



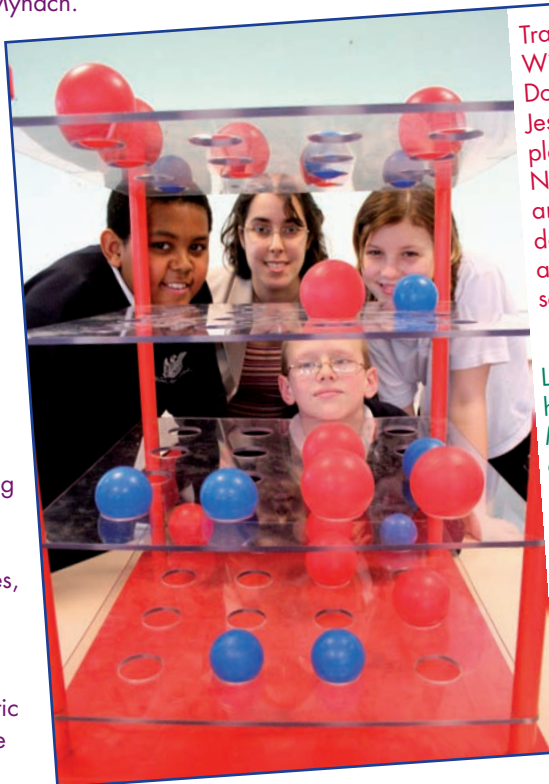
mathcymru on the road again

Since the last newsletter we have been out and about running roadshows in various locations. In January we returned to Newbridge Comprehensive, where we spent a great week working with Year 7 pupils, and also pupils from the local primaries: Abercarn, Crumlin, Cwmcarn, Panside, Pentwynmawr, Ty Newydd, and Waunfawr, who helped us to solve the mathematical mystery of who stole the top secret X-cubes. Coordinating teacher Jan Beet, from Pentwynmawr Primary, said "The children thoroughly enjoyed working through the challenges and were very positive about the sessions. The activities strengthen the positive attitude to maths that we try to develop and allow teachers to identify gaps in children's learning." This was backed up by the following quotes from her class:

- "It was so much fun"
- "Solving the mystery was good because you needed your brain to work out the problems"
- "I really enjoyed the investigations"
- "I really enjoyed the activities but most of all I enjoyed the hard challenges"

Still in January we spent a day at Cwmdare Primary school entertaining the pupils with the Maths Detective show, and then we took a selection of hands-on activities to Trinity Fields Special School in Ystrad Mynach.

In March we travelled to Swansea, and spent a week at Daniel James Community School. As in Newbridge, we worked with local primary schools, Blaenymaes, Cadle, Clase, Clwyd, and Portmead, who came up to the 'big school' to engage with the hands-on games and puzzles, and solve the mathematical mystery. We also spent some fantastic puzzle-solving time with pupils from Daniel James. Later that month we were at the Allt-Yr-Yn Campus of the University of Wales College, Newport. We were here at the request of Maths teacher trainees from the college, who brought along pupils



Trainee teacher Leila Gatrad helps Willows High School students, Donovan Weise, Mathew Ali and Jessica Stickwell understand maths by playing a three-dimensional version of Noughts and Crosses. "I enjoy maths and science and it's nice to have a day out of school to do all these fun activities and learn at the same time," said 13 year-old Donovan.

Leila Gatrad, athrawes dan hyfforddiant, yn helpu Donovan Weise, Mathew Ali a Jessica Stickwell, disgyblion yn Ysgol Uwchradd Willows, i ddeall mathemateg trwy chwarae fersiwn tri dimensiwn o'r gêm Seroau a Chroesau. "Dw i'n mwynhau mathemateg a gwyddoniaeth ac mae'n braf cael dod am ddiwrnod o'r ysgol i wneud yr holl weithgareddau hwyliog yma a dysgu ar yr un pryd," meddai Donovan sy'n 13 mlwydd oed.

