

Polli:Gen

Polli:Nation for the Next Generation

Evaluation summary



Green Recovery Challenge Fund



The National Lottery Heritage Fund



CFEY | The Centre for Education & Youth



“When we first went outside, some of them, I don’t think they’ve ever seen a stinging nettle... not all of them have gardens, not all of them have outdoor space that they go.”
—Lead Teacher, School 1

Foreword

For over thirty years, Learning through Landscapes has been advocating for regular time outdoors to be valued, appreciated and recognised as a crucial part of all stages of education.

We passionately believe that outdoor learning, play and connection with nature are fundamental to children’s wellbeing, development and engagement with learning. We’re committed to ensuring that every child and young person can access the outdoors every day.

In the wake of pandemic lockdowns and reports of growing youth anxiety over the climate crisis, our mission has only become more important in recent years.

It’s the reason we deliver projects like Polli:Nation for the Next Generation (Polli:Gen).

Made possible by the UK Government’s Green Recovery Challenge Fund, Polli:Gen took its roots from our 2015 award-winning Polli:Nation project. Over the course of ten months, Polli:Gen worked to engage children across Leicester with their local environment and natural heritage. In particular, our team empowered children to learn how to make outdoor spaces better for pollinators, to share that knowledge with wider communities, and to take environmental action.

It’s been amazing to see the results. More than one fifth of Leicester schools and over 800 children and community members participated, and together they made substantial environmental improvements across the city – planting trees, creating nesting habitats and building ponds to make shared spaces throughout Leicester more pollinator-friendly.

The children truly made the project their own. So, we’re delighted to see this report reflect their raised levels of environmental stewardship, as well as their increased

knowledge of and engagement with the natural world. While we hoped for more substantial gains in children’s mental and physical wellbeing, we recognise that Polli:Gen was delivered in a tumultuous time, against a background of ongoing pandemic disruption in a city hit particularly badly by COVID-19.

We’re grateful to our project partners, the Wildlife Gardening Forum and Leicester City Council, for their invaluable support throughout. The council’s passion for engaging children with the environment shone through the entire project, and Leicester is truly leading the way in delivering green education.

Now, we’re excited to explore where the seeds sown by Polli:Gen will lead. During this project, hundreds of Leicester children have learned that little changes can make a big difference to their local environment and, ultimately, to their planet.



