



Full STEM Ahead

The newsletter of the RAiSE Team Issue 5 February 2018

Check out the [Full STEM Ahead](#) site

Support and inspiration at a click of your mouse!

Click here for the printer friendly version of our newsletter



Save the Date

[Fossil Hunters: Unearthing the Mystery of Life on Land](#)—23 Feb-22 Apr 2018 at Dumfries Museum

[Careers Hive](#)—26 Feb – 3 Mar 2018

[World Book Day](#)—1 Mar 2018

[I'm a scientist ...'](#) - 5-16 Mar 2018

[British Science Week](#)— 9 – 18 Mar 2018—Theme: 'Discovery and Exploration'. Activity packs: available from January

[Space: Fact or Fiction](#)—30 Mar-19 May 2018 at Annan Museum

[National Digital Learning Week](#)—14-18 May 2018

What's New Online

This month we have added links to the following pages to the Full STEM Ahead website:

Education Scotland & Scottish Government: [STEM Self-Evaluation and Improvement Framework](#)

Risk Assessments: [Sumdog - Registering Personal Info on Websites Parental Permission](#); [Sumdog - Privacy Risk Assessment](#); [Bug Club \(Pearson\) - Registering Personal Info on Websites Parental Permission](#); [Bug Club \(Pearson\) -Privacy-Risk-Assessment](#)

Coding: [Girls Make Games](#); [Hello Ruby](#)

Animation: [ABCya! Animate](#)

Cyber Resilience & Safety: [Have I been pwned?](#)

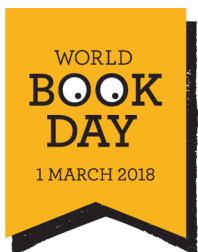
Science: [Primary Science Teaching Trust](#)

Developing the Young Workforce: [DG Employment TAP](#); [Founders4Schools](#);

Gender Balance: [A brief history of women in science](#); [Girls Make Games](#); updated links to [National Improvement Hub](#); [Just Like a Child](#);

Craft, Design, Engineering & Graphics: [Tomorrow's Engineers](#); [Step-by-Step Lessons in Tinkercad](#); [Makedo](#)

World Book Day



We're sure you will be aware that World Book Day is on 1st March this year. It may seem strange for us to be promoting a literacy initiative in our STEM update, however, STEM can be used in so many ways to support literacy. There are some fantastic resources at [Roald Dahl - Teach the Stories](#) to support IDL activities,

including STEM, linked to Roald Dahl's stories.

Alternatively, why not have pupils present a book review or recreate a scene from their favourite book using [Animation](#); [video or Green Screen](#); in [comic book](#) format; or even by using block coding (there's a Create a Story tutorial in [Scratch!](#)). Alternatively, perhaps use modelling skills to recreate a location or object from the book. If you're not feeling 100% confident about doing it yourself then get in touch with a member of the RAiSE Team - we'd love to help!

As Featured on Yammer

Join our Yammer group, [D&G Full STEM Ahead](#), and find out more about:

- developing science and listening skills using Explorify
 - the Teacher Assessment in Primary Science Pyramid tool from PSTT
 - inspiring the girls in your classes to study STEM
- how to participate in the [I'm a scientist ...](#) event
- accessing free Tynker tutorials
 - introducing coding and computational thinking in the early years
 - Micro:bits in action
 - How computers work
 - the John Muir Awards

Plus links to great resources not featured here. Don't miss out—ask to join today!



[Subscribe to the Blog @ Full STEM Ahead](#)

How safe are your passwords?



We saw a great poster recently about how to keep your passwords safe. It suggested treating them like you would your pants: change them regularly; don't share them with others; and don't leave them

lying on your desk! When it comes to children it still holds true, but they need some adult guidance to change them regularly (passwords and pants) and, there is every likelihood they will share them with others and leave them lying around (again we're talking about passwords and pants, as any P1 teacher will tell you!).

