

Dancing Raisins

Concept: Air bubbles cause objects to float.

Materials:

- 7-Up (Sprite and other clear, carbonated beverages will work as well)
- Tall, clear drinking glass
- Several fresh raisins

Thinking and Predicting Question:

Will the raisins sink or float when you place them in a glass of 7-Up? Why?

What to do:

Fill the glass with your clear, carbonated beverage. Drop a few raisins into the glass and observe.

What will happen:

The raisins will first sink to the bottom. Then watch closely. After a few seconds, they will float up to the top, then sink again.

Why this happens:

Raisins have more density than the 7-Up, so they sink to the bottom. But the carbon dioxide air bubbles stick to the surface of the raisin as they rise up through the liquid. When they stick to a raisin, they give it extra buoyancy, causing it to float to the top. When the bubbles detach from the raisin, it sinks again.

After awhile, the soda will run out of fizz and it will no longer lift the raisins.

Vocabulary:

Carbonation – carbon dioxide bubbles in water

Rise – to go up; Float

Sink – to go down; fall to the bottom

Discussion:

What do you think will happen to the raisins when the water runs out of carbonation? Why do you think pop tastes “flat” after it's been out for awhile?

Name: _____

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What to do:

Fill the glass with your clear, carbonated beverage. Drop a few raisins into the glass and observe.

What is carbonation? How can you tell it is in the 7-Up?

Define density.

Which is more dense: raisins or soda pop? How can you tell?

What happened to the raisins? Why?

Dancing Raisins - ANSWERS

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What to do:

Fill the glass with your clear, carbonated beverage. Drop a few raisins into the glass and observe.

What is carbonation? How can you tell it is in the 7-Up?

Carbonation is carbon dioxide gas that is in the soda pop. You can tell it's there because you can see small bubbles clinging to the side of the glass when you pour it.

Define density.

Density is the amount of amount of mass per unit of volume.

Which is more dense: raisins or soda pop? How can you tell?

The raisins are more dense than the soda pop because they sink.

What happened to the raisins? Why?

After a few seconds, they will float up to the top, then sink again. Raisins have more density than the 7-Up, so they sink to the bottom. But the carbon dioxide air bubbles stick to the surface of the raisin as they rise up through the liquid. When they stick to a raisin, they give it extra buoyancy, causing it to float to the top. When the bubbles detach from the raisin, it sinks again.