



# DANCING KERNELS-SCIENCE RECIPE

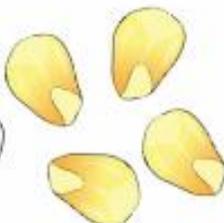
## Ingredients & Supplies:



1-tall jar/glass, a spoon, and a tray



1 cup water



Small handful of popcorn kernels



2 tsp. baking soda



1/2 cup vinegar (as needed)

## Instructions:

**Step 1:**  
Place your jar inside a tray.



**Step 2:**  
Pour your water into the jar.



**Step 3:**  
Pour your baking soda into the water and mix until it's dissolved.



**Step 4:**  
Pour your popcorn kernels into the jar.



**Step 5:**  
Slowly pour your vinegar into the jar.



# DANCING KERNELS-RECORDING FORM

Name: \_\_\_\_\_

What do you think will happen to the kernels?



Draw what you think will happen..



Draw what you observed...



Describe what you observed ...



I saw:



I heard:



I smelled:

## What is happening?

When an acid found in the vinegar (acetic acid) is combined with a the baking soda base (sodium bicarbonate) a chemical reaction happens, which results in carbon dioxide gas being formed.

The carbon dioxide gas creates bubbles in the water.

These bubbles sticks to the popcorn kernel and lifts it to the surface. When the gas bubbles reach the surface, they pop, releasing the gas. Without enough bubbles to keep it floating, the kernel falls back down to the bottom of the jar.

After the popcorn kernel fall to the bottom of the jar, it collects more bubbles, until it has enough buoyancy to float to the surface again.

The popcorn kernels will continue to “dance” until the there is no longer enough vinegar or baking soda to form carbon dioxide gas bubbles.