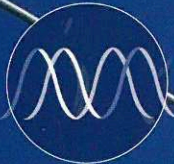


ISSUE 1 // APRIL 2006



Engineering



Non Sibi Sed Alfiis  
'Aiming at Excellence'

# TRANS- FORM

THE ENGINEERING NEWSLETTER  
FOR BALSNAWS C.E. HIGH SCHOOL

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Balshaw's - Transforming into a specialist school

**WELCOME** to our first edition of transform a newsletter which celebrates just some of the achievements and activities linked to Balshaw's status as an Engineering Specialist School. We are as busy as ever with our linked sponsors. We hope that you will enjoy reading the articles, and send any to us that you would like to include. Each edition will include news from our sponsors and links with St Andrew's and Runshaw College.

In fact the very name of this magazine - 'Transform' - was chosen by the pupils. In a competition between all the tutor groups many good names were put forward, but it was CU10 that came up with the winning title. Well done!

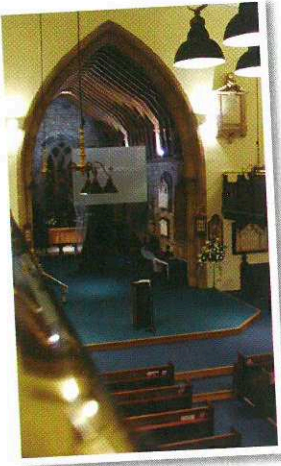
We are constantly aiming at excellence and hope that we can widen the excellent opportunities for all of our pupils through the engineering status.

Yours sincerely,

**J M Venn**, *Headteacher*



# LOCAL LINKS



**On Sunday 5th February, St Andrew's Church, Leyland held an annual Education Sunday Service, where local schools including Balshaws and church members joined together to give thanks to God for the gift of education which we enjoy.**

Dave Buckley, Youth minister at St Andrew's led a game about 'What is really worth knowing?', which was the theme of the service. Children from St Andrew's Infant School performed several of their favourite songs, and Miss Venn, Headteacher of Balshaws read the bible reading from the book of Deuteronomy. Revd Mark Simpson answered the question 'What is really worth knowing?'; telling us the bible says nothing in this world is more important than knowing God, because no one is more important.

During the service a new projection system that has recently been installed in the church building was used for the first time. The screen onto which song words and other parts of the service are projected, is state of the art, and is the first of its kind and size to be used in a church building. It is made of glass, covered by an opaque film. When the projector is not in use, electricity is passed through the film to polarise it and make the screen transparent. This means the new screen does not have a negative impact on an historic building, because when it is not in use it is almost invisible.

**As part of our on-going links with Moorhey Special School, the pupils of Year 9 come in each week, and have technology lessons with Mr Peter Woods.**

They make a variety of projects including a steady hand game, a card poster with a circuit on the back and a resistant materials project of a money box.

They enjoy coming in and Mr Woods says they are a pleasure to teach. Mr Wilson, their Headteacher, comes to see how they are getting on and Mr Woods and Miss Venn always see them collect certificates at their annual Prize Giving.





## RE DEPARTMENT

# WHAT ENGINEERING STATUS HAS MEANT TO US

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When I wrote my first bid for the Engineering money on behalf of the RE department, I was a little unsure about whether I really needed a computer projector for my room and I was worried about how difficult it would be to use.

Our bid was successful and the projector has been installed in Room 11. It has been a great success and it is used daily. I now feel that I would be lost without it.

Following this success, the RE department used their own money (raised in a variety of ways) to install a second projector in Room 7.

We then took the opportunity to bid again for Engineering money and we are delighted to have been successful and look forward to the third projector being installed in Room 12.

