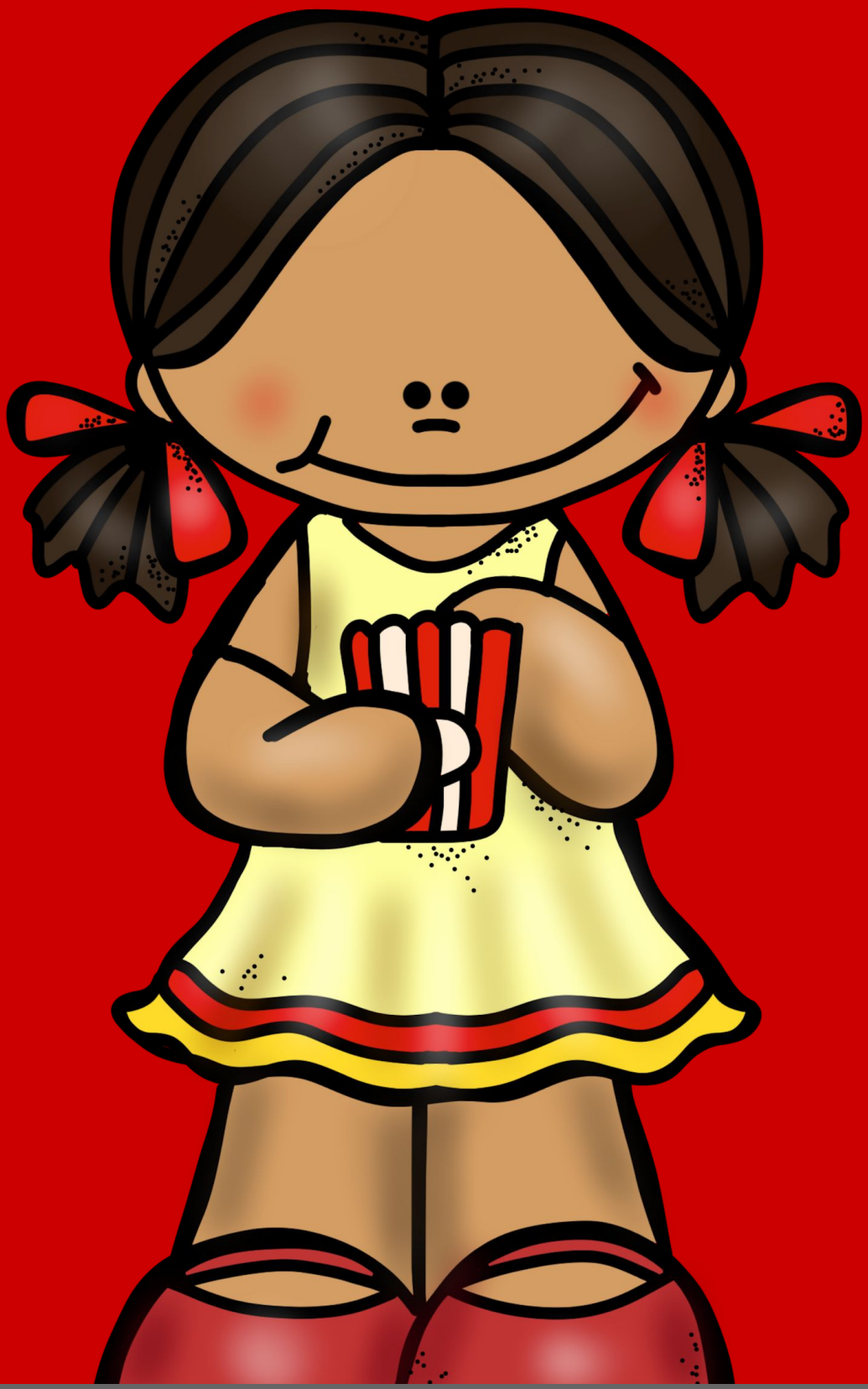
For the LOVE of POPCORN!

Dancing Popcorn



Great multi-age Activity

Why does popcorn pop?

Imagine popcorn kernels are like tiny seeds waiting to turn into a delicious snack. When we put them in the microwave, something magical happens.

Inside each kernel, there's a little bit of water trapped in it, kind of like a secret ingredient. When we heat the popcorn in the microwave, the water inside the kernel starts to get really hot.

As it gets hotter and hotter, the water turns into steam, which is like invisible hot air. But here's the fun part: the steam needs more room than the tiny kernel can give it. So, it pushes against the kernel from the inside, trying to escape, just like how you might try to push open a door when you want to go outside to play.

But the kernel is strong and won't break easily. So, the pressure from the steam inside keeps building up and up until finally, POP! The kernel can't hold it any longer, and it bursts open, making that exciting popping sound. And guess what? When it pops open, it turns into that fluffy, white popcorn that you love to eat!

