



**A**lthough this is only the first issue of 2014, the academic year is already starting to draw to a close. By the time this issue reaches you, spring will have

sprung and preparations for the end of year, and those dreaded exams, will be well underway. Spring, however, is a season of renewal – a new start – and for *Science in School* that is very apt. With two new staff members in the office, we're

full of enthusiasm for the coming year and beyond. There are many plans for new projects and improvements, but this issue demonstrates that we are still committed to producing a wide variety of articles – from the cutting-edge research involved in developing fusion power (p 2) to the modern techniques used to look back hundreds of years to the Black Death (p 7). New years and new beginnings are also a time to look back and take stock. As well as local assessments and national league tables, teachers and students today are also subjected to the Programme for International Student Assessment (Pisa), the results of which were recently released. Pisa is one way for those working in education to see how different teaching and learning styles can affect learning outcomes, and we at *Science in School* will be coming back to that question, probably more than once, over the next few issues. Although it is tempting to look at the Pisa rankings as absolute, we must remember our scientific training. Averages can hide many variations in the data.

In an increasingly technological world, science is relevant to almost every part of our lives. As science teachers, it is you who are able to equip the next generation for that world. Not every child will discover the next blockbuster drug (p 40) or send a portable laboratory to Mars (p 12), but every child will be affected by those discoveries. Providing students with an understanding of how we interrogate and understand the world around us cannot fail to help them in later life, whether it is by teaching them to calculate fundamental physical properties of energy (p 28) or to ask more questions next time they go to the doctor (p 50).

A century ago, Max von Laue received the Nobel Prize in physics for showing that X-rays could be scattered by crystals. Today, this technique is more important than ever and it is hard to see areas of science that crystallography hasn't touched. It is because of this importance that Unesco has declared this year the International Year of Crystallography. With a variety of educational resources on offer, this is yet another way of showing your students how simple observations and experiments can have a wide impact. Whether you inspire the next von Laue or just help your students appreciate their discoveries, we hope that our journal can also, in some small part, help you to make a difference.

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