Carley Sefton
CEO, Learning through Landscapes

Polli:Gen

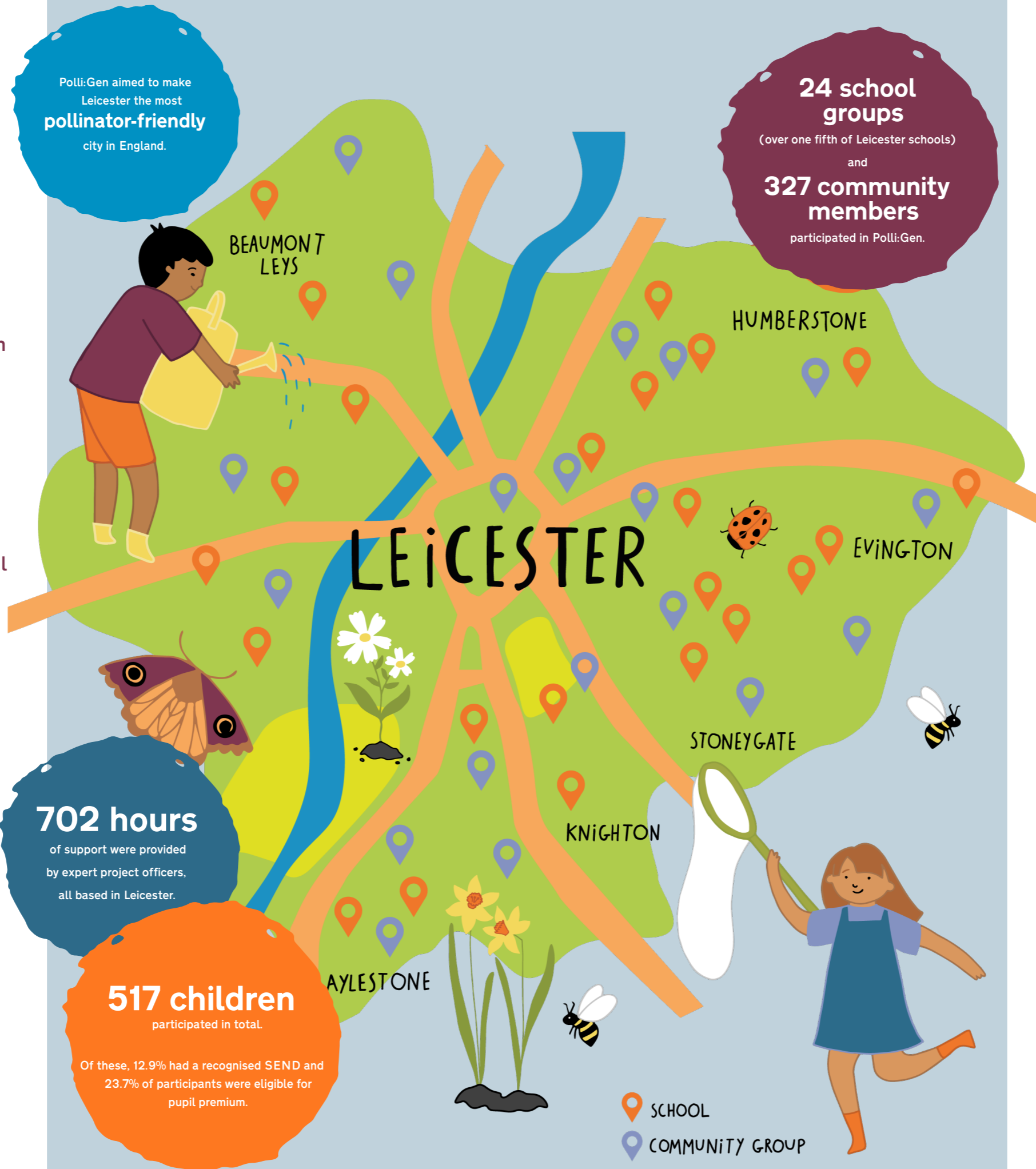
Polli:Nation for the Next Generation

Polli:Nation for the Next Generation (Polli:Gen) is an outdoor learning project, run by the charity Learning through Landscapes in partnership with Leicester City Council and the Wildlife Gardening Forum, and funded by the UK Government's Green Recovery Challenge Fund. This fund was developed by DEFRA and is being delivered by the National Lottery Heritage Fund, in partnership with Natural England, the Environment Agency and the Forestry Commission.

Polli:Gen project delivery ran from May to December 2021, throughout a summer and autumn term heavily disrupted by the COVID-19 pandemic.

The project aimed to engage with children and community groups across Leicester to teach them about their local natural heritage and how to create pollinator-friendly school grounds and community areas. Polli:Gen also sought to improve young people's connection with nature, increase their knowledge of pollinators and their importance, and make improvements against a range of additional outcomes, such as social wellbeing and physical activity.

Alongside child-level impact, Polli:Gen intended to change the attitudes and behaviours of parents, carers and the local community towards pollinators and nature more broadly.



Project evaluation

The Centre for Education and Youth (CFEY) was commissioned to conduct an independent evaluation of the Polli:Gen project.

A mixed-methods impact and process evaluation was undertaken, and both quantitative and qualitative data were used to draw conclusions.

Quantitative data was collected through a baseline survey in September 2021 and an endpoint survey in December 2021, and data was collected for between 51.3 – 61.5% of participants (the number of responses varied between questions). The survey included a knowledge test, validated scales for wellbeing and connectedness to nature, and additional questions on participants' outlook towards nature, their community and their role within it. In addition, school teachers involved in Polli:Gen (lead teachers) submitted demographic data about participants' ethnicity, pupil premium and SEND status.

Qualitative data was collected from interviews with four case study schools. Baseline and endpoint interviews were conducted with Polli:Gen project officers, lead teachers, members of the schools' senior leadership teams (SLT), and community members (where applicable and possible). CFEY also conducted baseline and endpoint focus groups with children participating in Polli:Gen.