mathcymru ar y lôn eto

Ers y cylchlythyr diwethaf, rydyn ni wedi bod ar grwydr yn cynnal ein sioeau teithio mewn sawl lle gwahanol. Ym mis Ionawr fe aethon ni'n ôl i Ysgol Gyfun Trecelyn, lle cawsom wythnos wych yn gweithio gyda disgyblion Blwyddyn 7, ynghyd â rhai disgyblion o ysgolion cynradd lleol: Abercarn, Crymlyn, Cwmcarn, Panside, Pentwynmawr, Tŷ Newydd, a'r Waunfawr, a fu'n ein helpu i ddatrys y dirgelwch mathemategol o bwy oedd wedi dwyn y ciwbiau X cyfrinachol. Meddai Jan Beet, athrawes gydlynu yn Ysgol Gynradd Pentwynmawr, "Roedd y plant wrth eu boddau'n gweithio trwy bob her a osodwyd iddyn nhw ac roedd pawb yn gadarnhaol iawn ynghylch y sesiynau. Mae'r gweithgareddau yn atgyfnerthu'r agwedd gadarnhaol tuag at fathemateg rydyn ni'n ceisio ei datblygu, ac maen nhw'n gyfle i athrawon adnabod ble mae'r bylchau yn nysgu'r plant".

Cadarnhawyd hynny gan y dyfyniadau hyn o'i dosbarth:

- "Roedd e'n gymaint o hwyl"
- "Roedd datrys y dirgelwch yn dda achos bod angen i chi ddefnyddio'ch ymennydd i ateb y problemau"
- "Roeddwn i wedi mwynhau'r ymchwiliadau'n fawr iawn"
- "Fe wnes i fwynhau'r gweithgareddau yn fawr ond yn fwy na dim fe wnes i fwynhau'r tasgau anodd".

Hefyd ym mis Ionawr fe dreulion ni ddiwrnod yn Ysgol Gynradd

Cwmdâr yn diddori'r disgyblion â'n sioe Ditectif Mathemateg, ac wedyn aethon ni â detholiad o'n gweithgareddau ymarferol i Ysgol Arbennig Trinity Fields yn Ystrad Mynach.

Ym mis Mawrth fe fuon ni draw yn Abertawe, lle treuliodd wythnos yn Ysgol Gymuned Daniel James. Fel yn Nhrecelyn, fe fuon ni'n gweithio gyda'r ysgolion cynradd lleol, Blaen-y-maes, Cadle, Y Clâs, Clwyd a Portmead, a ddaeth draw i'r 'ysgol fawr' i roi cynnig ar y gemau a'r posau ymarferol, a datrys y dirgelwch mathemategol.

Treuliodd amser gwych hefyd yn datrys problemau gyda disgyblion o ysgol Daniel James. Yn ddiweddarach yn y mis hwnnw roedden ni ar Gampws Allt-yr-Ynn o Goleg Prifysgol Cymru, Casnewydd. Roedden ni yno ar gais myfyrwyr o'r coleg a oedd yn hyfforddi i fod yn athrawon mathemateg. Roedden nhw

It's not just 'triffic' it's Scientriffic: Wrexham Science Festival 2006.

It's not just 'triffic' it's Scientriffic!

This year's Wrexham Science Festival hit all the right spots again. The new Maths Challenge Kit was on show on the mathcymru stand, and was a great success.

Amidst all the competing attractions, visiting families were completely immersed in the puzzle-solving challenge. One visitor, David Thomas, who arrived with his wife and three children, was very enthusiastic -

"What a nice surprise to find that maths-based activities, especially ones that my children enjoy, can be so much fun. My 12 year-old daughter has just beaten me at one of the puzzles!"

Maths Challenge Kit outreach

The mathcymru Maths Challenge outreach kit is currently based in Wrexham, where our colleagues at Techniquet@NEWI are coordinating the loan of the kit. The Maths Challenge Kit consists of 11 hands-on maths exhibits with associated teacher notes that include full descriptions and suggested follow-up classroom activities.

Although the puzzles and games are fun for any ages, the associated teacher notes have been specifically developed to link to the maths curriculum for Key Stage 2. Even so, while on trial in NW Wales they were successfully used not just in primary schools but also at transitional events in some secondary schools.

Awareness raising events and Continuing Professional Development (CPD) courses are now being organised, and any schools in the NE Wales area who are interested in finding out more should contact gareth@techniquet.org



Nid yn unig mae'n 'wych' mae'n Wyddonwch: Gŵyl Wyddoniaeth Wrecsam 2006.

