

## CLPL Online Opportunity

### Teaching Contemporary Knitwear in relation to STEM subjects with Maker Jeni Allison

Thursday 17<sup>th</sup> June 2021

Hello,

Craft Scotland is developing a mentoring initiative to help teachers develop creative ways of delivering craft and design in relation to STEM subjects. In a supportive environment you will gain knowledge of key skills and learn how these can be transferred back into the classroom. Creativity is often seen solely within the context of arts, however it has many connections to science, technology, engineering and mathematics. Interdisciplinary projects originating in craft can help with problem solving, collaboration and team-working, analysis and many more key skills.

Since 2018, Craft Scotland has been delivering a CLPL programme in Contemporary Craft to Edinburgh and Lothian Schools. We are now inviting secondary schools across Scotland to apply to join a pilot CLPL mentoring programme for teachers which will run during 2021/22. Craft Scotland is working with maker, Jeni Allison, on the programme. Jeni is an expert in contemporary textiles and is also an experienced design educator. Over the course of the programme Jeni will work with four selected secondary schools to help implement bespoke creative and professional support for each school.

The opportunity will launch with a talk for teachers who are interested in finding out about the project.

#### **How Craft can support inter-disciplinary learning across Key STEM areas:**

- Understanding environmental sustainability and how this works in the fashion industry

#### **Supporting Makers, Promoting Craft**

Craft Scotland, Studio 6 & 7, Castle Mills, 2 Gilmore Park, Edinburgh EH3 9FN

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- Lots makers dye their own fibres to create garments and other textile work, they also grow their own plants and keep animals for their fibre or hair. Examining fibres under the microscope can lead to understandings about their properties, and in turn informing design decisions, i.e. why a cotton fabric is very useful in products such as towels
- Design and Manufacture
  - Planning, designing and making products which people use
  - Testing products with manufacturers e.g., washing powders and temperatures, and understanding clothing labels
  - Fibres and fabrics have many diverse uses from sportswear to making clothing for astronauts going into space
  - Learning how to design and construct garments using the latest technology in knit programming
  - Working with high tech materials which are 3D printed
- There are many career paths using skills in technology and design e.g., Fashion Designer, Architect, Graphic Designer, Product Designer, Software Engineer or Set Designer
- Mathematics is key to understanding finances. It helps designers with making the most effective use of their resources, explaining statistics, problem solving and forms a language that allows them to talk to IT experts, business people, scientists and engineers
  - Working out a business loan or to give account of where the money is being spent
  - Working out how much material you need for a garment and how much it will cost
  - Sticking to manufacturing budgets and understanding how to re-work a design to suit the client
- Mathematics can also push the boundaries of creativity in fashion, creating garments inspired by geometry and topology. This helps designers to push their designs to a level of complexity and precision
  - Using STEM for inventions in fashion
  - Understanding the knit industry and technologies available to us in Scotland

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- How to design and make garments that fit the body using mathematical principals
- Applications of Mathematics:
  - There are a lot of ‘rules’ in knitting, for example when knitting a jacquard pattern you need to consider the maximum colours the machine can knit in a row, and how long the space in between those colours can be
  - In textiles it is essential knowledge for pattern cutting and calculating patterns

Jeni Allison is interested in cross disciplinary approaches to education and really loves Conrad Wolfram’s TED talk about how we (could) teach maths. He shows that in maths education there are four stages, although typically we fixate on the third (calculation). By linking maths to real world applications hopefully pupils will see the benefits for creative and craft careers, as well as more ‘mathematical / scientific’ jobs.

[www.ted.com/talks/conrad\\_wolfram\\_teaching\\_kids\\_real\\_math\\_with\\_computers](http://www.ted.com/talks/conrad_wolfram_teaching_kids_real_math_with_computers)

#### **Timeline:**

#### **Introductory Talk: Tuesday 7<sup>th</sup> September 2021, 5-7pm**

Join us for a talk and a roundtable discussion with Jeni Allison, an expert in contemporary textiles, who will share with you her career, business, and industry knowledge as a knitwear designer. Jeni Allison and Tanwen Llewelyn will also talk about the pilot CLPL programme and will allow time for teachers to ask any questions they may have prior to applying.

This is a free event for all Scottish based teachers.

