



SHROPSHIRE STEM NEWSLETTER 09

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ENGINEERING CLUB SAILS TO SUCCESS!

During this summer term, Richard Clements ran another boating theme challenge with his engineering club at Stokesay Primary School.

Last year he ran a challenge to design a sailing boat to be tested in a 3 metre water trough borrowed from Shropshire Stempoint's equipment resource at Enginuity

This year, the challenge was to construct a catamaran to race down the troughs again to see which design was the most successful. Richard organized the club with great enthusiasm and all of the children involved worked really well. Last year's finale, happened to be viewed by visiting Ofsted inspectors, who commented on the vitality and motivation of all involved. This year's finale proved to be just as entertaining.

Phil Smith from Shropshire Stempoint presented Richard with a certificate from STEMNET recognizing his dedication and input to the Ambassador programme. The children surprised Richard by presented him with a thank you gift for all his help over the term.

Plans are already underway for the next project ,again explaining a powered boat theme.

Well done to Richard and all of the South Shropshire Ambassadors for all their input to enhancing and enriching the curriculum.



COALBROOKDALE 300 YEARS CELEBRATION!

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CRASH TEST GLIDERS

Enginuity saw the trialling of a new workshop during November with the help of STEM Ambassadors from DCAE Cosford. The workshop was all about the science and mechanics of flight and involved 180 Yr 7 students from Abraham Darby Academy as the test pilots for the project. The day started with an introduction to gliders and their history by the Curator of The Assault Glider Trust at RAF Shawbury, and included film footage



of gliders in action during the Second World War as a taster of what was to follow. The students were tasked with designing and building a 6 metre long glider that could carry a 4kg payload the furthest distance. They were provided with simple materials such as willow and hazel lengths, string and bin bags. They were supported by a team of STEM Ambassadors from DCAE Cosford who offered advice and aeronautical expertise, as well as adding real-life context to the activity.

At the end of the day there was an awe-inspiring final, where the gliders were launched from a height of 10 metres to see which one would fly the furthest. The winner managed a flight of over 20 metres.



“The workshop exceeded all expectations - the level of engagement was outstanding for the whole year group which included a range of abilities”

(Jeremy Brown, Creative Partnerships)

ALL ABOARD!!



September 17th was another termly meeting of Ambassadors. On this occasion the venue was The Engine House, a new and exciting educational centre at Highly, on the Severn Valley Railway.

The centre has a fascinating display of engines and artefacts on loan and from the railways' own collections. After a very pleasant catch up of news from the Ambassadors present and a hearty buffet, we were fortunate to have a guided tour of the centre by the manager Mr. David Mee. This was extremely interesting and helped to put the importance of the railway into context.



Thanks to all for who attended and made the evening such a success.

100th STEM AMBASSADOR FOR SHROPSHIRE

Shropshire has just received its 100th application to be a STEM Ambassador.

100

This is great news for schools in Shropshire as there is an even larger resource of knowledge and expertise available to them. Shropshire has seen a big increase in applications to be STEM Ambassadors this year which shows that the awareness of the STEM programme is also increasing. This would not be possible without the brilliant work undertaken by active Ambassadors across the region.



It only seems like yesterday that the doors first opened at the National Design and Technology Education Centre at Enginuity in Coalbrookdale. However the 7th birthday was celebrated in style by a series of “Thrust Forces” shows for the visiting public based around the theme of Birthdays. This involved a range of energy transfer demonstrations presented in a fun and entertaining way. They were enthusiastically welcomed by the audience, with lots of comments from parents and children about how much fun science can be. Further shows were performed in Shrewsbury as part of the Fun Day Monday activities held throughout the summer holidays. These also received great reviews and it is hoped to continue development of exciting public shows in the future.



Well done to all of the Ambassadors who helped put together and deliver these shows.

DON'T FORGET THAT YOUR AMBASSADOR STATUS ALLOWS YOU FREE ENTRY TO THE IRONBRIDGE GORGE MUSEUMS!!

Science and Engineering Ambassadors



Welcome to all new Ambassadors who have joined the programme this year. Thank you for dedicating your time and knowledge to assisting projects in schools and after school clubs. It makes such a difference to the children’s learning potential having people to help who have the skills and expertise. Well done to everybody who is engaging with activities around Shropshire. To date there have been over 280 different activities involving Ambassadors so far this year.

As you may have noticed, the Ambassador programme has been re-branded this year. As from the start of May SEAs became STEM Ambassadors to incorporate the role of Mathematics and Technology. At the same time the STEMNET website, literature and badges were all re-branded, incorporating the new logo, with its prism and vibrant colour palette to catch the eye. In the future there will be street advertisements and publicity campaigns to promote the STEM Ambassadors programme to schools. New badges and ID cards are now available.



**SHROPSHIRE STEM FACT:
102
ACTIVITIES COMPLETED INVOLVING AMBASSADORS SINCE JANUARY 09**

Schemes in Action

The STEM programme aims to help schools and colleges enhance and enrich the national curriculum for science, technology, engineering and mathematics. We offer advice and guidance on a wide range of STEM activities and schemes, including the STEM Ambassador programme. As there are an increasing number of schemes available to schools, it is part of our role to find the initiatives that are best suited to meeting teachers' specific needs. We therefore welcome any feedback from teachers on activities they have been involved in. One scheme which has seen increased participation in Shropshire is the "Jaguar Maths in Motion".



This is a competitive challenge, with the opportunity for regional winners to qualify for national finals. Although the scheme had quite a slow uptake initially in the county, this year has seen a large growth in participation.



With further feedback on other schemes, it is hoped that in the future these will also see a growth in participation too.

D&T Loans Boxes

We are in the process of developing School Loans Boxes linked to each of the Primary Design & Technology QCA Units of Work. At present we have six boxes available for Loan. These are administered by the Shropshire School Library Service (for a fee of £15) and loaned to schools on a half termly basis. The Shropshire School Library Service ensures that the boxes are accessible to all schools in the region, by delivering them for collection to the nearest county library.

For more information contact the Shropshire School Library Service
Tel: 01743 255035 email: sls@shropshire-cc.gov.uk

Medical Technology box

A free loan box that has been developed by Staffordshire SETPOINT to link medical technology to the 14-19 curriculum across a range of subjects. The resource contains a range of data logging/diagnostic equipment linked to pupils' activities, including a computer control interface for systems and control activities in the context of medical devices.

For more information and to book the resource, contact Mel Weatherley:
01952 435903 or email mel.weatherley@ironbridge.org.uk

James Dyson D&T/Engineering website and resources

Access a wide range of free and easily accessible resources - including the Education Box, a disassembly and product analysis tool containing a Dyson DC22 and parts. There is also a new selection of educational videos to download online and a design engineering Teacher's Pack that can be integrated into lessons. Visitors will also discover what designers inspire James Dyson - in Design Heroes; what is involved in engineering - in the Design Process; and learn about what it's like to be a Dyson engineer.

To access the resources visit the website: www.jamesdysonfoundation.com

UPCOMING EVENTS

The annual Egnuity STEM FAIR will take place again on the 6th March 2010, following on from last year's successful event. All Ambassadors, teachers and their families can gain free entry. It is a great chance to see the variety of STEM enhancement and enrichment activities available to schools in Shropshire. You can also talk to the people who deliver the activities, as well as getting involved with some hands on fun too!

