CORNY EXPERIMENT

Explanation

All seeds contain a tiny bit of water whose job is to keep cells alive until sprouting. This small amount of moisture makes the popping of popcorn possible. When a kernel of popcorn is heated, the water inside becomes a gas (steam) that exerts a strong enough pressure to burst the seed covering. The expansion of the gas allows the soft material from the kernel to puff. This experiment is designed to determine if the amount of water in the kernel affects the popping ability of the seed.

Materials & Equipment

- Fresh popping corn
- Shallow pan
- Pot with cover
- Tablespoon
- Measuring cup
- A six inch ruler
- Pencil and paper
- Oven
- Corn oil

Procedure*

Preheat your oven to 200 degrees F. Count the number of kernels in ¼ cup of popcorn. Spread the corn in a single layer in the shallow pan and bake in your preheated oven for approximately 90 minutes. Next, count out the same number of kernels. Place three tablespoons of corn oil in the pot. Heat the oil until it starts to smoke. Carefully add your second amount of popcorn (not the popcorn baked in the oven). Cover and shake over reduced heat until popping stops. Remove the popcorn from the heat. Count the number of unpopped kernels. Measure the longest side of 20 popped kernels with your ruler. Record all your figures and average your findings. (Sum of all measurements divided by 20 kernels measured equals the average per kernel.)

Remove your first batch of popcorn from the oven after 90 minutes. When the kernels have cooled, pop them in the same way you did your second batch. Again count the number of unpopped kernels and measure 20 of the popped kernels. Record and average your figures.

Now the best part . . .
Eat and enjoy the popcorn!

**Parental or teacher supervision is recommended!*