Unwaith eto eleni, fe gyrhaeddodd Gŵyl Wyddoniaeth Wrecsam yr uchelfannau. Roedd y Pecyn Her Fathemateg newydd i'w weld yno ar stondin mathcymru, ac roedd yn llwyddiant mawr. Ymysg yr holl atyniadau cystadleuol, cafodd teuluoedd a ymwelodd â'r ŵyl ymroi'n llwyr i'r her ddatrys problemau. Roedd un ymwelydd, David Thomas, a ddaeth yno gyda'i wraig a'u tri plentyn, yn frwd dros ben - "Dyna syndod pleserus oedd gweld bod gweithgareddau mathemategol eu naws, yn enwedig rhai mae fy mhlant yn eu mwynhau, yn gallu bod yn gymaint o hwyl. Mae fy merch 12 oed newydd fy nghuro i ar un o'r posau!"

Cynllun allanol y Pecyn Her Fathemateg

Mae pecyn allanol Her Fathemateg mathcymru ar hyn o bryd wedi'i leoli yn Wrecsam, lle mae ein cydweithwyr yn Techniquet@NEWI yn ymwneud â'r gwaith cyd-drefnu. Mae'r Pecyn Her Fathemateg yn cynnwys 11 o eitemau mathemateg ymarferol, ynghyd â nodiadau athrawon sy'n cynnwys disgrifiadau llawn o bob eitem a hefyd awgrymiadau ar gyfer gweithgareddau dilynol yn yr ystafell ddosbarth. Er bod y posau a'r gemau yn hwyl i bawb o bob

oedran, datblygwyd y nodiadau athrawon yn benodol i gysylltu â'r cwricwlwm mathemateg yng Nghyfnod Allweddol 2. Fodd bynnag, yn ystod y treialu yng ngogledd orllewin Cymru, gwelwyd eu bod yn llwyddiannus nid yn unig mewn ysgolion cynradd ond hefyd yn ystod digwyddiadau trosiannol mewn sawl ysgol uwchradd.

Rydym wrthi yn trefnu digwyddiadau codi ymwybyddiaeth a chrysiâu Datblygiad Proffesiynol Parhaus (DPP) ar hyn o bryd, a dylai unrhyw ysgol sydd â diddordeb mewn dod i wybod mwy gysylltu â gareth@techniquet.org

Wales Maths Week Wythnos Fathemateg Cymru

9-13 October 2006

Preparations are already underway for the week-long jamboree of mathematics that is Wales Maths Week. Once again mathcymru will be distributing small grants to schools and organisations so that they can run their own maths week events, and applying for these couldn't be easier: just visit the mathcymru website (www.mathcymru.org) and follow the link to the online application form. Fill it in and email it back to us, and we will then contact you once we have allocated the funds.

9-13 Hydref 2006

Mae'r paratodau ar y gweill eisoes am wythnos gyfan o hwyl a sbri mathemategol sef, wrth gwrs Wythnos Fathemateg Cymru. Eto eleni bydd mathcymru yn dosbarthu grantiau bychain i ysgolion a mudiadau er mwyn eu helpu i gynnal eu gweithgareddau eu hunain mewn cysylltiad â'r wythnos fathemateg. Does dim byd haws na chyflwyno cais: dewch draw i wefan mathcymru (www.mathcymru.org) a dilynwch y ddolen gyswllt i'r ffurflen gais. Llenwch ac e-bostiwch hi'n ôl i ni ac wedyn fe gysylltw'n ni â chi cyn gynted ag y byddwn ni wedi gallu dyrannu'r cyllid.

Maths Inspiration

23 March saw three former prestigious Wales Maths Week lecturers gathered together on the same stage for the Cardiff leg of the UK Maths Inspiration tour. Starring David Acheson, Rob Eastaway and Colin Wright it was held in the wonderful Reardon Smith lecture theatre in the National Museum. Over 270 local (and some from as far away as Bath) sixth form maths students attended the talk, which was sponsored by Admiral, and thoroughly enjoyed learning all about electric guitars, juggling and tricks with probability. All in all it was a very interesting slant on mathematics from some very gifted maths presenters. Let's hope that the organisers can run a similar event again next year.

Ysbrydoliaeth Fathemategol

Ar y 23ain o Fawrth, daeth tri o gyn-ddarlithwyr adnabyddus Wythnos Fathemateg Cymru at ei gilydd ar yr un llwyfan ar gyfer cymal Caerdydd o daith Ysbrydoliaeth Fathemategol o gwmpas y Deyrnas Unedig. Y sêr hyn oedd David Acheson, Rob Eastaway a Colin Wright, a chynhaliwyd yr achlysur yn theatr ddarlithio hyfryd y Reardon Smith yn yr Amgueddfa Genedlaethol. Mynychodd mwy na 270 o fyfyrwyr mathemateg chweched dosbarth (rhai o gyn belled â Chaerfaddon) y sgwrs, a noddwyd gan gwmni Admiral, gan fwynhau dysgu pob math o bethau am gitâr trydan, jyglo a thriciau gyda thebygolrwydd. Rhwng popeth roedd yn ogwydd diddorol ar fathemateg gan gyflwynwyr mathemateg hynod fedrus. Gobeithio y gall y trefnwyr gynnal digwyddiad tebyg eto'r flwyddyn nesaf.

