

Einstein Year gets off the ground



The Institute of Physics hopes that attitudes towards physics will begin to change in 2005.

On 5 January, the Institute of Physics enlisted the help of 18-year-old Ben Wallace, to launch Einstein Year, the UK and Ireland's contribution to International Year of Physics 2005. A member of Team Extreme, one of the world's top BMX stunt teams, Wallace performed the first-ever Einstein Flip, a stunt created with the help of physicist Helen Czerski of Cambridge University that showed young people that physics can be cool.

"Cool" is not a word that most people associate with physics, and it's no secret that, lately, physics has been suffering from an image problem. All too many people regard it as dull, difficult and irrelevant. But Einstein Year is all about bypassing such negative perceptions and creating a whole new set of associations, especially in the minds of 11 to 14-year-olds, the main target audience for the year's activities. At this critical age, children make lifelong decisions about who they are and what they like. For many, Einstein Year will be their first experience of physics, so it's vital that it's an enjoyable and positive one.

Changing perceptions of physics is a huge challenge – for many even the word "physics" is an instant turn-off. The name Einstein Year gets round that by focusing instead on an icon who is not just the world's most famous physicist, but one of the most recognized figures of the 20th century. Even those who turn away from physics warm to the image of the quirky old man with



Launch of Einstein Year at the Science Museum (BMX stunt-rider Ben Wallace)



Rambert Dance rehearsing "Constant Speed" on the London Underground

the mad hair, the non-conformist pacifist who refused to wear socks. And, of course, 2005 is the centenary of Einstein's *annus mirabilis*, when he published seminal papers on special relativity, the photoelectric effect and Brownian motion.

But we're not just relying on Einstein's name and image to change attitudes to physics. Far from being dull, difficult and irrelevant, the events and activities during the year aim to be entertaining, accessible and interesting. For example, throughout 2005 groups of "physics buskers" will be turning up in public places and festivals to show off the exciting physics-based tricks in our specially created "Physics To Go" packs. And there's even an Einstein Year computer game, *Time Twins*, that's great fun to play but also communicates some of the ideas raised by special relativity.

We hope to reach as many young people as possible during Einstein Year, and that everyone who takes part will learn a little physics. But Einstein Year won't take the place of physics teaching in the classroom. Instead, it's about exposing young people to some new experiences of physics – ones they're unlikely to

get at school. The touring exhibition "Move Over Einstein", for example, details the search for the Higgs boson and the mysteries of dark matter with hands-on exhibits that capture the excitement of these research areas. The exhibits will also feature information about some of the young researchers involved in this work. Aside from science museums and science centres, the exhibit will also visit some less traditional spaces, such as city museums and even shopping centres, to reach those who might not otherwise be exposed to physics.

One of the biggest projects that will start during Einstein Year is Lab in a Lorry. Three of these custom-built mobile physics laboratories will be touring the country, each with experiments designed to inspire young people. Visitors will take part in real physics and meet real physicists and, for some, their visit could even be the push that makes them consider taking physics further.

We've started the year as we mean to go on – engaging young people by highlighting the physics involved in activities that interest them. That's why the Institute was keen to team up with Ipswich Town

Football Club to put on an Einstein birthday party – one of dozens around the country. It will include party tricks and games that are, first and foremost, great fun but which are also based on physics. These children will discover, for example, that it's harder to score a goal with a completely smooth football than one with a seam, but they'll also find out why.

Most activities next year are aimed at young people, but adults needn't feel left out. There will be plenty to engage all age groups during the year. Young people don't live in a vacuum. They're influenced by older siblings, parents and teachers, and if everyone around them says physics is boring, they're likely to believe it. Throughout 2005 we'll be demonstrating to everyone how physics plays a part in so many aspects of our lives. There will be ten themes during Einstein Year – including Physics in Music, Physics in Sport, Physics in the Future – which we hope will demonstrate just how relevant physics really is to us all.

This year is a great opportunity to try out new ways of inspiring people with physics, and that effort won't end on 31 December 2005. Once the balloons have come down and the cleaners have left, we'll be taking a close look at what worked – and what didn't – to make sure Einstein Year has a lasting impact. It's not too late to put on your own event. You, too, can be part of this effort to change attitudes, so that a whole new generation grows up believing that physics is interesting, exciting and, yes, even cool.



Tuff Teddy, the main character in a new computer game for Einstein Year called "Time Twins" and based on ideas about special relativity