

When I was preparing the editorial in the last edition, we were settling into place a new joint executive editor, Andrew Welsh, to replace Hendrina Ellis who retired at the end of December. Belatedly, I want to welcome Andrew and say thank you to Hendrina for converting our mix of words and illustrations into an attractive journal for a period of some 12 years. Those who have worked with Hendrina will know she has unflappable cheerfulness and would test things time and again to get the best result despite approaching deadlines for the printers. The fact that most of you will not have noticed this change in the March edition is a tribute to the management and skills of both Hendrina and Andrew in arranging a smooth handover, coordinated by Helen Johnson who has extended her role in managing the production of the journal.

We also welcome to ASE Annette Smith, replacing Derek Bell as chief executive. I have valued Derek's support, particularly when handling controversial issues.

When considering the theme for this edition, we had in mind the bravery of the men who went to the Moon 40 years ago. Despite having the backing of a massive team and a huge financial investment, the astronauts themselves played a large part in the design of the relatively tiny craft in which they would fly. How many of you would volunteer to fly through space at over $100\,000\text{ km h}^{-1}$ in an open-top spaceship? The fact is nearly 7000 million of us do it every day. Fortunately, a chaotic yet reasonably stable atmosphere and a hydrosphere with the same two important properties travel with us, making life sustainable.

As this is International Year of Astronomy, we have included various aspects of the significance of the Earth in space, along with some of the technologies which have become established during and since the Apollo Moon programme. I welcome David Bowdley as guest editor. David was working with the Faulkes Telescope Project when he accepted the role of managing this theme. He now works with the National Schools' Observatory – clearly someone with education in astronomy at the centre of his thinking! He tells us more on page 43.

A special feature of this edition is a transcript of the presidential address given by Professor

Wynne Harlen OBE at the Association for Science Education Annual Conference 2009 in Reading. Wynne reminds us that behind the detail of learning methods which occupy the thoughts of teachers constantly, there has to be an optimism in preparing students to continue wanting to learn throughout life.

The *Science notes* start with Duncan Short finding inspiration for class investigations from a felled tree while on a country walk with his family, a lesson for all teachers. Just when you thought carbon crystals were all diamond or graphite, along came the fullerenes. Christopher Talbot delves into the structure behind these chemical footballs. Also looking at the edge of school chemistry, Wynne Evans and Peter Hall consider the methods of recording the properties of acids when they are so dilute or so concentrated that they would appear to be outside the scale used for such measurement.

Frank Harris offers a traditional mechanics demonstration which can be used as a puzzle for open evenings, while Bob Kibble sent in a demonstration which teaches about phases and eclipses of the Moon. Many of us will have tried models with tennis balls and light bulbs. Here inclusion of a video camera gives everyone the same viewpoint to aid description and discussion, providing an excellent contribution to our space theme.

In the remaining major articles, Elaine Batchelor explores what may seem a novel plan in teacher training, placing two trainees in the same school for shared experience, which includes taking the role of a classroom assistant. Then Roger Lock and Melissa Glackin encourage us to consider education outside the classroom, and discuss the implications of students' initial teacher training experience for teaching out-of-classroom science. These contributions show the increasing need for science departments which can accept and support those wanting to join the profession.

Finally, Ralph Levinson reminds us that life for children can be very different in other parts of the world. This is a valuable look at social aspects of science and technology when we realise how our own economy is supported by the efforts of others.

Geoff Auty

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