News Release

Art-based maths workshops add up to a lot of fun

Maths challenges come in all shapes and sizes … as hands-on learning events at the University Edinburgh have been demonstrating.

The University's School of Mathematics has been hosting a series of workshops that use arts and crafts to boost the subject's appeal.

Participants' perceptions of maths have been challenged, as they explore surprisingly complex mathematical ideas through creative processes.

Coordinator Mairi Walker says that the events have helped students and staff from other disciplines uncover for themselves the true beauty of the subject.

The workshops have been organised as part of the University's Festival of Creative Learning.

The five-day festival has given people an opportunity to explore unfamiliar subjects and learn new skills.

Maths student Patrick Kinnear hosted an origami workshop that let participants try their hand at folding curved, 'hyperbolic' paper.

Using hyperbolic geometry – which helps scientists study the shape of our universe – participants created structures that would have been impossible using regular paper.

Elsewhere, mathematicians teamed up with Edinburgh College of Art printmaking artist Gregor McAlpine to delve into the work of Dutch graphic artist M C Escher.

Participants explored the connections between mathematics and aesthetics in Escher's work, before designing and producing their own Escher-inspired print.

In another event, maths student Imogen Morris combined the creative and the analytical in a workshop introducing the mathematics of knots through knitting.

Aside from their practical uses, knots are symbolic in ancient art, but also have their own branch of mathematics, called knot theory.

After learning to knit knots, participants took the link between maths and craft a step further, working on an unsolved problem in knot theory.

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Lastly, for those who think mathematics is just formulas, there was one further surprise in store.

A mathematical bake-off event saw leading members of staff from the School explain their cutting-edge research using delicious pastries.

For those who enjoyed taking part, the proof that maths has wide appeal was very much in the pudding.

Quote:

The philosopher Bertrand Russell once said 'mathematics, rightly viewed, possesses not only truth, but supreme beauty'. Students and staff from across the University have had the chance to explore the beauty of mathematics for themselves.

Mairi Walker, Mathematics Engagement Officer