Welcome to the twelfth issue of *Science in School*

In this issue’s feature article, Leroy Hood, the ‘father of systems biology’ describes his commitment to encouraging concept-driven, hands-on science teaching. He explains how he introduced this approach across schools in Seattle – and why his achievements in science may be due to his small-town upbringing.

Hands-on science is also key to Greek science teacher Theodoros Pierratos’s success: he and his students entered – and won – a competition to send an experiment into space. This and the resulting contact with the European Space Agency have changed the way his students view science.

Games are one way to grab the attention of your students. The virtual microarray activity introduces the colourful and sophisticated technique of the DNA microarray into the classroom. And as if that wasn’t enough colour, Sonia Furtado investigates how glow-in-the-dark jellyfish led to a Nobel Prize in Chemistry in 2008 – for the discovery and development of green fluorescent protein.

From green jellyfish to black boxes: Ľudmila Onderová describes how to build and use black boxes in the classroom – inspiring your students to think scientifically by hiding electric circuits inside them.

Inspiring a school full of students can be a daunting task, but how would you go about motivating a different group of students every few months? Substitute teacher Jeanne Keweloh encounters exactly this challenge: new students, new colleagues, new topics – she’s always on the move.

The challenge of Katy Lithgow’s job is very different: using science to preserve paintings, textiles, furniture and other contents of historic houses. One of the problems she faces these days is climate change, which can cause flooding and increased damage by insect pests, for example. Why not combine our profile of Katy with Dudley Shallcross’s teaching activities? In the latest article in our climate-change series, he and his colleagues propose an experiment involving solar power as a source of energy.

The most common sources of energy are still hydrocarbons. Continuing
In her articles, Halina has used Science in School to share her teaching ideas with teachers across Europe and beyond. You too can contact your international colleagues through the journal by using our online discussion forum. If you want to share your ideas, find answers to scientific questions or start collaborations with teachers in other countries, the Science in School forum could be the place to start. See: www.scienceinschool.org/forum.

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