Air Motors: News from Rhyl High School and Turnford School

Air Motors : A New Idea in Motion from Mark Harmsworth, TEP Associate at Rhyl High School

Since the introduction of air motors to the TEP catalogue, pupils have been given a new impetus to create things that will move – or at least, this is certainly my perception.

For the current academic year, I needed a short project to set my Year 10 pupils just before the Christmas holiday and it seemed an ideal opportunity to try to build air powered boats that could be tested in the school swimming pool. After setting them the challenge to build a boat that would go the furthest distance, it felt only proper to build one myself. The workshop soon became a hive of activity, with groups cutting foam, card and any other materials they could get their hands on. (Testing at this stage was limited to the eight-foot water tank that I had built.)

Three lessons later, all of the groups were ready for the big test in the swimming pool. It soon became apparent that some of their designs were doomed to failure, but others had managed to achieve a well-balanced and sleek prototype.

Rhyl's propeller driven boats

The results of all their hard work paid off as the boats set off across the pool, with some achieving 5, 10 and even 15 metres travelling distance. Their efforts were slightly overshadowed by **'Sir's'** boat, which managed a staggering 75 metres, but I must admit that this was largely due to a much larger reservoir which utilised a 2-litre lemonade bottle, with an adaptor positioned between motor and bottle.

The pupils thoroughly enjoyed the project, with some wanting to buy more motors to experiment with at home and we are now in the process of building a delta winged aeroplane to see the potential of flight.

News from Turnford School

News & Views previously featured some of the work of Turnford School's new CAD/CAM facility structured around ten TEP milling machines.

More recently the department, headed by **John Cowgill**, has run a series of awareness days for Y6 pupils from feeder schools, and these have been judged an unqualified success. Enthusiasm was really fired up by use of the CNC machines and using the new TEP air motors to make propeller-driven vehicles.

'Air' Vehicle workshop

Although it was not possible to supply everyone with an air motor, pupils found the challenge of creating a chassis really challenging and rewarding. For ease of manufacture, 'Corriflute' was used as the main constructional material and inspired a variety of ingenious designs – as well as stunning speeds!

Turnford School is now trying out some new resources – notably the use of cheap watches as a focus for packaging projects. We hope to include an update in the next edition of News & Views.

Final race preparations

On your Marks, get set...