About this report

The effectiveness of the Polli:Gen project was assessed against eleven outcomes, separated into overarching themes. The following pages highlight key findings related to these outcomes, providing strong evidence that the project delivered positive results for a diverse range of children across Leicester.



Children will gain new knowledge.

Children were tested on their knowledge of three topics in September 2021 and at the end of the project in December 2021.

In knowledge tests about the **importance of pollinators**, children answering 2 or more questions (out of 3) correctly increased:

from 24% to **53%**

In knowledge tests about **features of pollinators**, children answering 3 or more questions (out of 4) correctly increased:

from 34% to **41%**

In knowledge tests about **school grounds**, children answering 3 or more questions (out of 4) correctly increased:

from 18% to **35%**

“We’re starting our own project and there’s not a lot we know about bees and pollinators. So we have actually learned quite a bit from the kids.”

—Community Group Representative, School 1

“They can tell you lots of facts... things about bees that they wouldn’t have known before.”

—Lead Teacher, School 4

Intended outcomes

- Children have improved knowledge relating to pollinators and their importance.

Key findings

- Children’s knowledge of the importance of pollinators, features of pollinators and the school grounds all increased over the course of Polli:Gen.
- There were marked improvements in knowledge across all topic areas for children with a special educational need or disability (SEND) and those eligible for pupil premium.
- Three factors appeared to contribute to successful knowledge acquisition: the varied and engaging nature of well-planned delivery sessions, Polli:Gen’s curriculum design, and the alignment of content with science curricula (particularly at KS2).
- There is significant evidence that Polli:Gen’s knowledge component and the opportunity to apply learning outside of the classroom may have attracted schools to participate.

How did we see this in our case studies?

- During one school’s end-of-project community group visit, the lead teacher noted that children were explaining facts about pollinators to community members. In particular, she recalled one child with an identified SEND, who was able to give detailed information about pollinators which she had learned at the start of the project.
- Community members were impressed by the information children were able to share about pollinators and habitats, and in one case this proved useful in the development of a community group’s own pollinator-related project.



“Being out of school, being able to talk to the people in their community, family members, friends (...)

They’ve actually taken what they’ve learned and used here and taken it home, which has benefited everybody else.”

—Lead Teacher, School 4

Children’s changed behaviour will improve environmental heritage.

90%

of participants surveyed at the end of the project agreed or strongly agreed that they can change their school grounds to help pollinators.

Intended outcomes

- Children feel empowered to enact physical changes that help pollinators and other wildlife in their school grounds.
- The condition of heritage has been improved in school grounds and community group spaces.
- Children and the wider community have changed their behaviour.
- Children intend to make long-term changes to their behaviour.

Key findings

- Participating children felt more capable and empowered to make pollinator-friendly changes to their school grounds following Polli:Gen. Throughout the project, they made significant improvements to their school grounds and, to a lesser extent, community group spaces.
- There is compelling evidence that the project led to children changing their behaviour towards pollinators and nature more broadly. Across several schools, children expressed a desire to make long-term changes to their behaviour following Polli:Gen.

How did we see this in our case studies?

- Children in two case study schools ran sessions for younger year groups to showcase their Polli:Gen work and ensure that the changes they made will be sustained in the longer term. One school also established an after-school gardening club, to allow children from other year groups who were enthusiastic about the project to participate in maintaining the school grounds’ improvements.
- Children in all case study schools became more protective of pollinators. According to the lead teacher at one school, when children found bees in the school grounds struggling with the cooler weather, they helped protect the bees by transporting them to plants. The lead teacher suggested that in the past these same children would not have noticed this or been concerned.
- Although children held mixed views about their agency to effect change outside the school gates, children at one school began visiting a local park in their spare time to pick litter with their parents.
- A lead teacher at one school reported that Polli:Gen had created a nature space for children that would otherwise not exist in the local area.



“They would start to go into extensive detail about one little experience they’d had with an observation. ...I think that was a positive sign that they were actually looking at things in more detail.”
—Project Officer

“There are not really many trees. They’ve chopped them down. That’s not really good [because trees] take in the CO2 and then replace it with oxygen.”
—Child

Children will feel more engaged with nature and their local environment.

