

STORIES OF SUCCESS: PROFESSIONAL CULTURE



“Building meaningful connections”

Where did the idea for Project Potterbot come from?

It sprang out of a simple Zoom conversation thinking about how Science across the City can support teachers during Science Week. Through the pandemic they have worked so hard to create the best learning experiences for pupils both at home and in school. At that point we didn't know if we would have most children back in school by Science Week and it was another burden weighing on teachers shoulders.

Initially one of the concerns was how to get children at home engaging in the same activities as their peers in school. What teachers needed was a ready-made set of Science Week resources to make their lives easier. To make it more special we decided to go City-wide.

Through the pandemic we have been spending more time learning, working and staying at home than ever before and machines are increasingly being relied on, so that's a real context for the investigation. We used the idea of a machine learning themed Science Week based around Potterbots.



So, what is a Potterbot?

A Potterbot is a special Scribblebot created in the Potteries! Children collect scrap materials

and combine them with other resources to make their own imaginary learning machine. They imagined it, they designed it, they evaluated it and they tinkered it. They've been through the whole process of being a scientist and an engineer and it's just been amazing.

In conversation
with Lucy Holdcroft of
Moorpark Junior School
– the Science Influencer
behind Project
Potterbot



Who else collaborated in Project Potterbot?

After the initial idea about machine learning we found the Royal Society had published resources similar to the ones we envisaged, so we contacted them and were thrilled when they agreed to collaborate. So I took their resources then adapted and built on them. We spoke to Renee from Curiosity Box and she was excited to be involved in creating the resources. Some local STEM Ambassadors recorded 5 minute interviews so pupils could see and hear people talking about their STEM careers. I must also mention the Ogden Trust has donated kits to local foodbanks, and when we have finished with our kits we plan to do the same.

I didn't really feel qualified to work with these organisations because this is only my fourth year teaching and second year leading science. But just having a small idea, being part of it and watching it grow – it's been remarkable how it's progressed.



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This image of the Gladstone Pottery Museum is a mosaic of 2000 pieces of pupil work - explore them [HERE*](#)

How big did it grow?

We invited schools to join this free collaborative project and initially we had about 30 schools. Then we arranged some on-line sessions so teachers could find out more – by then we got up to 50. We said tell your friends in other schools and by last week we had 72 schools. We've had a few Staffordshire schools sign up as well which makes it broader than Science across the City. In the space of 4 weeks we achieved all of this. It is so exciting to be part of it.

The basic Potterbot activity can be adapted to a wide range of ages and although we designed the resources for years 5 to 8 we have had Infant Schools and High Schools sign up so the project is also supporting transition between schools.

What part did you play?

I created some ready-made plans for teachers to give the children a basic understanding of machine learning using the resources already available from the Royal Society. These run alongside the main Potterbot activity. When I was asked to present the resources to other schools in a live Zoom session that was a big step for me, quite nerve wracking but it gave me a real sense of achievement. I now have so much more confidence.

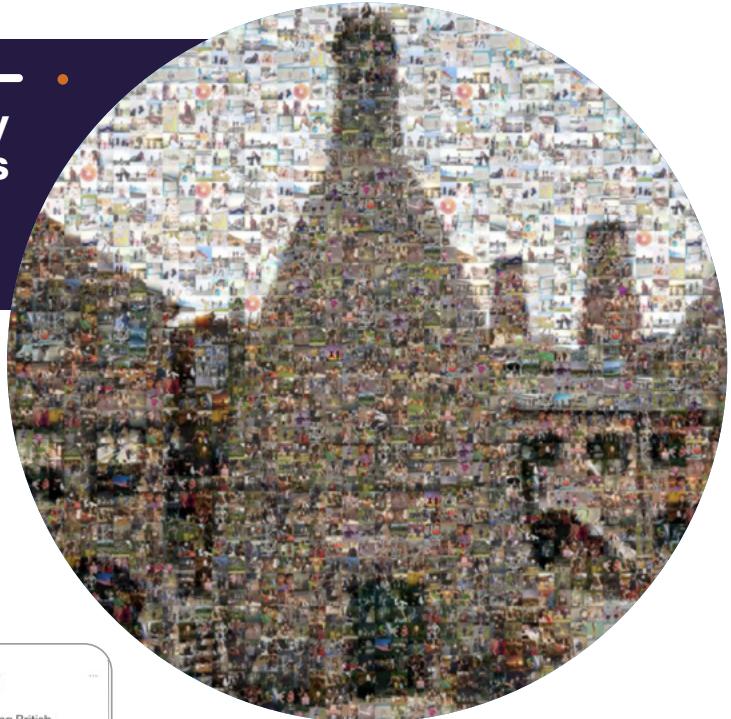
Tell me about the mosaic

One of the most exciting things is the online mosaic. Schools have been able to take pictures of the children's creations and upload them to create a mosaic in the form of Gladstone Pottery Museum and perhaps longer term it will be displayed somewhere.

What did Project Potterbot provide to schools?

Each school received one class box of resources, plus fifteen individual kits so any disadvantaged children who were isolating could have access to the materials and engaged in the same task via Zoom. The written materials are all live on the website as downloadable resources.

We created a **collective classroom** with schools across the City engaging in this big project. It's just brought everybody together. Just seeing the children's faces creating something out of scrap has been amazing. Adding the motor turned it into something that can move as well.



We've got a Science Influencers' WhatsApp group where brilliant pictures were posted along with some great feedback. We also asked schools to Tweet and post pictures of the children's work #Potterbotnot, so that we could get it trending.

This sounds like an amazing success; how do you ensure it continues?

Being back in school has been demanding for some teachers and they chose not to take part in Science Week, but they are planning to create Potterbots for the Great Science Share for Schools (GSSfS). The good news is they can still add to the online mosaic that will stay live until June. In our school children in other year groups can also create Potterbots during the GSSfS. The Potterbot task can lead to a CREST accreditation. So, hopefully schools will take it further and children will be able to work towards a CREST award.

And what difference has Project Potterbot made to you?

Who knew I was capable of creating something like this; being part of something so big? Teachers in my school and beyond have come to me with questions about the project so I'm becoming recognised across the City. There was an [article in the Stoke Sentinel](#) and even in the [Guardian](#). I have also written a Blog for the Royal Society website.

It's wonderful to know that I've had an impact and that people are genuinely interested in what I created.

*<https://stemday.co.uk/potterbotlive/>