It's never too early to teach your pupils about safe and secure passwords. Okay, it is easier for every P1's password to be 'red', and every child in the class knows it; but if that's still the case come P3 then not so good. And of course it's easier to pin a list of passwords up on the wall so children can go and find their own without having to come to you every time they need to log on; but that's not modelling good practice.

Passwords are mentioned in the benchmarks from Early level onwards:

- Early - 'Demonstrates an understanding of the importance of passwords and passcodes'
- First - 'Demonstrates an understanding for the need for strong passwords'
- Second - 'Uses strong passwords'

At Third and Fourth level onwards they are not mentioned specifically; by this time they should know to change them regularly, not to share them, and not to leave them on their desks (hopefully, at this stage, we're no longer talking about pants!).

If you want some more advice about how to set strong, but easily remembered, passwords check out these resources: [Connect Safely](#); [Wikihow](#); or [How To Geek](#). And [How Secure Is My Password](#) is a really useful site to check how quickly your password could be hacked by a computer.

'Intelligence is the habit of persistently trying to understand things and make them function better. Intelligence is working to figure things out, varying strategies until a workable solution is found. One's intelligence is the sum of one's habits of mind.'

Resnick, L. (1999) *Making America Smarter - Education Week Century Series*
Sourced from: [Thinking Like and Engineer - Implications for the Education System](#)

Become a Polar Explorer

The Polar Explorer Programme will encourage and support schools to enrich their teaching of STEM subjects, placing relevant CoE curriculum topics within the context of the construction and launch of the ship, and of polar exploration in general.



Each year primary schools can apply to access additional support to develop the teaching and learning of STEM subjects in their school. Selected schools will be assigned a Polar Ambassador who will provide intensive support to improve progression in STEM subjects from primary to secondary school.

The support of a Polar Ambassador will help selected schools to increase pupils:

- enjoyment and engagement in STEM subject lessons and extra-curricular activities
- confidence in learning science and in scientific enquiry skills
- awareness of the importance and relevance of science to society, and the role this plays in relation to helping people live with and adapt to climate change
- knowledge of career opportunities available to those pupils who study STEM subjects

The Polar Ambassador will work with selected schools and provide:

- in-school professional development for teachers
- access to free resources and activities which have been curated and developed to link in with the commissioning and operation of the ship
- ideas and suggestions to support schools' outreach activities

In addition to the support of their Polar Ambassador, schools will also receive a Polar Explorer resource pack and have the opportunity to apply for additional grant funding of up to £2,500 to support in-school activities and transition in STEM subjects from primary to secondary school.

There are 50 free spaces in the Polar Explorer Programme's third year being introduced this spring. Many schools are currently taking place in this programme, but none so far from within Dumfries and Galloway. Let's change that! Applications for year three will open in the Spring term of 2018. To express interest please click [here](#) or email direct to polar@stem.org.uk

Have you seen the latest ...

[SSERC Bulletin](#)



[Primary Science & Technology Bulletin](#)

CPD Coming Soon

The RAISE Team will be offering a range of twilight training sessions in terms 3 and 4. Bookable now through CPD Directory:

