BBC ONLINE

Ken MacDonald's weekly news and opinions

Ken MacDonald is BBC Scotland's Education Correspondent and files a story with us every Monday.

Friday 14th May 1999

The Bonfire of the Sports Jackets

Let's face it. Some subjects have had such a poor image it can seem that making them attractive to pupils is an impossible task.

In my schooldays - admittedly not exactly yesterday - that was true of chemistry. If young people thought about it - and I suspect precious few did unless they has a Higher coming up - there was a tendency to recall wizard stinks, the odd explosion (usually planned) and precious little else. Chemistry teachers seemed to be exclusively male and when one approached you could hear their sport's jacket flapping. And what magnificent jackets they were: hard wearing, patched of elbow and constructed of a check so large and garish that even Arthur Montford would have rejected it as a bit on the tasteless side.

Of course all that has changed nowadays, hasn't it? Today's chemistry teachers are hip and happening young things, in tune with their pupils. Well, at least more of them are women. But the subject itself still has an image problem. There's a tendency to think of chemistry as a discipline whose golden age was a century or more ago. Back then chaps like Nobel and Bayer were throwing up huge, smelly factories to produce the wonder substances of age like ammonia and TNT. Chemistry was to the last century what biotechnology is to the closing overs of this one. And that's the problem: today's pupils look on other science subjects as the cutting edge.

Until now: chemistry is fighting back. It's doing it with the very latest technology - and a stunning collaboration between science and the arts. The Royal Society of Chemistry has helped create Visual Elements. It's a superb re-interpretation of perhaps the most complex and confusing item ever to be put before a secondary pupil: the periodic table of the elements. Sure, it's logical once you get the hang of it, but inspirational it ain't.

Or rather it wasn't. But now Scottish artist Murray Robertson has produced a periodic table which doubles as one of the most striking artworks you'll see for a long time. It's bang up to date with all 109 known elements - even Dubnium which didn't exactly exist until last year. Each element has its own visual image - a re-branding, if you like. And that's what the whole exercise is doing for chemistry.

It's been taken another step in the exhibition Periodic Landscapes which has just opened at the Royal Museum in Edinburgh. Robertson, assisted by scientists like Dr Ann Prescott of Abertay University, has created three-dimensional, virtual reality worlds based on the relationships between the elements in the periodic table.

Assuming that at least non-chemists have stuck with me this far, what's the point? Well for one thing, examining the fruits of this table shows that science can now disprove that old saw about knowing more about less and less. The deeper science digs, the more it finds parallels between seemingly unrelated areas. The very, very wee things particle physicists find have a lot in common with the very, very big things astronomers look at. And the closer you look at the elements - especially if you follow the lead of projects like Visual Elements - the more chemistry starts to resemble the more attractive aspects of theoretical physics rather than the dying echo of an industrial age.

But there's another point. If chemistry can give itself this kind of makeover, what could a similar initiative do for your subject? And are you the teacher to take that initiative?

- If you can't get to Edinburgh to see the Periodic Landscapes exhibition, there's a splendid website at www.chemsoc.org/viselements/
  As well as many of the beautiful images from the new periodic table there's a great section full of goodies like backgrounds and screensavers which you can download to your computer. Naturally I downloaded the lot. Purely, of course, in the interests of researching this column