**“From being a reluctant ‘doubting Thomas’ I am now a convert to Engineering technology.”**

### **Engineering technology has made our lives easier in many ways:-**

- Videos shown are now much easier for everyone to see particularly if there are Sikh or Jewish subtitles
- The quality of sound has improved
- Pupils have produced Powerpoint presentations on War& Peace
- Teachers have saved time using the computer rather than writing and re-writing lessons on chalkboards
- Photographs from our visits to the synagogue and church have been shown on the screen

**Mrs Pate, Head of RE**

## A VIEW FROM A PARENT...

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The Day to Day Computer Maintenance Course was held over 2 Tuesday evenings. I have a computer with Internet access but wanted to learn more about how my computer worked and what I could do to make it run more efficiently and safely.

After attending the 2 sessions I came away feeling a lot more confident about where to find things, updating systems and keeping my computer healthy!!!

Many thanks to Rick Howarth and Diane Tomes for their excellent course content and reference booklet. I can certainly recommend the course to future participants.

**Mrs Holland**



# MATHS DEPARTMENT INTERACTIVE CHANGES

The main change for the mathematics department has been the introduction of Interactive Whiteboards in all 6 classrooms in the department.

The department have also purchased a set of 16 laptops with engineering money and are currently awaiting the delivery of 16 more. These are wireless

network laptops that allow them to be taken into each of the 6 rooms for pupils to use within the context of their normal maths lesson.

The department have employed a Maths Assistant, Laura Rhodes, who has worked with us for the last 14 months. She has undertaken a wide variety of tasks, eg. Class support, withdrawal of pupils from class that need extra support, preparation for events, admin, SAT analysis, etc.

## ACTIVITIES

### Maths Transition event: June 28th /29th June 05

Year 6 Pupils from the Methodist school visited the department for one of the 2 mornings to take part in a series of activities relating to the theme of 'The Beach'. They worked in small groups on each activity and received certificates at the end of the session.

EG. They had to solve how to best get a family across to an island in a dinghy under certain constraints about who could travel together.

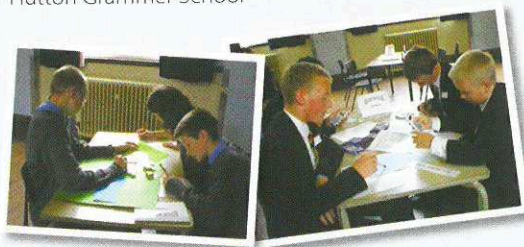
They had to programme a 'roamer' to get various beach items without hitting the bad areas on a map.



### Year 9 Maths able & talented Challenge

Schools from South Ribble were invited to send a team of 4 pupils to enter this challenge. Eight teams took part in the afternoon's events. The teams worked on a series

of puzzles before the winning school was declared – 'Hutton Grammer School'



### MathFest- December 13th 2005

Pupils in year 7 and their families were invited to test their maths skills with a range of Christmas puzzles and activities on Tuesday evening.

The evening festivities started with a maths trail around the school. The answers to questions led the families to different rooms in the school and a clue to the hidden message.

After this they had to collect a star for each puzzle that they solved. Winners at the end of the night were Sam Hogg and his family. A great time was had by all.





# THE ARMY, A HELICOPTER AND A HOT AIR BALLOON

If you visited Balshaw's last year on the 28th April you would have found a very strange looking school indeed! The occasion was the celebration of the school's specialist status, and many guests were invited.

## Strange sites included;

- The Wigan Athletic team coach blocking the main drive.
- A police Tactical Response Vehicle or 'riot van' as the policeman called it to deal with any trouble!
- A fire engine and its crew parked outside the boys toilets that had to leave on an emergency call mid-morning with siren blaring.
- A helicopter that flew on and off the cricket pitch all morning to take selected pupils, and staff, on a flight around south Lancashire.
- A hot air balloon that arrived towards the end of the morning. The high winds and helicopter meant that it was safer for it to stay on the ground!
- The British Army set up camp across the front of school and worked with Y10, teaching them

to fire a surface to air missile (simulated!)

- 2 classic lorries from Leyland Transport Museum lined up with a brand new 3.5 tonne lorry loaned to us for the day by Leyland Trucks.
- Lancaster University and Runshaw College Engineering departments had displays and answered the enquires from inspired young people.

