

ST STEPHEN'S PRIMARY/HALCROW

BRIDGE DESIGN CHALLENGE

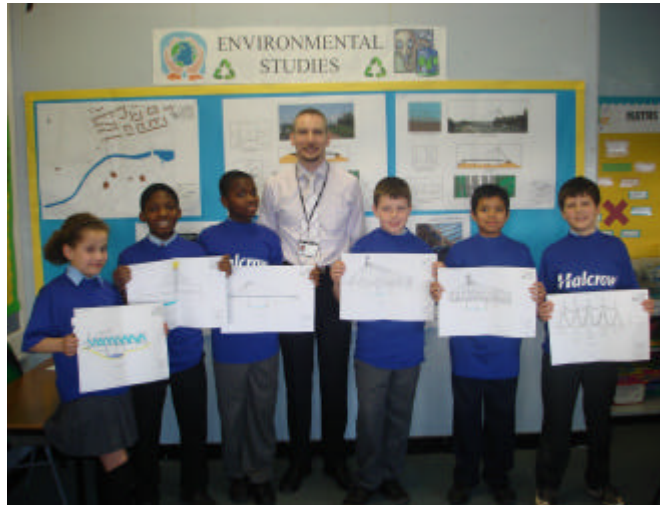
The partnership between St Stephen's Primary and Halcrow has grown from strength to strength recently, with their class of 30 Primary 7 pupils enjoying the challenge of becoming apprentice Design Engineers for Halcrow, with their **Bridge Design Challenge**.

The Challenge began on 4th October '07, with the pupils receiving a 2 hour Engineering Lecture from Colin Walker, in which they learned about various aspects of Bridge design and construction, through demonstrations of forces, strength and materials, a power point presentation of different types of bridges designs from around the World and a DVD timeline presentation of the construction of the 'Clyde Arc'. The lecture was most informative both for the pupils and the staff of the school involved.

At the end of the lecture Colin presented the pupils with drawing sheets and their Challenge – to design a new footbridge bridge to span the Clyde. The pupils were given two weeks in which to come up with an innovative design which met the criteria set and complete their designs.

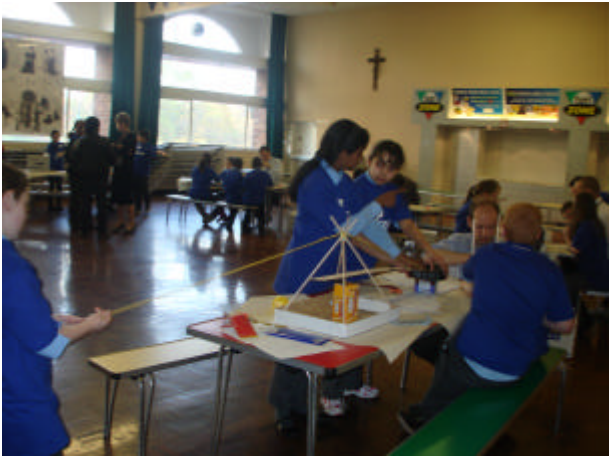
The pupils set to work referring to a hard copy of Colin's presentation and the internet to help them plan and design their bridges which were then delivered to Halcrow's office at City Park for scrutiny and judging.

Colin returned to the school on 9th November '07 to present to the pupils the 6 top winning designs. All pupils were commended individually on their design and drawing skills, receiving a Halcrow t-shirt, mug and pen. The 6 top designers also received Borders book vouchers. The winning designer was named as 'Rei Gashi'. Halcrow were most impressed with the work produced by the pupils and will display the designs in their Office.



THE TOP 6

Halcrow returned to the school once again for a morning during 'National Enterprise Week' on Thursday 15th November, with a team of 6 structural engineers, led by Colin Walker. This time the pupils were to be challenged in a practical way. The pupils were split into 6 teams, each with a 'Halcrow' team leader. The teams were given a box of construction materials including balsa wood, string and glue and a plan of a Bridge to build. The bridge designs were all based on familiar ones the pupils had studied for their drawing design challenge. Once completed the bridges would be tested to destruction using cups of sand.



The pupils rose to the challenge and worked well in their construction team to complete their Bridges.

The testing of the Bridges was their favourite part with screams of delight being heard as far away as Halcrow's office, as each bridge crumbled under the weight of the sand before their eyes. It was hard to tell who was being the most competitive at this point – the pupils or the Halcrow team leaders! It was a most fantastic morning for all. Again, Halcrow commended the pupils on their skill in following instructions, constructing the bridges and excellent team work. The pupils were awarded certificates and drawing kits.



To complete the project, Halcrow accompanied the pupils that afternoon on a site visit to the Clyde Arc itself. The pupils thoroughly enjoyed the visit and with their new-found knowledge of Bridges were able to discuss many aspects of its design.



‘THE SQUINTY BRIDGE’

This project has been most successful with many of the children now talking about pursuing a career in this Industry.

St Stephen’s Primary would like to thank Halcrow for their continued support to the school. The valuable contribution they have made to enhance the education of the pupils and the expertise brought is greatly appreciated.



THANK YOU HALCROW!