If you would like to book a place for the talk then please email [tanwen@craftscotland.org](mailto:tanwen@craftscotland.org) by Wednesday 1<sup>st</sup> September, 5pm 2021. A zoom link will be sent out for the event.

#### **Mentoring Applications Open: Wednesday 8<sup>th</sup> September 2021**

#### **Deadline for Applications: Wednesday 29<sup>th</sup> September 2021**

Applications will open for secondary schools to apply to be part of the mentoring programme with Jeni Allison.

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Jeni will work with four selected schools to help implement a bespoke creative and professional support for each school and will support each school with up to six hours of her time. It will be decided between the school and Jeni how this time is utilised.

Here are some suggestions for the different types of advice and support on offer:

- Technical advice and information to illustrate connections across learning themes and how craft can support learning within STEM subjects
- Mentoring for individual teachers
- A team building exercise for teacher groups designed for your school's needs
- Help you identify goals and objectives around your chosen focus
- Suggest how craft skills and approaches can support problem solving and overcoming challenges
- Develop knowledge and understanding of how to use knitwear and textile processes in relation to STEM subjects
- Offer time/ space for reflection
- Provide a sounding board
- Signpost to other resources

### **How will the mentor sessions work?**

Four schools will be offered 6 x 60 minute online (zoom or teams) or telephone meetings with Jeni Allison. These can be combined into longer sessions if needed.

Schools will be able to make use of free check-in sessions with Craft Scotland to answer any questions about the process or to resolve any practical issues.

### **Fees & Costs**

This is a free opportunity for all schools selected. A materials and equipment bursary of £100 per school will be allocated to participating schools.

### **Who should apply?**

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This programme is particularly suited to schools who are seeking help from an experienced maker to support them in developing new and collaborative ways of combining craft and design in relation to STEM subjects.

### Eligibility criteria

- The Secondary School must be based in Scotland
- You must nominate one lead teacher from each school
- You can have up to six teachers take part. We encourage collaborative and team working groups, but this is not essential
- Participating teachers should be able to work remotely

### Selection:

Selection will be based on applicants who have outlined a clear idea of the support they need and who can define their ambitions for their schools.

### Deadlines:

Closing date for applications to mentoring programme: Wednesday 29<sup>th</sup> September 2021, 5pm.

**Please do get in touch for more information if you are interested in this opportunity:** Email Tanwen at [tanwen@craftscotland.org](mailto:tanwen@craftscotland.org)

Kind regards,  
Tanwen Llewelyn  
Programme Coordinator (Learning)

### About Jeni Allison:

Jeni is experienced in designing innovative products for luxury fashion, costume and accessories. She has a BA (Hons) in textiles from the Glasgow School of Art and MA in Knitwear (Design, Heritage and Production) from Heriot Watt University. Her skillset ranges from

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knitwear fabric and garment development both in her home studio and her domestic and industrial knitting machine, as well as in collaboration with Scottish manufacturers.

She is also a design educator, with extensive experience running workshops both in Higher Education and informal learning settings. In 2019 Jeni was commissioned to design and produce costumes for an outdoor dance performance in the Cairn Gorm National Park by Simone Kenyon (choreographer) and the Scottish Sculpture Workshop. The brief was to create dance wear inspired by archival woman's mountaineering gear. The costumes were used in the final performance as well as in the film *How the Earth Must See Itself* produced by National Theatre of Scotland.

Alongside freelancing, from September 2018 until December 2020 Jenni worked as a Design Interpreter at Barrie Knitwear, developing knitted products for luxury fashion brands including Chanel, Loewe and Sonia Rykiel. Jenni developed fabrics and garments for customers, utilising digital knitting technologies and working with the finest cashmere fibres. She designed to customer briefs, and would work on, on average, 10 collections a year.

Since leaving Barrie, Jenni has been building her own studio, working towards releasing a small collection of knitted garments and accessories designed through a mixture of physical sampling and digital exploration.

She is particularly interested in slowing down her design process to embed more meaning into the work that she is producing. She explores narrative-driven design; by layering narratives through representation, suggestion and technology which she hopes to create objects which provoke an 'emotional durability' with owners.

Website: [www.jeniallison.co.uk](http://www.jeniallison.co.uk)

Instagram: [www.instagram.com/jeniallison\\_studio](https://www.instagram.com/jeniallison_studio)

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