In class all round school pupils were enjoying a special timetable that had lessons based on the theme of the day, 'transport'. Maths pupils puzzled over a problem involving velocity, angles and a small toy car. Science had pupils playing in water looking at the principles of hull design

Joining us for the day was a group of Moor Hey pupils along with Mr Wilson, their Headteacher. They had such a good time around the displays they never made it to the lessons organised for them by Mr Woods

Everyone had a good time and left knowing for certain that Balshaw's was a Specialist School in Engineering and that meant FUN.





NUCLEUS

# SCIENCE NEWS

## OH I DO LIKE TO BE BESIDE THE SEASIDE!

SCIENCE CLUB BLACKPOOL TRIP OCTOBER 2005

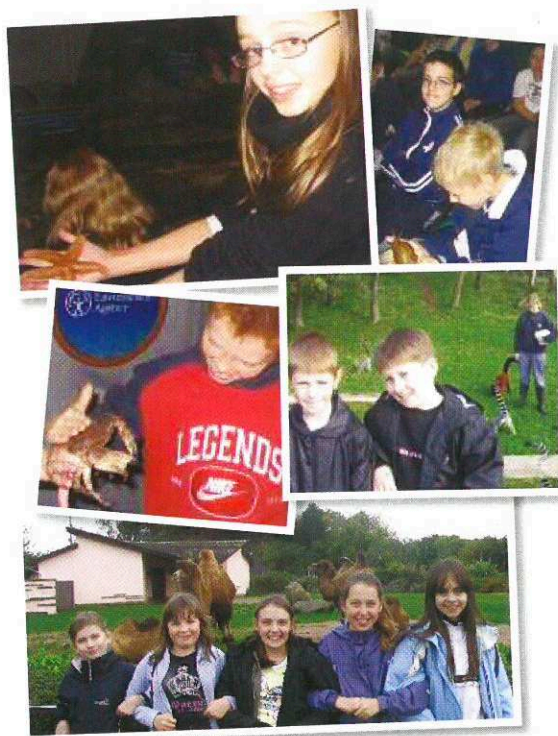
The first port of call for the Year 7 and 8 Science Club pupils was the Sea Life Centre, where pupils got hold of jellyfish, crabs and walked in the tunnel of death underneath the sharks!

After lunch we paid a visit to Blackpool Zoo where sea lions performed tricks, lemurs ran everywhere and the pelicans caught fish in their huge bills. There was even a chance for pupils to hold cockroaches, giant snails and snakes, in the creepy crawly show. Finally after a tiring day, a leisurely journey through Blackpool's famous illuminations topped it all off nicely!

**Want more information about this trip?**

**Want to see more pictures?**

Then visit our website. [www.balshawshigh.co.uk](http://www.balshawshigh.co.uk) and click on SCIENCE!



### DID YOU KNOW...

At Balshaw's there are projectors and wireless computer equipment in 4 of our 6 labs. This means interactive Science games, videos, exciting demonstrations and live linkups to museums and universities around the country!



# SCIENCE CLUB NEWS!

EDITOR; GRAHAM CLARKE - YEAR 7



Hi everyone & welcome to the first issue of Science Club News. Find out what's been happening in Science Club and how YOU can take part.

Think you could build a parachute? Well that was the task given to the brainiacs of SC recently. The idea was to safely transport an egg down a 10 foot drop! The winners were Samantha Yates and Charlotte Richmond who designed a very simple but very effective parachute! Eggscellent!

During National Science Week (March 10th-19th 2006), the Science Club hosted a "Bring Your Parents to Science Lessons" Evening.

We had to introduce our parents to scientific techniques such as Chromatography, Flame Tests and using microscopes in order to solve the mystery of the "Murder of Lady Poncenby Snotsalot. It was a great evening!