So, when you watch popcorn in the microwave, you're actually seeing a little explosion of steam making the kernels burst open into yummy popcorn pieces. It's like a tasty science show happening right in your kitchen!

7 Kernals of Popcorn History

The history of popcorn is a fascinating journey that spans thousands of years and multiple continents.

1. Origins in the Americas: Popcorn is believed to have originated in the Americas, specifically in what is now Mexico. The oldest evidence of popcorn dates back to around 3600 BC, with kernels and popped popcorn discovered in ancient Mexican burial caves. Indigenous peoples in the Americas, including the Aztecs and the Native American tribes, used popcorn not only as a snack but also in various ceremonies and rituals.

2. Introduction to European Explorers: When Christopher Columbus and other European explorers arrived in the Americas in the late 15th century, they encountered popcorn for the first time. Native Americans demonstrated how to pop corn over an open flame, which intrigued the Europeans.

3. Popcorn's Spread: Popcorn quickly gained popularity in Europe and other parts of the world. By the 17th century, it was being enjoyed by people in various countries. It was also commonly sold by street vendors in England.

4. Popcorn at Fairs and Carnivals: In the 19th century, popcorn became a staple at fairs, circuses, and carnivals in the United States. It was often sold from carts and became associated with entertainment events.

5. Popcorn Machines In the late 19th century, popcorn machines were developed. These machines made it easier to pop large quantities of popcorn, and they were often used in theaters and other entertainment venues.

6. The Great Depression: During the Great Depression of the 1930s, popcorn gained even more popularity because it was an inexpensive and tasty snack. Movie theaters, in particular, began selling popcorn to boost their profits.

7. World War II: Popcorn's popularity continued to grow during World War II, partly because it was one of the few snacks not rationed during the war.

Popcorn Ideas the POP

1. Popcorn Mosaic: Make a mosaic by gluing individual pieces of popped popcorn onto a piece of cardboard or paper to create a picture or pattern. You can paint the popcorn kernels different colors before gluing them to add more vibrancy to your mosaic.

2. Popcorn Sculptures: Use popcorn and non-toxic glue to build 3D sculptures. You can make animals, people, or any imaginative figures you like. Paint them or decorate them with other craft materials.

3. Popcorn Collage: Create a collage by gluing popcorn kernels onto a canvas or poster board to make a textured and unique piece of art. You can use popcorn as the background or incorporate it into a larger collage with other materials.

4. Popcorn Jewelry: Make popcorn necklaces or bracelets by stringing popped kernels onto thread or string. You can paint the kernels in different colors or use food coloring to dye them before making your jewelry.

5. Popcorn Portraits: Use popped popcorn to create a portrait of a person, animal, or even a fictional character. Arrange the kernels in different ways to represent different shades and textures.

6. Popcorn Landscapes: Use popcorn as the base for a miniature landscape or diorama. Add other craft materials like clay, sticks, and colored paper to create scenes or settings.

EASY Popcorn Expeirment

Dancing Popcorn

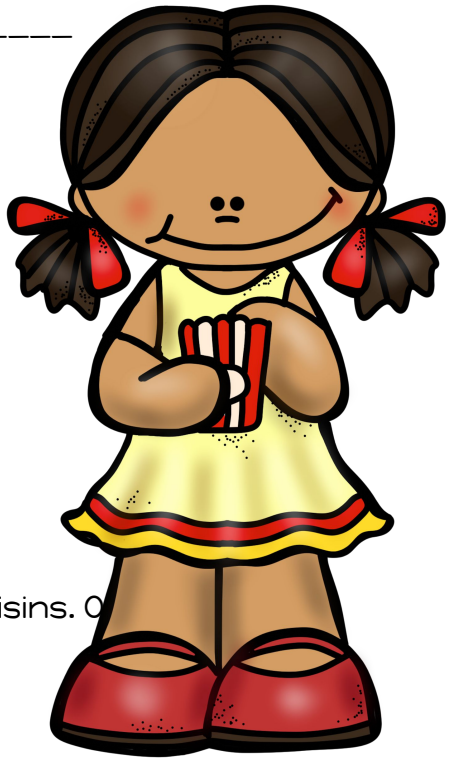
Question: Will Popcorn kernels and craisins sink or float in clear soda?

Hypothesis (educated guess):

_____

_____

_____



Materials:

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- clear glass
-
- clear soda (we used ginger ale)
-
- popcorn kernels
-
- craisins (or raisins)

Procedure:

Add clear soda to the clear container. Add the kernels and craisins. O

Draw what happened:

Did the kernels and craisins do what you thought they would do? _____

Dancing Popcorn, Part 2

Watch this video:
http://youtu.be/RgEQls0wvzU "Proving the Density formula"

What did this video teach you that would explain why the kernels and craisins reacted the way they did?

