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early years & primary STEM bulletin

Ideas and inspiration for primary teachers and early years staff

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All wound up! Making moving models

Find out how to build simple mechanisms with your learners to create moving models, linking to many areas of the curriculum.

Primary Science Teaching Trust resource update

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The Young STEM Leader Programme - FAQs

Find out how learners can build leadership and STEM skills across your school.

The Great Science Share for Schools

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Spotlight on STEM Ambassadors

Connect with STEM Ambassadors to enrich STEM learning in your setting.

All wound up!
Making moving models

Providing learners with an opportunity to explore engineering principles by constructing models is a great way to build skills and resilience. By using easy to resource materials – most of them recycled – learners can design, plan, construct and refine a range of moving models using winches, hoists and wheels.

Our cereal box hoist encourages learners to design a moving model linked to a story, song or rhyme – making meaningful links across CfE.

To develop skills further we have produced supporting materials to show a range of spinning models using rotating wheels. These simple models provide learners with an opportunity to engage with some principles used in real life engineering – at the same time encouraging and developing creativity and design skills.

Click the button below to explore a range of videos and instructions to support the construction of these models, providing CfE links and top tips to inspire you and your learners!

All wound up! resources here

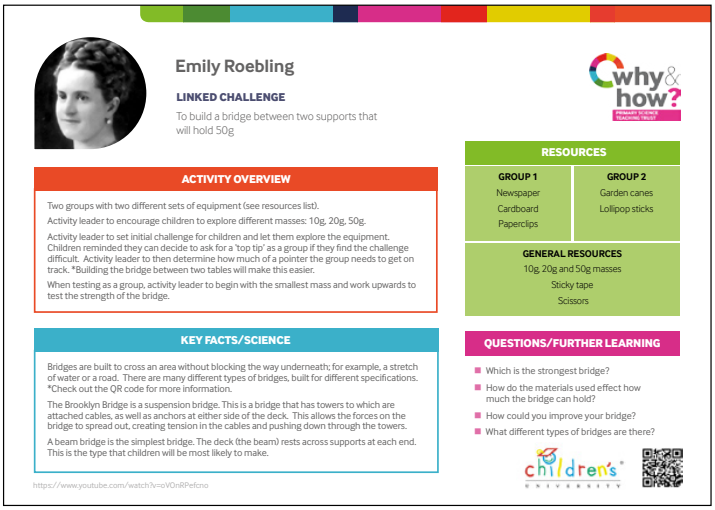
CHILDREN'S UNIVERSITY SCIENCE CLUB RESOURCES

Aimed at teachers or other adults wanting to introduce a science or STEM club to children, PSTT has created freely accessible resource packs that each cover a series of 8 sessions for an extra-curricular science or STEM club.

The resource packs are available to download from the PSTT website. **Engineering Our World** is based around a famous scientist, engineer or artist, each session includes an activity to challenge the children and a fact sheet to take home so the children can share their learning with their friends and families. We also have activity packs for **Earth Explorers** and **Challenge Chasers.**

All activities are validated by the Children's University and as such count towards accredited learning for any children taking part.

CREATED BY KATE REDHEAD



NEWEST RESOURCE PACK!
Sensory Sparks: for children with additional support needs

To download the STEM club resource packs, please visit:
www.pstt.org.uk/resources/curriculum-materials/childrens-university-stem-clubs

For more supporting resources from the Primary Science Teaching Trust, please take a look at our resource pages:
www.pstt.org.uk/resources

YOUNG STEM leader led by sserc

The Young STEM Leader Programme - FAQs

Young STEM Leaders in Primary 6 (rear) at Dalmarnock Primary School leading a STEM activity to younger learners (front).

What is the Young STEM Leader Programme?

The Young STEM Leader Programme (YSLP) gives young people in Scotland the opportunity to inspire, lead and mentor their peers through the creation and delivery of STEM activities, events and interactions within their schools, communities, or youth groups.

Above all else, the programme aims to promote STEM curiosity in young people and to encourage them to learn about the world around them in a fun and engaging way.

