



Welcome to Issue 6 of the FE magazine. There are links to calendars, a focus on snow, news for A level and Further Maths, network meetings to find out about and lots more. If you have comments, suggestions or articles for possible inclusion in future editions, please [contact us](#).

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A-level and Further Maths

In this issue, we look at some of the resources available to support your teaching.

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What's happening in the Regions

This month we focus NCETM in the regions - activities, projects and meetings.

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This time, we look at Thinking Through Mathematics, which is now available online.

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'Small' and 'big' mistakes - from mice to the particle accelerator at Cern, Switzerland.



From the editors

Have you got your 2010 calendar sorted? Here are some more ideas about calendars; you can also find out about festivals to celebrate, and try some calendar tricks.

2010

Last month we suggested that you download and make a [dodecahedral calendar](#) to impress your friends and colleagues. January is a good time to look at calendars with your learners.

There are [many sites](#) from which you can download calendars. Numeracy and GCSE students could explore the calendar – why not suggest they make up questions for others in the class based on the calendar?

When will [Easter](#) be this year and why?

When is [Ramadan](#)? What other festivals will be celebrated by members of your class and when will those be?

Why not impress your classes by doing one of the [Calendar Tricks](#) as a starter? Watch a [video](#) explaining how to do the trick! NRICH has a different [calendar problem](#).

You may also be interested to read an article about calendars and their history in [Issue 13](#) of the Primary Magazine.



The Mathematics I do – Viv Brown

About me: I am a Regional Coordinator for the National Centre for Excellence in the Teaching of Mathematics (NCETM).

The mathematics I use at work...

Is often related to travel. I need to know how many miles it is to the various places I visit in the region and estimate how long each journey takes. If I take the train, I often think of the students I used to teach in FE and how many had difficulty understanding timetables.

The mathematics I've used in the last week...

Has been mostly related to low temperatures outside, often negative, realising how heavy snow can be to shift and marvelling at the length and thickness of the icicles hanging from my house.



Mathematics which has amazed or surprised me...

Ah, just dip into [Rob Eastaway's](#) 'Why do buses come in threes?' or 'How long's a piece of string?' and you will be amazed, and surprised too.

The part of mathematics I like most...

I like anything to do with paper folding and was intrigued to read the article on the power of origami in [Issue 53](#) of Plus magazine. From trisecting angles to folding automobile airbags, folding is the key.

The part of mathematics I like least...

Is those horrible multi-choice maths questions in tests where three wrong answers are suggested and only one correct one. It would be so much more positive and creative for learners if open questions could be used, such as 'What are the dimensions of a rectangle with area 24 cm^2 ?' or, 'Write a quadratic expression as a string of terms and in its factorised form.' Then they really would have a choice.

A maths teacher I remember...

Is the one who made me smile, Miss Connor. She taught me geometry with great success. Having drawn some diagram on the board, she would storm up and down between the desks, enthusiastically demanding 'What can you see? What can you see?'

And another teacher I remember...

Is Henry Jack who could cover a board in maths faster than I could copy it down and only had one way of

explaining anything. Unfortunately, it was not always a way that I could understand.

And other people/events that have influenced my attitude to mathematics include...

- becoming a teacher and finding that not many people want to study maths
- working with access students and celebrating their success in maths second time around
- receiving the [Standards Unit box](#) [Improving Learning in Mathematics] and wishing I had been given it 20 years before.



Focus on...snow

Look at [the photograph](#) of Frozen Britain. How much snow fell on the UK? Estimate the total [volume of snow](#) that fell over the whole country? When it all melts, [how much water](#) will be produced?

Why does it snow [above freezing level](#)?

Give the students these articles on the costs of clearing the snow in [Columbus](#), in [North Texas](#), and in [Lancashire](#), together with some suggestions for the cost of, for example, [salt and grit bins](#) and snow shovels and [grit and salt](#) and [other equipment](#). What do they think it would cost to clear the main streets in their town? What about side roads? The paths or car parks in their school or college?

What about the cost to the country or companies of days lost due to snow?

How much extra [electricity and gas](#) were used during the first weeks of January?

And lastly, [this letter](#) appeared in *The Times* on 14 January "In many states of the United States, when schools have to close because of the snow, they are required to make up the lost days at the end of term. These days are called 'snow days'."



A-level and Further Maths

Have you seen the [A level course](#) which can be downloaded from the Centre for Innovation in Mathematics Teaching?

You can find [several sites](#) supporting Mechanics teaching here on the portal. Have you looked at the [Recommend a Resource](#) forum recently?

It is easy to forget to look at the resources which you can find in the Documents section of the various NCETM portal communities, for example:

- [AS/A Level Further Mathematics Forum](#)
- [Further Mathematics Teachers](#)
- [Secondary Forum](#)
- [Statistics Teacher Network](#)
- [STEM Mathematics Teachers Network](#)

And finally, do explore the [What Makes a Good Resource](#) microsite.



News from the STEM Networks

Find out about the March 2010 STEM mathematics subject coaching networks. These popular meetings provide opportunities to network with colleagues, share good practice, participate in activities together and receive updates on current initiatives and resources for mathematics and numeracy. These are free professional development events for all in LSC-funded organisations – FE colleges, Sixth Form Colleges, Secure Provision, Adult and Community, Work Based, Family Learning...

During March there will be mathematics networks in Newcastle, Leeds, Preston, Nottingham, Cambridge, Solihull, Exeter, Guildford, and London.

You can book a place now through the [Subject Learning Coach website](#), where you can filter by region, subject (mathematics) and event type (STEM subject coaching network).



What's happening in the Regions?

- the NCETM portal has a lot of [information](#) about regional activities. You can find out about your local [Regional Coordinators](#), find out about [courses and events](#), and read the latest [Regional Updates](#)
- your local Regional Coordinator will still accept applications for funding for small, short-term projects. You can apply for funding of up to £1 000, and the Regional Coordinator teams will support you with online coaching to start you off and keep you going. You can see examples on the NCETM [Regional Projects Programme page](#)
- six NCETM [Influence and Impact conferences](#) are being held around the country in January and February. These conferences are for teachers who are interested in working with a group of like-minded teachers to exchange ideas to develop teaching skills. They will provide an opportunity to communicate, collaborate and share practice. You are invited to join us for an evening meal with mathematical entertainment and a conference the following day. There may be a few places left in your region – apply now!



Elsewhere on the Portal

[Thinking Through Mathematics](#) (TTM) is now available online.

This substantial resource contains a professional development programme as well as guidance and content to use with learners from Entry Level to Level 2. It is based on the same approaches and strategies as [Improving Learning in Mathematics](#), encouraging learners to move towards more active learning. It emphasises the interconnected nature of mathematics, explores common misconceptions, and makes use of small group work and activities which promote discussion.

The online version has been produced by the [LSIS STEM Teaching and Learning Programme](#), which supports teachers to develop and share effective practice. You are encouraged to develop and reflect on the use of the resources with colleagues and, if you are working in the Learning and Skills Sector, with a Subject Learning Coach as part of your personal continuing professional development plan.
Why not dip in to TTM now?



And finally...

Mistakes can be small...



...or big: in [this article](#) from *The Sunday Times*, Jonathan Leake writes about how basic mathematical errors led to an explosion in the particle accelerator at Cern, Switzerland.

Please [send us](#) your quirky or funny examples of maths in use!