_____

_____

_____

_____

_____

_____

_____

_____

_____

Teacher Cheat sheet

Formula for density is:

Density = mass of an object divided by its volume.
(fancy and makes me sound smart huh?)

Density is basically " how tightly packed together are all the atoms that make up an object. The tighter the atoms, the denser the item. A Styrofoam rock and a real rock will look the same, but have very different densities.

If the volume (how much space an object takes up) is increased, then the density is reduced.

In the dancing popcorn experiment, the carbon dioxide in the soda is attracted to and clings to both the kernels and the craisins. The volume of each object is increased (made bigger) by the carbon dioxide. As the volume increases, the kernels and the craisins become less dense than the soda. This causes them to rise tot the surface.

At the surface the carbon dioxide bubbles burst and the volume is reduced again. The kernels and craisis sink because they become more dense then the soda.

Fun!

Vocabulary:

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- Density
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- Volume
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- Mass
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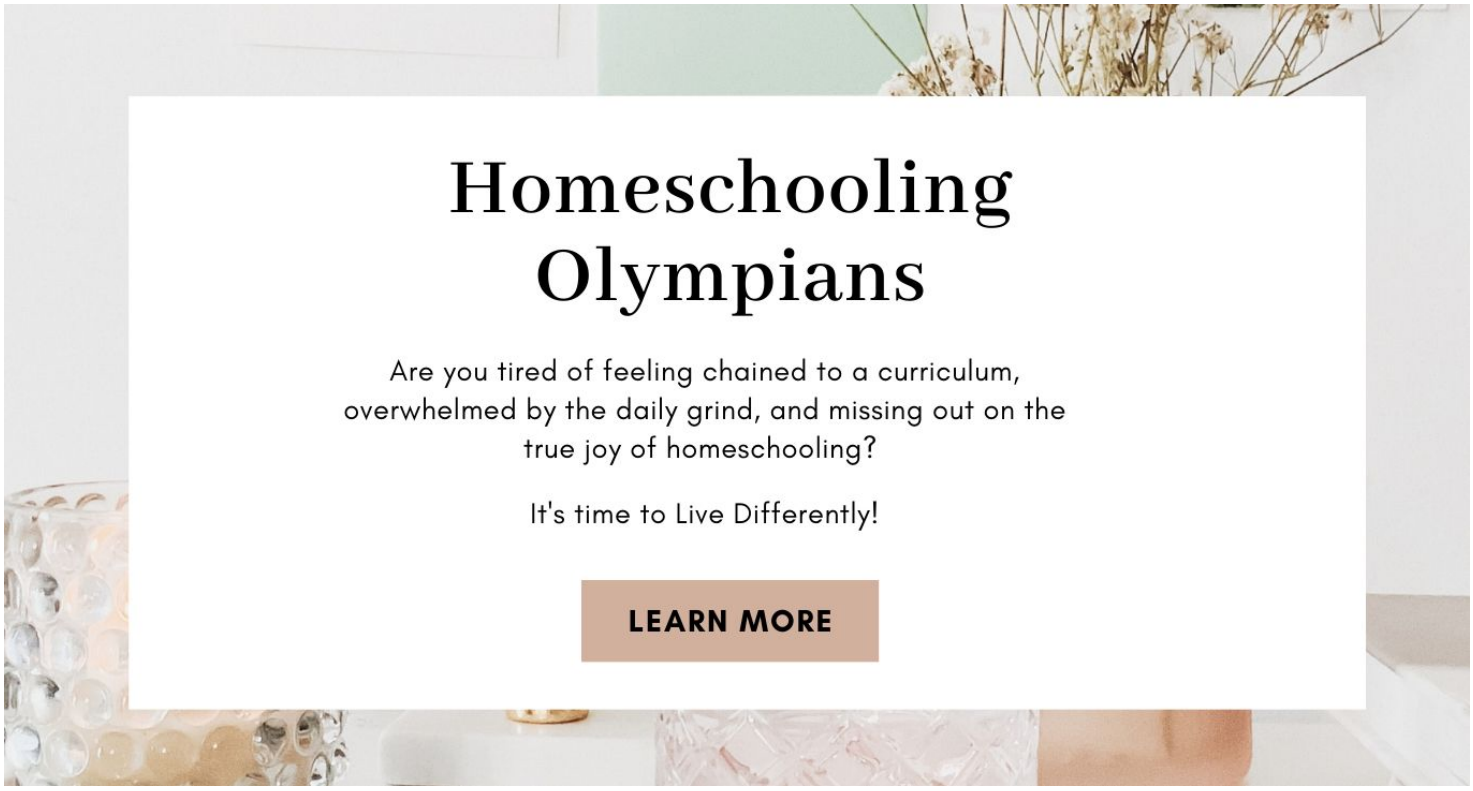
- Carbon Dioxide
-
- Curiosity
-
- hypothesis

Have fun exploring the world around you!

Science ignites a child's brain to ask questions and become an independent thinker!



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