- 19 Feb—[Model Building/Construction](#) @ Penninghame PS
20 Feb—[Model Building/Construction](#) @ Castle Douglas PS
22 Feb—[Introduction to Simple Programming](#) @ Lockerbie Academy
21 Feb—[Model Building/Construction](#) @ Lochside PS
1 Mar—[Introduction to Serif Page Plus](#) @ St Joseph's College
1 Mar—[Model Building/Construction](#) @ Lockerbie PS
5 Mar—[Animation with Serif Draw Plus](#) @ Douglas Ewart High School
6 Mar—[Introduction to Serif Page Plus](#) @ Annan Academy
6 Mar—[Animation with Serif Draw Plus](#) @ Castle Douglas High School
7 Mar—[Introduction to Simple Programming](#) @ Douglas Ewart High School
8 Mar—[Animation with Serif Draw Plus](#) @ Maxwelltown High School
8 Mar—[Working with the New Technologies Curriculum](#) @ Maxwellton High School
12 Mar—[Animation with Serif Draw Plus](#) @ Annan Academy
12 Mar—[Outdoor Chemical Reactions](#) @ Gatehouse PS
13 Mar—[Working with the New Technologies Curriculum](#) @ Annan Academy
14 Mar—[Working with the New Technologies Curriculum](#) @ Douglas Ewart High School
19 Mar—[Exploring Barefoot CAS Resources](#) @ Douglas Ewart High School
19 Mar—[Outdoor Chemical Reactions](#) @ Carrutherstown PS
21 Mar—[Working with the New Technologies Curriculum](#) @ Dalbeattie High School
26 Mar—[Exploring Barefoot CAS Resources](#) @ Dalbeattie High School
27 Mar—[Introduction to Serif Page Plus](#) @ Douglas Ewart High School
27 Mar—[Exploring Barefoot CAS Resources](#) @ St Joseph's College
28 Mar—[Introduction to Serif Page Plus](#) @ Kirkcudbright Academy
28 Mar—[Exploring Barefoot CAS Resources](#) @ Annan Academy

Want to attend but the time or location doesn't suit? Want support with a different aspect of STEM? Get in touch with any member of the RAISE Team who will be happy to discuss bespoke training for your and your colleagues.

New Edina Trust Consultant

We are delighted that Bill McLarty has been appointed as the Edina Trust Consultant for Dumfries & Galloway. As you will be aware, primary schools can apply for up to £600 of funding to support science in their school. The money can be used for visits to or from STEM centres as well as equipment, yet many school have still not applied. With your permission, Bill is hopeful that he'll be able to visit as

Safety Snakes from Barefoot



Safer Internet Day has just passed but every day should be a safe internet day, so it's not too late to do some input on cyber resilience with your pupils.

The Safety Snakes campaign offers teachers a range of free resources to help them combine the principles of online safety with computational thinking. Barefoot are providing a new online safety themed lesson plan and printed Bee-Bot mat, designed similar to a Snakes and Ladders game. This includes a digital version of the mat, Scratch Bee-Bot sim, a lesson plan, teacher notes and a printable version of the mat for pupils to enjoy. Everything teachers need is available from the website they can simply register and download the resource from barefootcas.org.uk.

In addition, they are also offering a printed online safety mat, to teachers who register on Barefoot's website and book a workshop, quoting the Safety Snakes campaign code: 999. Workshops must be requested before **2 March 2018** and be delivered before the end of the 2017-18 academic year.

The Barefoot Safety Snakes resources pack contains:

- A detailed Safety Snakes lesson plan
- An overview short lesson plan
- A printable version of the online safety Bee-Bot mat (4 x A3 size documents)
- An interactive Scratch Bee-Bot sim
- A link to the video, presented by young children, showing how to use the online safety mat
- Other lesson resources, including Bee-Bot command cards, unplugged Bee-Bot image, a printable mat square for children to design their own Bee-Bot mats and dos and don'ts teaching points

Teachers who have already registered with Barefoot can download the Safety Snakes lesson resources, including a digital version from barefootcas.org.uk. Remember though, the printed version of the online safety mat is only available to registered teachers who book a workshop, quoting the campaign code 999.

many nurseries/schools and clusters as he can over the next 18 months to support you in taking advantage of the Edina Trust funding and have the pleasure of renewing old acquaintances and meeting new colleagues. His contact details are as follows:

E-mail - mclarty.household@btinternet.com
Mobile- 07887428446.

... BREAKING NEWS BREAKING NEWS ...

It was announced last week that Edina Trust funding will now be available to Partner Nurseries and Playcare providers. Bill will be contacting Early Years Centres in the coming weeks, but you may wish to share this news with your local Early Years Centre and pass on Bill's details to them.