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# SCIENTRIFIC!

Science teacher is top of the class for experimenting with fun

**R**EMEMBER those dreary lessons spent at a bench, pretending to find periodic tables fascinating, while secretly seeing what happened if you ever so slightly dipped the end of your hair in the flame of the Bunsen burner? Had Sue Martin been your teacher, not only would she have encouraged your interest in the hair thing, she would have explained exactly what was going on and why there was that awful smell. This is the science teacher who, when she says in all seriousness, "You know, jelly really is such an interesting substance," you want to hear more. When she happens to mention that building a bridge out of sweets is a great idea, you want to be in her class. Which is why many of Sue's pupils were as delighted as she was when she beat tough opposition to be named the RAF

WORDS **LORRAINE GIBSON**

South West Primary School Teacher of the Year in the Teaching Awards 2010.

"I always wanted to be a teacher," she says. "I never, ever wavered from that, not once. Talk about a vocation, I was born to teach."

"But I was completely overwhelmed to be nominated. You don't expect a host of people saying nice things about you.

"I'm thrilled about it, but not so much for the personal recognition, but for the fact that the school is celebrated because they let me do my thing and without that I couldn't teach the way I do."

It's clear that Sue is an inspirational teacher and because she is mad about science and passing this passion for the subject onto others is what she loves (and does) best, she has won the award, which

basically stems from being endorsed by people who admire you.

When a judge went to see her in action at Talbot House Preparatory School where she is Deputy Head Teacher, the class was fully immersed in the latest theme - jelly. "We threw it on the ceiling, the floor, everywhere, to explore forces and motion." "If I see something and think 'I would've loved to do that as a child', I turn it into a science project. Sweets are good. You can create a lot of things using sweets and building with stuff you can eat is great fun." Couldn't agree more.

In fact, in Mrs Martin's class they also throw eggs out the windows, envelope themselves in giant bubbles, cause cola bottles to erupt into fountains and make their own sherbet, all in the name of science, of course. "If it bubbles, pops or bangs, children love it." ►



◀ Prior to interviewing Sue, I ask her to bring along some props for a photoshoot. Now, I'm thinking the odd test-tube, maybe an amusing pair of safety goggles, but she arrives juggling a vast bag bursting with all sorts of intriguing stuff, including some mega-strength bubble solution, a DIY lava lamp and a mobile fluorescent tube of all things. But you get the feeling that she carries this sort of stuff around in her bag all the time. It's not surprising that Sue is in great demand for talks and appearances at science fairs, has had a book of her 'kitchen science' experiments for primary school children published and has organised science-themed birthday parties for children, complete with lab coats and Brainiac-style party games. Judges said: "Sue lives and breathes science and technology and we too felt inspired. "During our visit, one of our judges was given a tub of magical glow-in-the-dark powder which he has since used with his own pupils to demonstrate how bacteria spreads – awesome!" The national finals of the Teaching Awards are held on October 31 and will be shown on BBC2 ●

## Do try these at home...

WHY not get your little scientists to try these fun experiments from Sue's book?

### Raisin Bubble Boogie

"This is really easy to set up says," says Sue, "and will help develop their understanding of floating and sinking."

**What you need**

A freshly-opened bottle of clear fizzy drink (lemonade, soda or tonic water)

A handful of raisins

**What you do**

It's so simple – pour out a glass of the drink and drop in the raisins. Now watch them dance!

**What's happening?**

The raisins are too heavy to float, so initially they sink to the bottom. However, and here's the science bit, bubbles of CO<sub>2</sub> in the liquid are drawn to the extra surface space the fruit provides, they attach themselves to the outside and act as tiny 'floats'. Together they rise to the surface and dance.

### Fizzy Fountain

The Mentos Fountain is a worldwide phenomenon.

**What you need**

2 litre bottle of Diet Cola

A tube of Mentos™ mints

Cardboard tube (to act as a 'delivery chute' for the mints into the cola bottle)

Piece of card

**What you do**

Find a flat area in the garden. Place the cola on the ground, then remove the lid.

Remove the packaging from the mints and transfer all of them into the cardboard delivery tube

Place a small piece of card over the neck of the cola bottle and stand the delivery tube filled with mints directly over the opening on top of the card

Hold the card with one hand, the tube with the other.

When ready, swiftly pull the card away so the mints fall into the bottle.

NOW RUUUUUUN !!!!

**What's happening?**

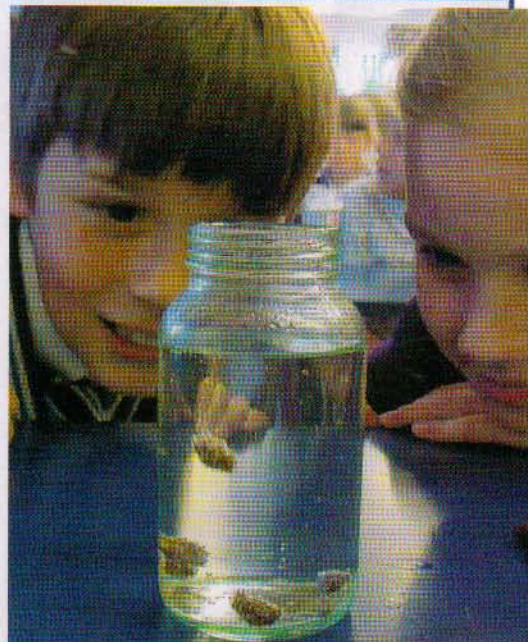
As soon as something is dropped into the cola (regular cola is fine, but the sugar makes a lot more mess!) bottle, the surface tension of the liquid is broken, allowing lots of gas to escape. But the Mentos™ help to generate many more bubbles, speeding up the exodus of gas even further. The result is a massive expulsion of gas bubbles, carrying cola high into the air.

### Erupting Volcano

"A great opportunity for children to be artistic as well as scientific"

**What you need**

Model volcano (make it in advance from clay



**What's happening?**  
Best you check out Sue's book *Fizz, Bubble, Pop!* Published by TTS, £14.99. Order online at [wowscience.co.uk](http://wowscience.co.uk)

or plaster of Paris so it can be used over and over again – as the kids really love this experiment)

Bicarb of Soda  
Washing-up liquid  
Vinegar

Food colouring  
Tomato ketchup  
A tray to catch the 'lava'

**What you do**

Spoon 2.5 to 5ml of bicarbonate of soda in the centre of the volcano

Add around 10 drops of food colouring (a pipette makes this so easy)

Now pour in 25-30ml of vinegar.

Stand back and enjoy the reaction!