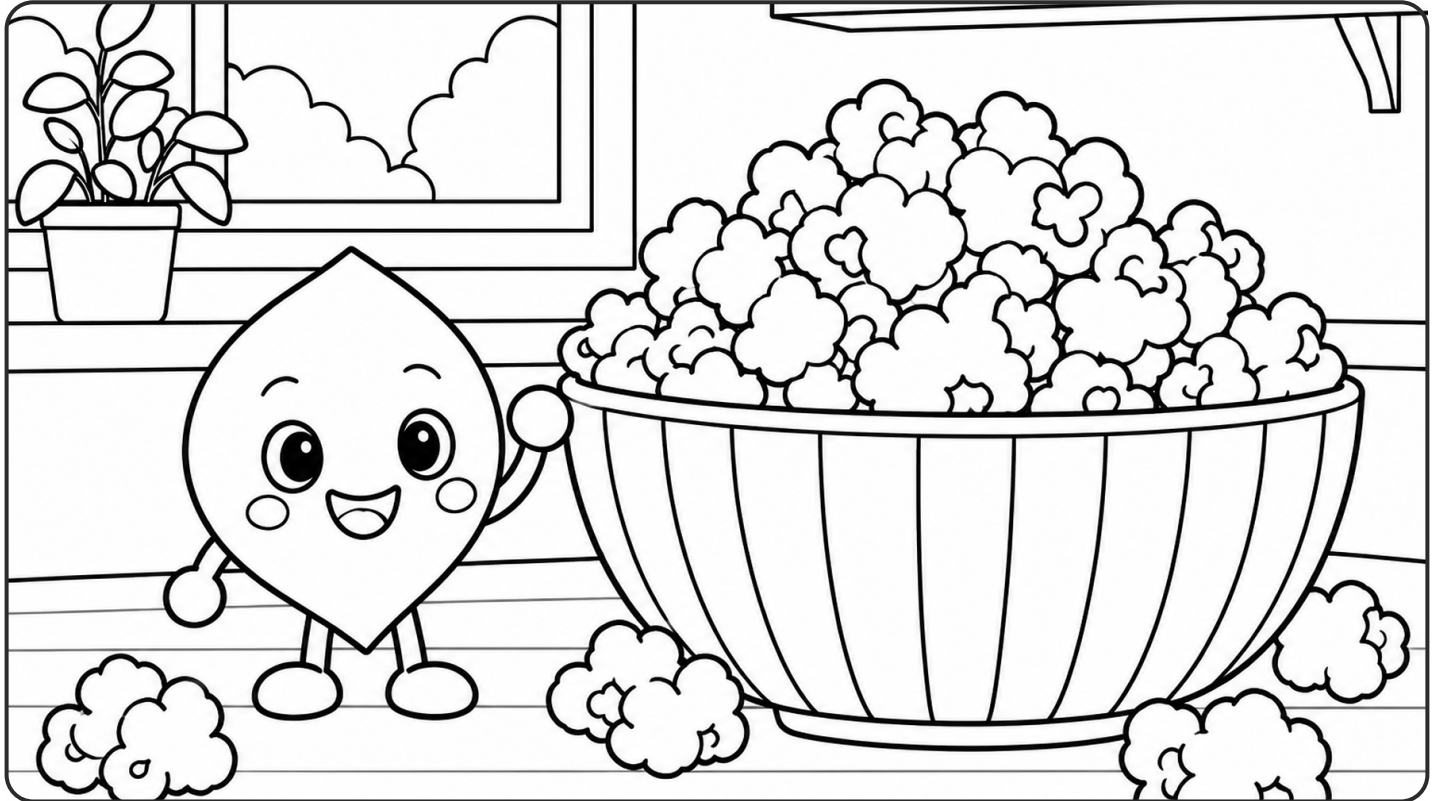


Why does popcorn pop?



A popcorn kernel is small, hard and yellow. But heat it up, and pop! It turns into a big, white, fluffy puff. Why?



Why?

1. Inside the hard shell there is starch, and a tiny bit of water.

The shell is called the hull. It is strong and tight, with no holes at all.

2. Heat turns the water into steam, and steam needs much more room.

It pushes on the shell from the inside, harder and harder, like blowing more and more air into a balloon. The hot steam also makes the starch soft and gooey, like hot jelly.

3. Pop! The shell bursts and the steam rushes out.

That is the sound you hear. The soft starch puffs up like foam, cools in a blink, and turns dry and crunchy. The kernel is turned inside out and many times bigger.

Try it! The spoon test

You need: popcorn kernels, a spoon, and a grown-up to do the popping

1. Before you pop your popcorn, put ten kernels in a spoon.
2. After it pops, pick out ten pieces. Do they still fit in the spoon?
3. Look closely at one piece. Can you find the little bits of brown shell?

What happened? The brown bits are the hull that burst open. The white fluff is the starch that puffed up.

Video + more questions:
whywhywhykids.com/popcorn



scan with a grown-up