

# WHICH POPULAR KELLOGG'S CEREAL GETS SOGGY THE FASTEST?



## Aim

The aim of this experiment is to determine which popular Kellogg's cereal becomes soggy the fastest when placed in  $\frac{1}{2}$  cup of milk. To ensure a fair test, the same type of bowl, amount of milk, and environmental conditions will be used for each cereal sample. This investigation will help identify which cereal maintains its texture the longest when exposed to milk.

## Definition

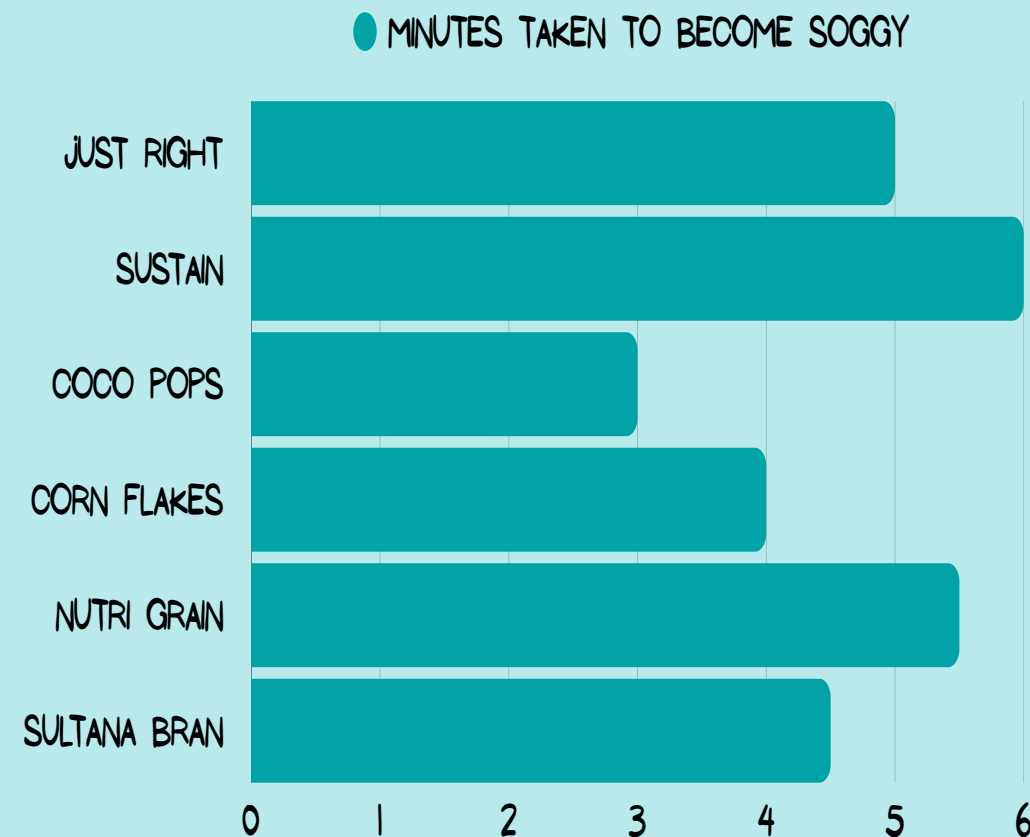
You can tell cereal is soggy by its lack of crunch, its mushy texture when you bite into it, and its ability to be easily mashed against the roof of your mouth.

## Hypothesis

Cereal gets soggy because it absorbs milk, which breaks down the starches and porous structure that make it crunchy. As the cereal sits in milk, the liquid penetrates the cereal's small pockets, causing the starch inside to swell and the overall structure to soften and lose its crispness over time. Knowing this, we hypothesise that the cereals with the thin flaky structures will absorb milk the fastest as the starch swells and breaks down the crispy texture, leading to sogginess. Therefore the cereal we believe will get soggy the fastest is Corn Flakes.

## Method

- Step 1. Open each packet at the same time
  - Step 2. Pour 125 mL into a small bowl along with the cereals using a measuring jug.
  - Step 3. Wait 1 min and 30sec before taking a piece out of each bowl and checking the level of density, every minute and a half after that, we will test again.
  - Step 4. Every time a cereal turns soggy, record the results.
- To make the experiment fair, we will make sure not to have multiple people taste the cereal because everyone is different so the data would change.



## Materials

Just right cereal, Sustain cereal, Coco pops cereal, Corn flakes cereal, Nutri Grain cereal, Sultana bran cereal, Full cream milk A2, bowls, timer/watch, sticky notes, pen, measuring cup, cups.

## Discussion

After our experiment we observed a few interesting things. Our hypothesis was incorrect as Coco Pops got soggy faster than other Kellogg's cereals. We think this is because they are made of a puffed rice that is less dense and more porous than other cereals. Due to this, the coco pops got soggy after only 3 minutes. We also noticed that the two cereals that went soggy the quickest had the lowest protein whilst the two that lasted the longest was on the higher side of protein.

## Limitations

Some of our limitations include that because we wanted to test all six cereals simultaneously, different group members were assigned to observe and record results at the designated time intervals. This introduced a limitation to the experiment, as individual differences in observation and timing accuracy could have affected the consistency and reliability of the results.

## Conclusion

From our experiment, we found out that Coco Pops gets soggy the fastest in milk. We discovered that our hypothesis was incorrect, however we succeeded in our experiment to discover which cereal became soggy the fastest.

## Photos

