

Science Investigation: 11/5/20 (Summer Term Week 4)

DANCING RAISINS

SCIENCE
CHALLENGE

18

Designed by Danya,
James Dyson
Foundation executive

Let's see if you can use your scientific skills to **perform a simple test**, **observe closely** and **suggest answers to questions**.

Follow the instructions to perform the test.

Observe (watch and think about) what you see happening.

Why do you think it is happening?

Draw and write about what you saw in your workbook.

The brief

Make raisins dance up and down in a glass of fizzy drink.

The method

1. Pour the can of drink into the tall glass.
2. Notice the bubbles coming up from the bottom of the glass. The bubbles are carbon dioxide gas released from the liquid.
3. Drop a few raisins into the glass. Watch the raisins for a few seconds. Describe what is happening to the raisins.
4. Do they sink or float? Keep watching, what happens?

Materials

A can of clear, fizzy drink (e.g. lemonade)
A tall, clear glass
A handful of raisins



How does it work?

Raisins have a higher density than the liquid in the glass, so they sink to the bottom. Carbon dioxide bubbles attach themselves to the raisins increasing their volume while adding very little to their mass. With greater volume, the raisin displaces more fluid. This causes the water to exert greater buoyant force, pushing the raisins upwards. Once the raisins reach the top of the glass the carbon dioxide escapes and the raisins sink again.

