

# Welcome to the seventeenth issue of *Science in School*



**D**o men and women share the same sense of humour? Perhaps, but their brains react differently to it, as Allan Reiss explains in this issue's feature article (page 8). Of course, people differ not only in their humour but also in many other ways, including skin colour, hair thickness and the ability to digest starch or lactose. What is the genetic basis of such differences, and could they have been evolutionary adaptations to a changing environment? Jarek Bryk tells us how scientists investigate these questions (page 11).

Once scientists have the genetic data, how do they analyse it? Bioinformatics is an important tool; with Cleopatra Kozłowski's activity you can try some of the techniques yourself, exploring phylogeny with a pen and paper (page 28).

Do you teach physics rather than biology? Then you might like two of this issue's teaching activities: modelling the trajectory of a projectile (page 23), or a laser pen for beaming music across the classroom (page 41). For chemistry teachers, our nanoscale experiments offer an interdisciplinary activity (page 34).

Nanoparticles are also at the heart of cloud formation, as Karin Ranero Celius explains (page 54). The physics of these masses of water droplets or ice crystals is quite complex, and scientists are still learning how clouds and climate influence each other.

Tim Harrison and Dudley Shallcross also have their heads in the clouds: they commemorate the 25<sup>th</sup> anniversary of the discovery of the hole in the ozone layer by investigating the chemistry of how the hole formed and why it's going to get smaller (page 46). Ice clouds in the stratosphere are at the core of the matter, yet amazingly, even at very low temperatures, clouds can consist of water droplets rather than ice. Tobias Schüllli investigates this phenomenon, known as supercooling (page 17).

Moving even further away from Earth, into space, we enter the realm of astronomers. Marvel with Jochen Liske at huge telescopes in remote places and learn about his involvement in *Das Auge 3D*, a 3D film about the Very Large Telescope in Chile's Atacama Desert (page 60).

Making science visually appealing definitely helps in the classroom – but how do you do this when teaching blind and visually impaired youngsters? Werner Liese shares his experiences in this issue's teacher profile (online). This and several other articles in this issue are available online only – so do visit the *Science in School* website. To learn more about its features, see our new help page: [www.scienceinschool.org/help](http://www.scienceinschool.org/help)

Finally, don't forget that there are many ways in which you, too, can contribute to *Science in School*. Find out more online: [www.scienceinschool.org/information](http://www.scienceinschool.org/information)

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*Science in School* promotes inspiring science teaching by encouraging communication between teachers, scientists and everyone else involved in European science education.

The journal addresses science teaching both across Europe and across disciplines: highlighting the best in teaching and cutting-edge research.

It covers not only biology, physics and chemistry, but also earth sciences, engineering and medicine, focusing on interdisciplinary work.

The contents include teaching materials; cutting-edge science; interviews with young scientists and inspiring teachers; reviews of books and other resources; and European events for teachers and schools.

*Science in School* is published quarterly, both online and in print. The website is freely available, with articles in many European languages. The English-language print version is distributed free of charge within Europe.

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