The YSLP is offered in two versions. The non-formal version at CfE Second, Third and Fourth Levels (YSL2, YSL3 and YSL4) is underpinned by a framework that identifies the skills, knowledge and behaviours expected of Young STEM Leaders at each curricular level. Young people will work towards four digital badges – Discover, Create, Inspire and Lead – at each level to gain the award.

The formal version is offered at SCQF Levels 4, 5 and 6 (YSL4, YSL5 and YSL6), credit rated by SQA and underpinned by learning outcomes and performance criteria for each level. SCQF credit points and Insight data are included.

After initial learning delivered by a Tutor Assessor, young people complete a series of tasks in their YSLP Log which details all of their learning, planning and STEM leadership. This ensures Young STEM Leaders are fully prepared to deliver a safe and engaging STEM activity, event or interaction.

Why should you get involved?

As well as allowing Young STEM Leaders to develop important leadership, communication and employability skills, working towards a YSLP award will also motivate young people to progress their STEM studies and perhaps eventually embark on a career in STEM.

The programme will increase STEM awareness across your whole centre as Young STEM Leaders will become STEM role models and lead their activities not only with their peers but other age groups too.

How can you participate?

Any organisation that works with young people, with staff who are members of the PVG scheme, can apply to become a YSLP Delivering Centre. The programme is free to participate in and you can become fully certified to deliver YSLP in your centre by attending one of our two-hour online Tutor Assessor training sessions.

The programme provides excellent professional learning opportunities for staff, increasing confidence in leading STEM learning, and providing access to resources and support to aid you in delivering the programme.

Upon becoming a Tutor Assessor, you will have access to all the supporting documentation for each level, including Support Notes and YSLP Logs. The YSLP Project Team at SSERC are always on hand to answer any questions and you will join a large network of Tutor Assessors who share ideas and resources. <<

Find out more...

To learn more about the Young STEM Leader programme and start delivering it in your school community or youth group, visit **www.youngstemleader.scot**, email us **youngstemleader@sserc.scot** or check out our **@YoungSTEMLeader**.

Great Science Share for Schools

SSERC are delighted to be Great Science Share for Schools Regional Champions in 2022. We are pleased to be able to share the latest update as we build up to the campaign celebration on Tuesday 14th June!

What is the Great Science Share for Schools?

The Great Science Share for Schools was launched in 2016 and inspires 5-14 year olds to ask, investigate and share the scientific questions that really matter to them. Focusing on the importance of sustainability, GSSfS 2022 will have a Climate Action theme, encouraging learners to ask questions to explore how their actions might make a difference to the world around them. The Great Science Share for Schools promotes learner-led enquiry. Young scientists across the UK can ask scientific questions that they're interested in, or link to the Climate Action theme. Learners gather evidence to help answer those questions and then share their questions and findings with others. It is free to take part when teachers register through the website for access to guidance, resources and regular news updates.

SIGN UP NOW TO REGISTER FOR THE 2022 CAMPAIGN. YOU WILL THEN BE ABLE TO ACCESS A RANGE OF RESOURCES.

I'm a Scientist get me out of here Great Science Share Zone

There is a brilliant opportunity for Great Science Share schools to take part in the I'm a Scientist get me out of here Great Science Share Zone. If you have not come across it before, I'm a Scientist is an online, learner-led STEM enrichment activity. It connects schools with scientists through energetic, real-time, text-based chats.

The Great Science Share Zone will be specially designed to support learners to put their own scientific questions to experts - seeing themselves as scientists by making links between how they work scientifically in school with how the scientists in the Zone work.

The Great Science Share Zone runs from 9th May 2022–17th June 2022. To find out more and register click here. To read our blog click here.

Physics - Great Phizzi Share

The Great Phizzi Share resources launched nationally with a Webinar on 3rd May 2022.

The resources include three physics themed guided enquiries - linked to ideas about climate change and climate action. There are opportunities for 5-7 year olds to make observations over time, working as climate scientists; 7-11 year olds can carry out a comparative test to find which reflective materials can be used to grow plants more effectively and 9-14 year olds can investigate transparency of materials to choose appropriate coverings for growing food in polytunnels. The pilot showed that all enquiries really supported learners in gathering and using data to answer scientific questions, as well as inspiring them to ask their own scientific questions around the themes.

