

Why Does Popcorn Pop?

There are three types of corn; sweet corn, field corn and popcorn. The scientific name for popcorn is *zea mays everta*, and it is the only type of corn that “pops”. Popcorn pops because each kernel contains a little water. When the kernel is heated, the water turns to steam. The shells of sweet corn and field corn are water-permeable, so when those kernels are heated the steam simply escapes. But the shell of popcorn is not water permeable. Since the steam cannot escape, pressure builds inside the kernel until it eventually explodes, turning inside out. Popcorn usually has to reach a temperature of 347 degrees Fahrenheit (175 degrees Celsius) in order to pop. Popcorn pops into one of two shapes: either a snowflake or a mushroom. You are probably most accustomed to the snowflake shape, which is used by movie theaters because it is bigger. Treats like caramel corn are usually made from mushroom-shaped corn because it doesn’t crumble.



1. List the different types of corn.

2. How does *zea mays everta* differ from the other types of corn?

3. Explain what happens to popcorn when it is heated.

4. What shape of popcorn are you most likely to eat when you go to the movie theatre?
