

Education



Sparking a positive reaction

Katie Hung

DOZENS OF KIDS sitting downstage with their parents concentrated on watching balloons being inflated. But this was neither a magic show nor a game show.

It was science, where one utilizes juices, or vinegar, and bicarbonate of soda to pump up the balloons which were stretched over the flasks.

The experiment was one of the activities from this year's HK SciFest held in late April at the Hong Kong Science Museum, which was also one of the two segments from the chemical corporation BASF Kid's Lab program targeted at those who are aged 6 to 12.

The interactive show, which invited a few children to go on stage to take part in the experiment, taps into the topic of acids and bases as well as the reduction-oxidation reaction between acids and bicarbonate of soda, or better known as baking soda.

The resulting chemical reaction is the creation of carbon dioxide, or CO₂, which inflates the balloon.

"We would like to tell kids that different kinds of juices we drink everyday has different acidity," said the host Joseph Hui, also BASF's Asia Pacific intermediates business development senior manager.

"Since we add the same amount of bicarbonate of soda, the bigger the balloon is, the more acid it has inside."

The application of this reaction can also be seen in our everyday lives like in bread-making, he added. It is the CO₂ brought out by adding bicarbonate of soda that makes the dough rise while the baking process helps it to swell up to become bread.

The program's other segment, the experiment workshop, introduces kids to the theme of enzyme reactions by making the traditional Chinese dessert,

ginger milk curd. The food experiment shows how protease in ginger reacts with soluble protein in milk to cause coagulation during the pouring of hot milk into the juice.

Some of the participants were given other fruits



like oranges and tomatoes to use in comparison.

Student mentor Danny Wong, a year-four Hong Kong University of Science and Technology chemistry student, recalled he barely did any experiments in primary school. It was not until secondary three did he start to study this subject at school and conduct similar types of experiments.

The ginger milk curd experiment has a similar

level of difficulty to the ones Wong conducted in secondary school. Though the kids did the experiment at a much earlier age, he thinks it is also relatively easy to handle.

"It showcases the physical changes of the solutions so kids can see the changes made from A (liquid state) to B (coagulated state). The procedure is quite safe and fun, and also less complicated."

The participating primary six student Diane Wong, who is interested in science and has even subscribed to a few science magazines catered to children, agrees that there is little to no opportunity to conduct experiments at school, adding that they do not perform even a single experiment throughout the school year.

It was her first time discovering that science can be fun through the workshop.

"We are only reading textbooks in our general studies lessons (the subject that teaches general understanding to various aspects like society and science in the local primary school curriculum), and then memorizing the book for exams," she said. "But it turns out science is not all about reading a book. I can get my hands dirty."

BASF representative Daisy Lam, the Asia Pacific head of marketing communications, brand management and corporate affairs, is hoping that the program can help plant seeds in children's minds at an early stage so to spark their interest and ignite the children's passion for science.

She believes that once children are given a taste of what science is truly about, it will cause them to become more interested and will give them the motivation to discover more and conduct research out of their own volition.

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On May's bookshelf



Brighten Youth Education Centre

MASON CURREY'S *Daily Rituals: Women at Work* (2019) exists, in his own words, as a corrective.

His initial effort, *Daily Rituals: How Artists Work* (2013) explored how accomplished professionals made time for work and got things done.

However, one of the book's initial shortcomings was that 80 percent of those included were men, and he begins by lamenting that he did not work harder to gather more stories about women. These achievements "were frequently mitigated by devoted wives, paid servants, sizable inheritances, and, oh yes, centuries of accrued privilege."

Nevertheless, the struggle was real.

In a 1912 letter to his lover Felice Bauer, Franz Kafka complained: "time is short, my strength is limited, the office is a horror, the apartment is noisy, and if a pleasant, straightforward life is not possible then one must try to wriggle through by subtle manoeuvres."

Honore de Balzac engaged in "orgies of work" fuelled by as many as 50 cups of coffee a day (and was, perhaps understandably, dead at 51). Anthony Trollop demanded 3,000 words of himself each morning before heading off to his job at the post office. Gustave Flaubert wrote through the night, finally finding peace once his family had retired and pouring seven years of his life into magnum opus, *Madame Bovary*.

Currey's new work focuses on 143 women

and "opens dramatic new vistas of frustration and compromise." While some of those included enjoyed wealth and independence; "most grew up in societies that ignored or rejected women's creative work, and many had parents or spouses who vigorously opposed their attempts to prioritize self-expression over the traditional roles of wife, mother, homemaker."

Penelope Fitzgerald did not publish anything until she was 58, and recognition came only in her 70s. Her husband drank while she supported their three children by working as a teacher. For a time, the family lived on a dilapidated houseboat on the Thames despite Fitzgerald having graduated with a First from Somerville College, Oxford.

Others, including Shirley Jackson and Toni Morrison, found ways of working in their head while also assuming the domestic burden.

Perhaps this is why many of the women included here have embraced more moderate habits than the creatives described in the first volume: who has time for "orgies of work" when there are beds to be made?

Currey hopes to achieve more than just "highbrow trivia," instead aiming to produce a work of use to anyone struggling to make time or get into the right state of mind for their own projects.

These biographical vignettes deserve to be savored for their humor, revelatory power and resilience – from Isak Dinesen's diet consisting only of champagne, oysters and amphetamines, to Isabel Allende's insistence that she begin each new book on January 8.

If you have any questions about our column, or the issues raised within it, please e-mail them to us: enquiry@englishlearning.edu.hk