All enquiries have teacher notes, presentations to use in the classroom and supporting resources. >>

Chemistry - Doffa's Reindeer

This guided enquiry is inspired by the text 'Doffa's Reindeer' by Jules Pottle; it is the story of a family in the frozen north.

Doffa is a reindeer herder who lives within the arctic circle, where the land is covered in snow all winter long. Food is hard to find, but the reindeer manage well enough on the lichens which lie below the blanket of snow. As always, the passing of time brings changes: Doffa grows old and his granddaughter, Ibba, comes to care for him. The town is changing too and Ibba fears their traditional way of life might not survive…

Sharing the story encourages learners to think about air pollution in the arctic circle, inspiring them to think about and investigate air quality in their own environment. Schools will be able to access a video of Jules reading her book, a video of a demonstration and the enquiry set up - also presented by Jules, along with teacher notes about how to support and develop the different stages of the enquiry in the classroom. Learners make their own particulate traps using plastic wallets and Vaseline and carry out a comparative test in their local environment to compare the number of particulates in the air in different locations, encouraging lots of scientific questions about clean air.

Biology - Great Big BioBlitz

Encourage learners to explore the life in their school grounds or local area with this BioBlitz guided enquiry from the University of St Andrews. Prompt learners to ask questions then get outside to find, identify, and record living things. The data will provide an interesting insight into the habitats and organisms present in the local environment. The results can then be submitted to be part of a citizen science project. Learners may be inspired to plan ways to encourage more nature to make a home in their local environment. Get outside and get exploring! A new Great Big BioBlitz video will be released each week for you to share in the classroom - a great way to introduce a wide range of wildlife to your learners.

Great Science Skills Starters

Our new collection of resources to support the development of scientific skills in the classroom is now live on the website.

The Great Science Skills Starters form a collection of eight direct to classroom videos and supporting resources, that support learners to develop a range of skills required to work through the scientific process. The videos aim to model the skill, provide an opportunity for learners to practise the skill and finally challenge them to apply the skill when carrying out their own enquiries.

Micropoetry competition

Creative Manchester, in partnership with the Centre for New Writing and the Great Science Share for Schools, is running a Micropoetry competition themed around 'Climate Change'. To enter, participants are invited to write a climate-themed micropoem (280 characters) and tweet their poem with the hashtag #micropoem22. To make the competition more accessible, email entries will also be accepted. Please email your micropoem to creative@manchester.ac.uk. <<

watch micropoetry video

Spotlight on STEM Ambassadors

STEM AMBASSADOR HUB
STEM AMBASSADORS IN SCOTLAND

STEM Ambassadors are employees and students working in STEM-focused roles who volunteer their time to help engage and inspire the next generation of learners.

Whether it's running a workshop, judging a STEM competition, or giving a careers presentation or Q&A, STEM Ambassadors help to bring STEM to life in the classroom.

We have thousands of Ambassadors available throughout Scotland, specialising in all areas of STEM.

To give you an idea of just some of the people you and your learners could engage with, we regularly spotlight Ambassadors on our website, highlighting their day-to-day jobs and the paths they took to a career in STEM.

Not only do these articles give an idea of the Ambassadors we have on board, but they can also be used as a tool to discuss career options with learners.

Our latest spotlight, Emily Southworth, is a PhD student at the University of Edinburgh Institute of Genetics and Cancer.

Arrange a STEM Ambassador visit online or face-to-face

Follow these simple steps to request a STEM Ambassador to be involved in your setting.

Login or register on the STEM database at www.stem.org.uk and add an activity, giving as much detail as possible about what you would like the Ambassador to do – then we will do the rest.

When you add an activity, Ambassadors can get in touch to register their interest. We also promote the activities through our communications with our volunteers to help you get the right person for your request.

More information on requesting Ambassadors can be found in our Teachers' Guide to STEM Ambassadors.

Ambassador offers

Not sure how you would like a STEM Ambassador to help? Find out what STEM Ambassadors can offer you.

Many of our Ambassadors have created examples of presentations or workshops they are willing to deliver to help you engage with them.

To browse our offers and get in touch with the relevant STEM Ambassadors, log in to our website and visit browse offers. <<

View all our STEM Ambassador Spotlights

Contact us
You can contact us by email or follow us on

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