# LAB IN A LORRY!



36 Year 10 students visited the "Lab in a Lorry" when it came to Chorley in January 2006.

They discovered how sound can make wine glasses shatter, how we dig for oil, and saw a fantastic light show.

The whole trip was kindly paid for by the Institute of Physics who aim to promote Physics in schools around the country: [www.iop.org](http://www.iop.org)

For more pictures from the trip, visit our website: [www.balshawshigh.co.uk](http://www.balshawshigh.co.uk)

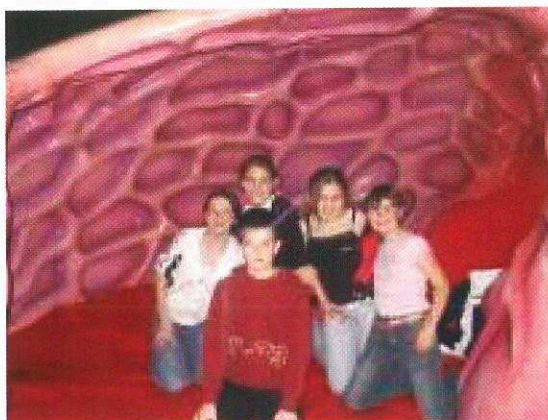
## DID YOU KNOW...

The Science Department now has a dedicated Science Support Assistant to help students get the most out of their lessons.





Richard, Dale and Lewis find out about burps and belches!



You can fit a lot of people into this small intestine!

# EERGH GROSS!

In December 2005, 100 Year 8 pupils visited the Manchester Museum of Science and Industry to see the "Grossology" exhibition.

They found out what makes snot and bogies, how we burp and crawled across the skin wall - complete with boils, pimples and warts! Then Healthy

Harriet and Gary Gas took them on a tour from the Supermarket to the Sewer! It was utterly gross but lots of fun was had by all!

For more photos or information about the exhibition visit our website: [www.balshawshigh.co.uk](http://www.balshawshigh.co.uk) and click on Science.

## AMAZING FACT!

In Science at Balshaw's we are introducing state of the art **DATALOGGING** equipment. Want to know how fast your cup of tea cools down? Want to find out your heart rate at the click of a mouse? Coming soon to a laboratory near you!

## COMPETITION TIME

To be in with a chance of winning this issue's fantastic prize, answer this question;

**Hg is the chemical symbol for which element?**

Send your answers to [science@balshawshigh.co.uk](mailto:science@balshawshigh.co.uk)

## FUTURE EVENTS INCLUDE...

- **Year 10 Science at Work**  
visit to Burnley Football Club
- **Year 9 Science Trip** June 06

## AND FINALLY...

Our newsletter contains only a taste of the events trips and details of new facilities in our department. For much more, visit us at [www.balshawshigh.co.uk](http://www.balshawshigh.co.uk) and click on Science



# ROTARY CLUB TECHNOLOGY TOURNAMENT

On Friday 3 March 2006 Balshaw's High School took part in a Rotary Club Technology Tournament at the Leyland Civic Centre in Leyland. Balshaw's was one of over 278 teams competing throughout Lancashire and Cumbria.

Balshaw's entered two teams, a Year 9 team consisting of Lauren Anthony, Charlotte Cheng, Peter Bird and Ross Whittle and a Year 10 team consisting of Leah Broadbent, Lisa Hutson, Daniel Zakavica and Nick Elsby.

Each team had to solve a Design and Make Test Challenge within a limited time. This year the task was to make a beacon with a flashing light on the top. The beacon also had to carry an advertising billboard for BAE Systems who were the major sponsors of the tournament. The Year 9 team had to make the light flash whilst the Year 10 team were given a greater task of having to make the light flash at least 10 times. The teachers were also put into teams

and their challenge was to make the light flash at least 10 times and at a frequency of one flash per second.

All teams had to produce a design portfolio and were assessed on planning and team work as well as their practical solution. Our Year 9 team did very well and produced a neat folder and a working model but just missed out on the winning places. Our Year 10 team produced a super model where the beacon flashed 33 times which was the best design and won first place and a cup for the school.