Mathamagic

12 June - 7 July

Techniquet, Stuart Street, Cardiff CF10 5BW

Mathamagic is a unique experience in practical mathematics to encourage KS3 pupils to explore maths.

The visit includes:

The Mathamagic exhibition with its stimulating puzzle-solving and thought-provoking activities.

The Mathamagic presentation:

What are the chances of winning the lottery?

How do computers store and transmit information?

Find out the maths behind tricks and illusions.

This entertaining presentation includes the following topics: probability, algebra, computing, binary numbers, topology, shape and mental arithmetic delivered in a fun and interactive format.

Mathamagic contains activities to illustrate the key

Numbers *siâp*
Puzzles *unboç*

ideas about number, shape, space and measurement that are linked to the National Curriculum for Mathematics.

To make a booking:

The cost per pupil is £4.30, with free admission to accompanying teachers. Please contact Techniquet's Booking Secretaries on **029 20 475 476**.

Mathamagic

12 Mehefin - 7 Gorffennaf,

Techniquet, Stryd Stuart, Caerdydd CF10 5BW

Mae Mathamagic yn brofiad unigryw mewn mathemateg ymarferol a'i nôd yw ysgogi disgyblion CA3 i archwilio mathemateg.

Mae ymweliad yn cynnwys:

Yr arddangosfa Mathamagic gyda'i gweithgareddau sy'n hogi'r meddwl a'i phosau sy'n her i'w datrys.

Y cyflwyniad Mathamagic:

Beth yw'r siawns o ennill y lotri? Sut mae

cyfrifiaduron yn storio a throsglwyddo gwybodaeth?

Beth yw'r fathemateg sydd y tu ôl i driciau a rhiithiau?

Rhai o'r pynciau sy'n cael sylw yn y cyflwyniad

diddorol hwn yw: tebygolrwydd, algebra, cyfrifiadureg, rhifau deuaidd, topoleg, siâp a rhifydddeg pen ac fe'u cyflwynir mewn modd hwyliog a rhyngweithiol.

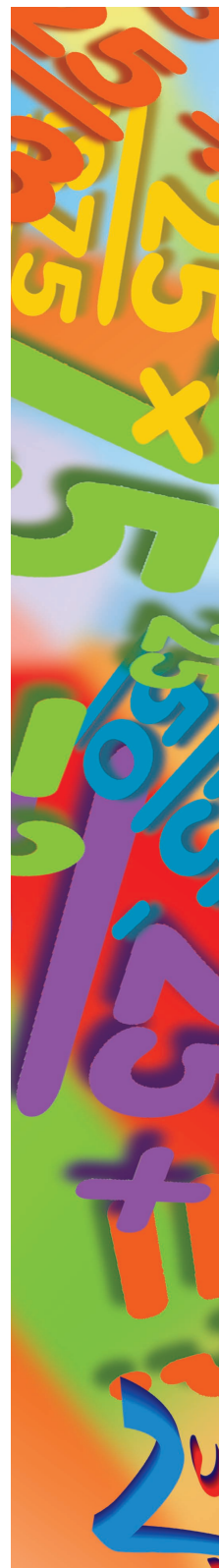
Mae Mathamagic yn cynnwys gweithgareddau sy'n

R61au *siâpiau*
Pau *unboç*

arddangos y syniadau allweddol am rif, siâp, gofod a mesur sy'n gysylltiedig â'r Cwricwlwm Cenedlaethol ar gyfer Mathemateg.

Sut i archebu:

Y pris yw £4.30 am bob disgybl, a chaniateir mynediad am ddim i'r athrawon sy'n hebrwng. Cysylltwch, os gwelwch yn dda, ag Ysgrifenyddion Archebu Techniquet ar **029 20 475 476**.



