

SCHOOL NEWS

This issue sees a brief report on the feeder school liaison work being achieved in some TEP secondary schools.

Rocket Cars TEP style at Rhyl High School

A brief update from Mark Harmsworth. Mark is a GATSBY Teacher Fellow.

Some years ago when TEP 'launched' its rocket launcher it gave schools an invaluable piece of equipment that excited and encouraged pupils to get a roll tube and a nose cone fire it into the air. Now, four years later TEP have produced the alternative to the F1 challenge and a great project that can work at different age groups. Over the past year I have tried rocket cars with KS3 and 4 with an emphasis on aerodynamics, and as a transition project with our feeder primary schools. The youngest age group was with pupils from St Brigid's school in the reception and year 1 pupils.

The basic principle is the same as the rockets in that you construct the roll tube and hot glue the nose cone on. The next stage is to attach a chassis to the roll tube. You could use any material for this but I have found that foam board, corriflute or balsa wood is the best as these materials offer both strength and lightness. If you want a heavier alternative you could bend an anodised sheet into the right shape. Wheels and an axle needed to be added under the car and at a primary level the axle should be fed through a straw, which is the glued on to the bottom of the chassis.

Pupils will want to use the largest wheels possible and I have seen pupils have multiple axles and wheels thinking that their car will be the fastest. Testing is always a fun time with the pupils wanting their cars to go further and faster than their friends. With the new timing gates that were show-cased at the NEC it is now possible to do some serious calculations of speed creating some good cross curricular links with science. For safety purposes it is best to fire the cars down a line with a small hook or tube attached to the base of the car as I have seen some cars 'take off' across a hall!

All of the pupils who participated in a rocket car day on the project last summer had fun and went home enthusiastic about the subject.



CADCAM in Primary work at St Clement Danes

Martin Clarke takes us through his CAD/CAM liaison experience. Martin is a DATA Outstanding Teacher Award Winner 2006.

Transition from KS2 year 6 to Key stage 3 year 7 can sometimes be difficult especially for students with very little experience at year 6. When moving to secondary school pupils should feel a sense of understanding of the development of D&T and a notion of what to expect at key stage 3.

Three junior schools from South West Hertfordshire agreed to take part in a pilot D&T project linking key stage 2 to key stage 3. The project revolved around the use of CAD/CAM and emphasised the importance of designing. ICT was to play an important role in the project, as all pupils would have to email their final designs to me at St. Clement Danes where a laser machine would cut out their designs. The 2D acrylic shapes were taken to the junior schools along with a strip heater and the pupils created their 3D product in one morning session. The project was planned over four stages and was placed in the summer term after KS2 SATs.

Stage 1

- Meet with Head teacher from each school to explain the project idea and to go through the process and time line for the project

Stage 2

- Provide INSET for teachers who will deliver the project
- INSET based on 2D Design (junior school version). The training also covered designing skills and modelling from card. The use of the Laser cutter was demonstrated.

Stage 3

- I introduced the project to the pupils in each school.
- Teaching staff from each school began the project and developed designs using 2D design for a tooth brush holder.
- Final designs were e-mailed to me at St. Clement Danes
- Final designs were produced on the laser cutter

Stage 4

- The 2D shapes were taken to each school along with a strip heater and all pupils were shown how to use the strip heater safely.
- Pupils created their final shapes.
- Final evaluations were written in their class and e-mailed to me.

At the end of the project all work was displayed in the school hall and prizes were awarded for the most creative design. The pupils were certainly enthused by the whole activity and were very able communicators when it came to explaining their ideas and final designs.