Our teachers team were also successful in winning first place. It was a very enjoyable day for all and the teams from all schools congratulated each other on their success.

**We look forward to next year's challenge!**



## 'RIPE FOR DEVELOPMENT' THE DESIGN & TECHNOLOGY BLOCK

Everybody involved with Balshaw's knows that the best way to describe the D&T block is 'ripe for redevelopment'. The building itself is sound and with some imaginative design work and planning, the interior of the new block will both inspire and challenge the pupils of the future. The building work is intended to start in May for completion for the new school year.

Pupils arriving bright eyed and bushy tailed in September will find a very different D&T block. ICT will be at the centre of each workshop with each having an interactive

whiteboard, 6 PCs, printer, scanner, web cam and computer aided manufacturing facilities. Everything will be new or refurbished, from lighting to flooring, chairs to cupboards, fridges to cookers. The only thing the same will be the teaching staff who will all have a smile on their faces as they have looking forward to this day for many a year.

With the new facilities the D&T department intends to build on their already excellent results and encourage pupils to go further and achieve even more.



## DRAMA DEPT.

# WHAT IS A PYLON, MISS?

The links between Drama and Engineering are perhaps not as obvious as the links between, say, Maths and Engineering but they do exist.

A Year 8 pupil studying the play 'The Terrible Fate of Humpty Dumpty' recently asked me the question: 'What is a pylon?' In the opening scene a boy, who is being bullied, climbs up a pylon to retrieve a frisbee on the orders of the bully. The boy is electrocuted and dies. Some of the class knew what a pylon looked like and could draw it. Some pupils knew its function and some could explain the dangers. We discussed the problems with staging the scene and decided that it would be too difficult and expensive to construct a pylon on stage and it would be just as dramatically effective if the gang of children gazed upwards and the stage lights were flashed on and off to indicate when the boy is electrocuted.

I suspect that the more obvious links between Engineering and Drama are the pieces of hardware

which the extra money from the Engineering bid enabled us to purchase.

### These include:

- The new computerised portable lighting system will enable us to stage the death scene in 'The Terrible Fate of Humpty Dumpty' more effectively.
- The digital camera will enable the GCSE pupils to add more digital photographs to their file of theatre make-up design work.
- The smoke machine will help us to create a tenser, more mysterious atmosphere in the scene in Capulet's tomb in the final part of our school production of 'Romeo and Juliet'.
- The overhaul of the hall lighting system will enable us to light our plays more effectively and creatively.

However, what drama and engineering more fundamentally have in common, in an educational context, is that they both teach pupils how to look at the world closely and understand it better.

**Mrs Whittam**

## ROMEO & JULIET... IN 60 SECONDS?!

In the run up to Balshaw's recent production of 'Romeo and Juliet', a BBC camera crew was seen visiting the school! Drama students took part in the BBC's national Shakespeare in 60 Seconds project – aimed at boosting young people's interest in the famous Bard. Inspired by the recent TV series of Shakespearean tales with a modern twist and helped by a BBC crew, staff and pupils created a minute long film summarising the essence of the

play which was being performed at the school. Mrs Whittam, Head of Drama, said "It was a fantastic day for everyone. The project makes Shakespeare more accessible to younger generations, and the pupils really enjoyed the filming."

**To see the film for yourself visit** [www.bbc.co.uk/drama/shakespeare/60secondshakespeare/watch/](http://www.bbc.co.uk/drama/shakespeare/60secondshakespeare/watch/)





# GCSE ENGINEERING AT RUNSHAW

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There are currently three year ten pupils and three year eleven pupils from Balshaw's High School taking the GCSE Engineering Course at Runshaw.