When asked whether their actions will lead to changes to their school’s natural environment, the number of participants who strongly agreed increased: **from 27% to 45%**

Intended outcomes

- Children feel more engaged with issues about their local environment and natural heritage.
- Children feel more connected with nature.

Key finding

- There is strong evidence that children’s engagement in local issues about their local environment and natural heritage increased during Polli:Gen. However, children’s connection to nature started at a high baseline and remained the same throughout the project.

How did we see this in our case studies?

- Children reported that they were able to apply their knowledge of biodiversity and plants to their local area, recognising particular species and noticing aspects of local spaces that were more beneficial to pollinators.
- Children had strong feelings about how nature had not been looked after in their local area, and linked these feelings to their experiences and knowledge acquired during Polli:Gen.

- Despite survey data suggesting that there was little change in children’s levels of connection to nature, teachers reported otherwise. At one school, the lead reported that they had asked children about nature encounters they had on a semi-regular basis throughout the project. By the end of Polli:Gen, children’s stories contained greater detail and a greater number of children were eager to share stories.
- Across all case study schools, many children noted that they had gone from being afraid of minibeasts to feeling comfortable picking them up and all were able to describe, in simple terms, how human actions could impact pollinators.





“It’s not going to change overnight.
This is going to take time.”

—Lead Teacher, School 1

Participants will have improved wellbeing.

“Instead of being stressed – one hour-long lesson has so many things to do – it’s just a calming activity. Just go outside in nature and explore and discover [something] different.”

—Child



Intended outcomes

- Children have improved levels of physical activity.
- Children have improved social wellbeing.
- Members of the wider community, including families and community groups, have greater wellbeing.

Key findings

- Data showed that physical activity declined very slightly throughout the project – likely due to COVID-19 disruption and the colder weather – and that the outcome of social wellbeing was mixed. Again, this should be recognised in the context of the ongoing pandemic.
- Despite the lack of improvement in quantitative data, a number of instances were observed with the potential to improve children’s wellbeing.

How did we see this in our case studies?

- One lead teacher noticed some small changes in resilience, with some children reacting more positively to being cold, wet or muddy. However, they added that some children needed a longer timescale to develop this sort of resilience and attitude adjustment.
- Children at one school reported that they enjoyed the sessions being outdoors, and that they valued a break from the classroom and their books.
- Community groups and case study schools saw the value of engaging with one another, and the potential for the project to lead to wider community wellbeing. One lead teacher expected to see benefits to the wider school community in the summer, when children can get outside for longer periods.
- In one school, teachers felt that children working together in teams helped those who had recently arrived at school (and in the UK) to make friends and develop confidence in their peers.

Recommendations



The Centre for Education and Youth (CfEY) makes the following recommendations for any future roll-out of Polli:Gen:

For Learning through Landscapes

- Carry out more detailed discussions with senior leaders and lead teachers about how Polli:Gen's curriculum relates to the school curriculum.
- Consider whether the current length of the Polli:Gen project is sufficient to make sustained impact at the child, school and community level. This may also involve considering how sessions are spread across the term.
- Develop the community component of the Polli:Gen project. This could involve improving guidance for schools and community groups and how they might collaborate. Project officers, schools and community groups should ensure that their goals are aligned and that results are achievable in the time-frame.
- Allow participant senior leaders and lead teachers more flexibility in deciding the balance between classroom and practical activities. This may vary between year groups and involve trade-offs between outcomes, which should be discussed with schools.
- Consider developing on the areas of unexpected positive impact highlighted in this report, such as professional development for staff.
- Maintain contact with participant schools and consider commissioning future work that looks at the longer-term impact of Polli:Gen on participant children, the school and the wider community.

For participating schools

- Consider how Polli:Gen might build on existing infrastructure the school has to increase benefits derived from the project. This could be physical infrastructure (eg. a small school garden) or staff infrastructure (eg. a professional development lead).
- Work closely with LtL prior to the start of the project to ensure that Polli:Gen design and delivery is closely matched to participant children, the school's curriculum and intended outcomes.
- Protect the capacity of the lead teacher and draw on other members of school staff, where possible, to mitigate workload implications of project participation.
- Continue to work with the community group after Polli:Gen formally finishes to further project impact.





Learning through Landscapes

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