

# The Curiosity Programme

## Final Evaluation Project report

substance.



GraphicScience



### Curiosity programme aim:

To increase delivery of informal science learning (ISL) as science for youth development to improve more disadvantaged young people's lives and their relationship with science

### Curiosity projects' aim:

To increase the number of young people who are safe, happy, secure and able to reach their potential, through engagement with ISL

### Evaluation aim:

To better understand the distinctive role of ISL in achieving positive impacts for disadvantaged young people

# Programme overview

Delivery formats range from weekly drop in's to residential programmes. Projects are located across the UK and Northern Ireland, from urban settings to rural environments. Activity settings range from youth club facilities to beaches, parks and science centres.

During year 3 we expanded the input from young Research Ambassadors. The Research Ambassadors were participants in projects who signed up to collect data of their own through observations, interviews and focus groups. They were supported by the evaluation team and project staff.

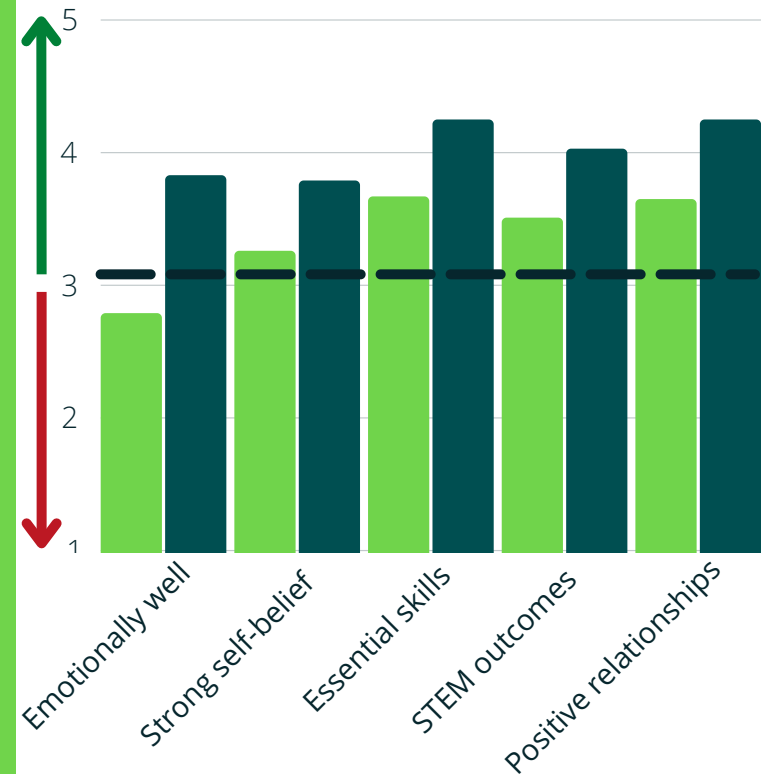
Each project works towards three 'Differences' they will make in the lives of their participants, through informal science activities. These Differences contribute to aspects of youth development through Children in Need's Building Block Framework and the Curiosity theories of change. There are 7 Building Blocks: Essential skills; Physically safe; Physically well; Emotionally well; Positively empowered; Positive relationships; Strong self-belief. The Curiosity programme adds another aspect: STEM-type outcomes such as problem solving and building curiosity.

## Evaluation methods

- Developed both programme level and project level theories of change
- Used these and the BBC Children in Need Building Block framework to develop a robust evaluation framework
- Standardised cross-programme surveys tailored to the building blocks each project works towards
- Bank of qualitative tools - 4 key methods to explore outcomes further
- Multi-year case studies comprising interviews, focus groups and observations in addition to the key research methods
- Young Research Ambassadors to enhance youth voice