This involves attending college for one half day per week for two years where they carry out a number of assignments and activities which are used to build up their portfolios. The course includes a design unit, which covers the development of a design solution to satisfy a customer brief. This involves the use of computer aided design software, a practical unit involving the manufacture of an engineered product using a range of processes, tools and equipment, and a technology unit which investigates the impact of modern technology on the design and manufacture of a range of products in different engineering sectors.

The snaps show Dominic Henry, Simon Ward and Christine Beardsworth from year 11 working on a project at Runshaw using their facilities.

## INTERVIEW PRACTICE FOR YEAR 11

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On 14 February members of the Leyland Rotary Club and friends of the school including a number of Engineers, Business Men, Accountants etc came into school to hold Mock Interviews with our young people. This gave a fantastic opportunity for Year 11 to have a trial before their interviews for College Courses, apprenticeships and jobs.

All who interviewed the pupils said how well they had prepared and congratulated them on their appearance and manner. Robin Raimond a local engineer feels that there are some excellent young people just about to enter the world of work. Thank you to the Careers Department for organising this.



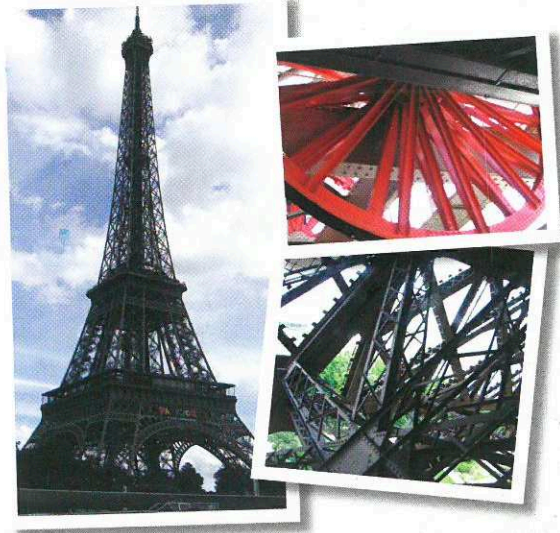
## LANGUAGES DEPARTMENT

# EIFFEL TOWER VISIT

In July 2005, during the Year 8 trip to France, pupils had the opportunity to visit the Eiffel Tower and take the lifts to the top, where they had a wonderful view of Paris.

The cost of visiting the Tower was met by Engineering Status. The pupils had previously learned about the history of the Tower, but when they actually saw it they were amazed at how such a complex structure had been built. Going around the Tower they were able to find out more about how it was constructed, and, particularly during the ascent in the lift through the centre of the Tower, they could see the structure in detail.

Pupils were then given the task of producing "Images of the Eiffel Tower", either through photos, sketches or collages, whichever they felt best depicted this great feat of



engineering. The best entries have been displayed in school.

The Eiffel Tower is an iron tower in the Champ de Mars, Paris, built between 1887 and 1889 to the design of the French engineer Gustav Alexandre Eiffel, who lived from 1832 - 1923. He built it for the Exhibition of 1889 and it is 984 feet high.

## BALSHAW'S - TRANSFORMING INTO A SPECIALIST SCHOOL

It has been almost 2 years since we became a Specialist School in Engineering and there have been many changes. The money the government gives us, £120, 000 a year, has transformed lessons. Around school new classrooms, facilities and equipment have all been provided.

### They include:

- £100 000 towards our hi-tech Electronics workshop and computer suite.
- Interactive whiteboards, projectors and PCs in Maths, Science, RE, English, Geography and MFL.
- 2 portable sets of 16 wireless laptops for Maths, used in any classroom.

- Computer aided manufacturing facilities in Design and Technology that includes a £13,000 laser cutter, capable of cutting 10mm plywood.
- 20 flat screen state-of-the-art PCs for Design and Technology.
- A school network server to cope with the increased demand for ICT.

Other departments to benefit from equipment provided by specialist school funding include PE, Art, Music and Drama.

Money isn't everything, but it helps! And it has made a big difference to the learning experience at Balshaw's.

Mr Melling