

THE science 2003 CHALLENGE

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Science Challenge celebrated its tenth year in 2003 with over 2,000 taking part in the Science Fun Days across the UK. For the fifth year running, Science Challenge was sponsored by BNFL and hosted by TV personality Jenny Hull. The Award Scheme and the Fun Days are organised by ASE, with help from the British Association.

Cumbria produced the overall winning secondary school. Students from **Dowdales School in Dalton-in-Furness**, winners at the Salford University Science Fun Day, travelled down to Imperial College, London, for the Grand Final. As overall winners, for their project Parachute Parade, they received a cheque for £500 from BNFL, more data logging equipment and a quartz crystal trophy. They also managed to squeeze in a trip on The London Eye.



Winning students from Dowdales School discuss the qualities of different materials used in parachutes.

Investigations are at the heart of Science Challenge, which is aimed at students aged 9 –13 years and is a whole class activity. Students carry out a scientific investigation as part of their normal science curriculum, selecting a topic of their choice. They present their findings to teachers or governors in class or at a school assembly. The investigation is summarised on an A2 poster, showing how it was carried out and what was found out, in a creative and imaginative way. The poster is then sent to ASE. On receipt of the A2 summary, every student in the class receives a free Science Challenge certificate.

Entering Science Challenge is easy. As soon as ASE receives the entry, details are entered into a database and the poster is stored until the Judging Day, usually held in May, when entries are judged for their science content and also their creativity. Although the poster must be A2, that does not mean that the surface area covered must be simply A2. The ingenious use of flaps, pockets, shapes, layers and movable parts, together with thoughtful use of colour, can produce outstanding pieces of work. The texture of the surface can also bring a display to life. For instance, a project on 'Shadows' displayed on silver and black paper by pupils from Northease Manor School, a special school in Sussex, was such an example. Snappy titles such as 'Drizzy Fink', 'The good, the bad and the ugly' and 'Long-lasting lipstick' can give an extra edge to a project.

No-one entering Science Challenge goes away empty-handed. Every student in a class that submits a projects receives a certificate for their work. Over 16,000 certificates were awarded in 2003. All students taking part in the Science Fun Days receive goody bags containing Science Challenge pens, highlighters and bugs. The winning school in each category receives an amethyst geode trophy, together with data-logging equipment. This year, all schools taking part in the Grand Final received a cheque for £250 from BNFL.

Cucumber, celery, cauliflower, cabbage and carrot were some of the 15 fruits and vegetables that primary students had to classify into parts of a plant – root, leaf, fruit, flower or stem. This was included in one of the interactive quiz rounds, which form part of the Science Challenge event.

Explore@Bristol, Salford University and Imperial College, London, were the venues for Science Challenge 2003. While eight students representing each school took part in the Scientific Investigation into 'What paper towel was best value for money' in the morning, the rest of the school visited the hands-on science displays at Explore@ Bristol, Manchester Museum of Science and Industry, and the Science Museum in London.

Cannons powered by compressed air, firing ping-pong balls at a target, was one of the Challenges set this year. To complicate matters, a revolving windmill had been placed between the cannon and the target, so timing became very important. Angle of elevation and the amount of compressed air needed to reach the target all had to be worked out by each team in the three minutes allowed for practice. Then it was suspense time, as each team took turns to fire their three shots. Cheers rang out for direct hits, while moans highlighted missed shots.



Students from Reddish Vale School, Stockport, rise to the cannon challenge.

Helpers from Colstons Girls' School in Bristol, Parris Wood High School in Didsbury, Manchester and Queen Park Community School in Brent, London worked hard at the Fun Days to ensure that props were moved on and off the stage as quickly as possible. The contribution of these student helpers was greatly appreciated and behind the scenes they enjoy trying to do the challenges themselves!

A quick-fire buzzer round brought both the primary and secondary quizzes to a close. All answers began with the letters to be found in the words Science Challenge. It was a nail-biting, nerve-racking round, where the lead chopped and changed dramatically before the winner was declared.

Lighting and sound were provided by the Science Challenge team at the Fun Days, and as the sound director is a professional musician he filled every interval with dance music which allowed the audience to come down to the stage set to display their dancing skills and the latest in disco music. After all, sound and light are in the science curriculum!

Long distances were travelled by the schools to the Science Challenge venues. Most schools had to leave at the crack of dawn and arrived back late, but tired and happy, after an exciting and fun-packed day. Susan Pawsey from Swayne Park School, a specialist Science College in Essex has written to say, *'For the last three years, a class has been called forward to Fun Days and, consequently, the Science Challenge has developed so much of a reputation that Year 6 pupils ask, when they visit us, which class they need to get into to be part of the team! Pupils from three years ago regularly come to admire their trophy and reminisce'*.

Engaging students in science in a theatrical environment is very special part of Science Challenge. Each class is asked to dramatise their science in a six-minute presentation. Often this is the first time a science teacher and/or the students have been asked to undertake such a different approach but the results are often pure magic. Liz Bell from Stony Dean School in Buckinghamshire sums up her pupils' experience. *'As you are aware, Stony Dean has pupils with severe language and communication difficulties, visual impairment and moderate learning difficulties. They are really put to the test at Science Challenge and always surprise me with their enthusiasm and effort at performing whatever they are asked to do. Thank you so much for a fantastic experience.'* Stony Dean School has taken part for the last two years and students have received higher marks than any other school in the Drama section.

New challenges for the Fun Days are devised and written each year by the Science Challenge team. These join old favourites such as Bridge'n'Balance, Flower Power and Moving Targets. Over the years, a large number of questions have been devised for the quiz, ensuring a balance between the sciences. There are six rounds in each quiz and three contestants from each school tackle multiple-choice questions, followed by interactive questions and finishing with the quick-fire buzzer round.

Gloucester produced the Science Challenge 2003 primary winner. **The British School from Wotton under Edge** with their drama, 'The good, the bad and the ugly' are featured on the front cover of this edition of *Education in Science*. Sam & Ella (the poison twins!) gave a fascinating lesson on bacteria!

Enter Science Challenge 2004 and win an all-expenses-paid Science Fun Day out for your class. To find out more, visit the ASE website at www.ase.org.uk
We look forward to receiving your entry for the 2004 Science Challenge!