

The news section gives updates on what has been happening in physics education worldwide. Items included show how events in one country could be relevant to good practice elsewhere in the world. Contributions are welcome from all of our readers. They should be about 200–300 words long and can include pictures. Please e-mail your news items for the September issue of *Physics Education* to ped@iop.org before 19 July 2010.

MUSIC

Here comes science that rocks

The American alternative rock band They Might Be Giants branched out into children's music several years ago, winning a Grammy for their 2008 album *Here Comes The 123s*. Now the band has adapted its unconventional musical style and quirky lyrics to produce a CD of science-themed songs, and scientists, teachers and lots of kids are taking notice. The *Here Comes Science* album features 19 songs and a DVD with animated versions of each tune is also available (most can also be seen on YouTube). More than half of the songs have a physics, astronomy or general science theme.

They Might Be Giants was formed in 1982 by Brooklyn, NY, musicians, John Flansburgh and John Linnell. 'We've been performing science and history songs for a long time and were intrigued by popular scientific ideas,' said Flansburgh. 'After the success of our earlier kids' CDs, we wanted to do an album that covered some basic science concepts.'

While some songs are simply repetitious and reinforce a basic scientific principle, such as the difference between speed and velocity, others are more demanding of young listeners. 'Meet the elements' is a quick tour of the periodic table, which cranks out properties for more than a dozen common elements. Likewise,



They Might Be Giants have produced a science-themed album.

'Why does the Sun shine?' is bursting with solar facts. 'Science is real' and 'Put it to the test' outline what science is and how it is done, and animations on the DVD touch on the scientific method, the big bang theory, magnetism, inclined planes and the speed of falling bodies.

Other tracks include 'Roy G Biv', which sets the well known mnemonic for the visible spectrum to a snappy melody; 'Solid liquid gas', which explains the states of matter; and 'What is a shooting star?', which drums home the difference between a

meteor and a meteorite.

Some songs also cleverly sneak in a few cultural references via the music. In 'How many planets?' the lyrics are merely a list of the planets, but the pronunciation of each one changes. Venus, for example, is sung in a woman's voice, Mars has a distinct alien or 'Martian' sound, while Jupiter is spoken with a deep, slow voice conveying its massive size. Then there's the gurgling pronunciation of Neptune, which sounds distinctly subaquatic, a quaint reference to the Roman god of the sea. Flansburgh doesn't believe

that these cultural references, or the science, are beyond the targeted audience. 'Kids today are smart. They're going to get it.'

Walter Smith, a physics professor at Haverford College in Pennsylvania, feels that 'a few of the physics-related songs are brilliant. *Here Comes Science* is aimed at children up to about age 10, although older kids will enjoy some of the songs as well.' He adds that some of the songs 'would even be appropriate for high-school or college students'.

Having no scientific background, Flansburgh says that

he and Linnell sought scientific advice when composing the lyrics to get the facts correct, but acknowledges that a few bloopers slipped through. These are mostly evident in the animations where, for example, the scale of the planets or subatomic particles are not accurate, although such discrepancies are not uncommon even in textbooks. They did, however, correct the lyrics of 'Why does the Sun shine?', which calls the Sun a mass of incandescent gas. They wrote a sequel, 'Why does the Sun really shine?', which begins: 'The Sun is a miasma of

incandescent plasma'.

Flansburgh is clearly pleased with the largely positive reception of *Here Comes Science* especially when teachers adapt the songs to engage students in the classroom. 'Because we've had so much success with our music for kids, we've been able to reach a larger audience than we ever could have imagined.'

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