From page 1

from their placement schools, and a most enjoyable two days they were too. Schools attending were Abersychan, Abertillery, Mary Immaculate and Willows. "This is the best way to learn maths - it's not my favourite subject but the sessions we've taken part in today have helped to make it easier to understand," said 13-year-old Chelsea Jones from Willows High School in Cardiff. Chelsea and her fellow Year 8 pupils played three-dimensional noughts and crosses, built pyramids and learned how to draw perfect circles in the sessions.

A mathcymru roadshow consists of a suite of hands-on maths activities, with associated presentations aimed at Key Stages 2 and 3. If your school is interested in hosting a roadshow, and/or you would like further information about these, then please contact us at the address below.

Maths Events and Dates for the Diary

The following is a list of events at which mathcymru will have a presence. We are still filling the diary, so check our website regularly for updates and more information.

- 12 June - 7 July Mathamagic at Techniquet, Cardiff Bay.
- 21 June Mathamagic visit to Crickhowell High School.
- 29 June Mathamagic visit to John Beddoes High School.

If you would like more information about any of the above events, please get in touch.

Parhad o dudalen 1

wedi dod â disgyblion o ysgolion eu lleoliadau, a bu'n ddeuddydd pleserus dros ben. Yr ysgolion a gymerodd ran oedd Abersychan, Abertillery, Mair Ddifrycheulyd a Willows. "Dyma'r ffordd orau i ddysgu mathemateg - nid fy hoff bwnc ond mae'r sesiynau a gawson ni heddiw wedi helpu ei wneud yn haws i'w ddeall," meddai Chelsea Jones sy'n 13 mlwydd oed ac o Ysgol Uwchradd Willows yng Nghaerdydd. Bu Chelsea a'i chyd-ddisgyblion Blwyddyn 8 yn chwarae seroau a chroesau tri dimensiwn, yn adeiladu pyramidiau ac yn dysgu sut i lunio cylchoedd perffaith yn ystod y sesiynau.

Mae sioe deithiol mathcymru yn cynnwys detholiad o weithgareddau ymarferol mathemateg, ynghyd â chyflwyniadau wedi eu hanelu at Gyfnodau Allweddol 2 a 3. Os oes gennych ddi-ddordeb mewn croesawu sioe deithio i'ch ysgol chi, ac/neu os hoffech wybodaeth bellach am y sioeau hyn, yna mae croeso i chi gysylltu â ni yn y cyfeiriad sydd o dan.

Digwyddiadau Mathemategol a Dyddiadau i'w Nodi

Dyma rhestr o rai digwyddiadau y bydd mathcymru yn cymryd rhan ynddynt. Rydyn ni'n parhau i lenwi ein dyddiadur, felly gwylwch ein gwefan yn rheolaidd er mwyn cael y newyddion diweddaraf a rhagor o wybodaeth.

- 12 Mehefin - 7 Gorffennaf
Mathamagic yn Techniquet, Bae Caerdydd
- 21 Mehefin
Mathamagic yn ymweld â Ysgol Uwchradd Crickhowell
- 29 Mehefin
Mathamagic yn ymweld â Ysgol Uwchradd John Beddoes

Os hoffech fwy o wybodaeth am unrhyw un o'r digwyddiadau uchod, yna cysylltwch â ni os gwelwch yn dda.

mathcymru Website

Keep up-to-date with news from mathcymru by visiting our website on www.mathcymru.org.

Our website is updated continually with details of forthcoming events, projects and funding for schools, competitions and mathematical resources.

Need advice or want to pass on useful teaching tips and resources? Our website also has a noticeboard which gives all browsers an opportunity to post articles and engage in discussion with other website users and the mathcymru team.

www.mathcymru.org

Gwefan mathcymru

I wneud yn siwr eich bod yn gwybod am bopeth sydd gan mathcymru i'w gynnig, cofiwch ymweld â'n gwefan ar www.mathcymru.org. Caiff ei diweddarau'n gyson gyda manylion am ddigwyddiadau a phrosiectau sydd ar y gweill, cefnogaeth ariannol i ysgolion, cystadlaethau, ac adnoddau mathemategol. Angen unrhyw gyngor, neu'n awyddus i dynnu sylw at unrhyw adnoddau dysgu neu help llaw go hwylus? Os felly, mae hefyd gan ein gwefan hysbysfwrdd sy'n rhoi cyfle i unrhyw un adael erthygl neu gychwyn trafodaeth â defnyddwyr eraill y wefan a thîm mathcymru.

For more information contact:

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Lywodraeth Cynulliad Cymru