**STEM = Science, Technology, Engineering and Maths**

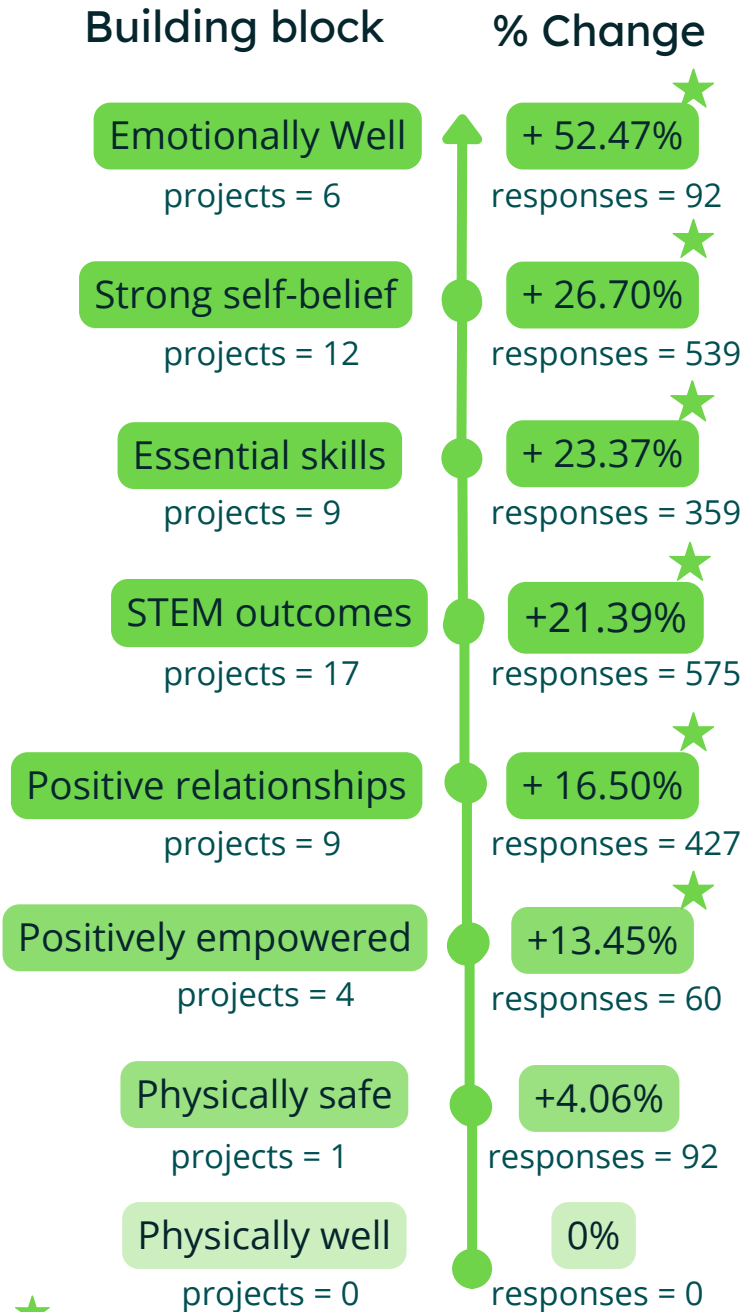
## Year 3 biggest outcome areas:



Survey participants were asked to rank their responses out of 5. A score of 1 or 2 indicates a negative response, a score of 3 indicates a neutral response and a score of 4 or 5 indicates a positive response.

The survey data showed statistically significant increases in 6 areas: emotionally well; strong self-belief; essential skills; Science, Technology, Engineering and Maths (STEM) type outcomes, such as problem solving skills and critical thinking; and positive relationships.

# Programme outcomes



★ statistically significant change



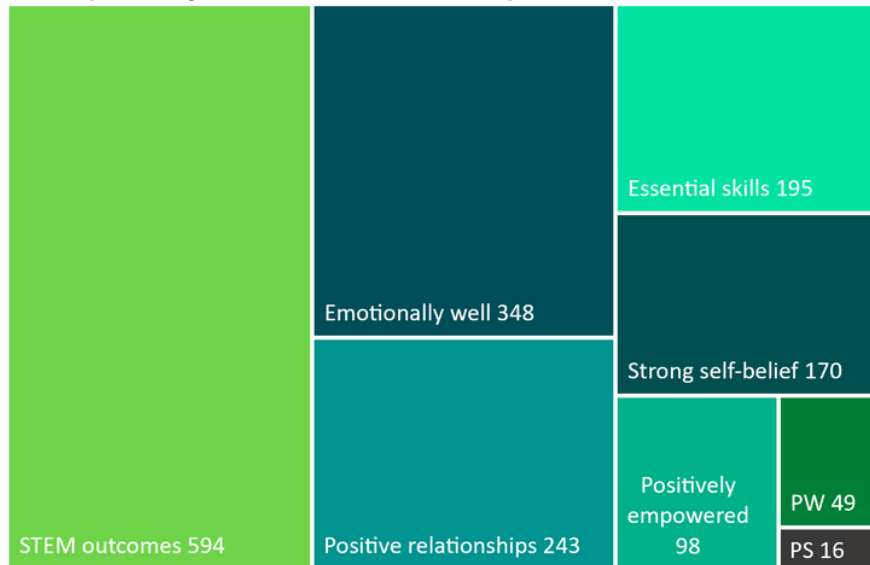
## Outcomes

Both the qualitative and quantitative data demonstrate that conducting informal science activities for youth development contributes to achieving traditional youth work outcomes such as emotional wellness, building strong self-belief, and developing positive relationships.

The data also demonstrate that conducting informal science activities for youth development leads to some distinctive STEM-type outcomes, such as problem-solving skills, increased curiosity, increased confidence in learning, and improved collaborative working. An increased resilience or comfort with the role of failure is also reported.

Having fun and enjoyment is the most commonly described aspect of emotional wellness. Linked to improved collaborative working, building friend and peer relationships is the most commonly reported aspect of developing positive relationships.

## Frequency of reference in qualitative data



"Here, you're not getting marked on it, no one's going to judge you" (YP)

"I feel like actually what we do is just create a space where young people can explore and they have the tools to be able to explore. And by doing that they learn all of these essential skills" (Project lead)

Physically safe 16

Physically well 49

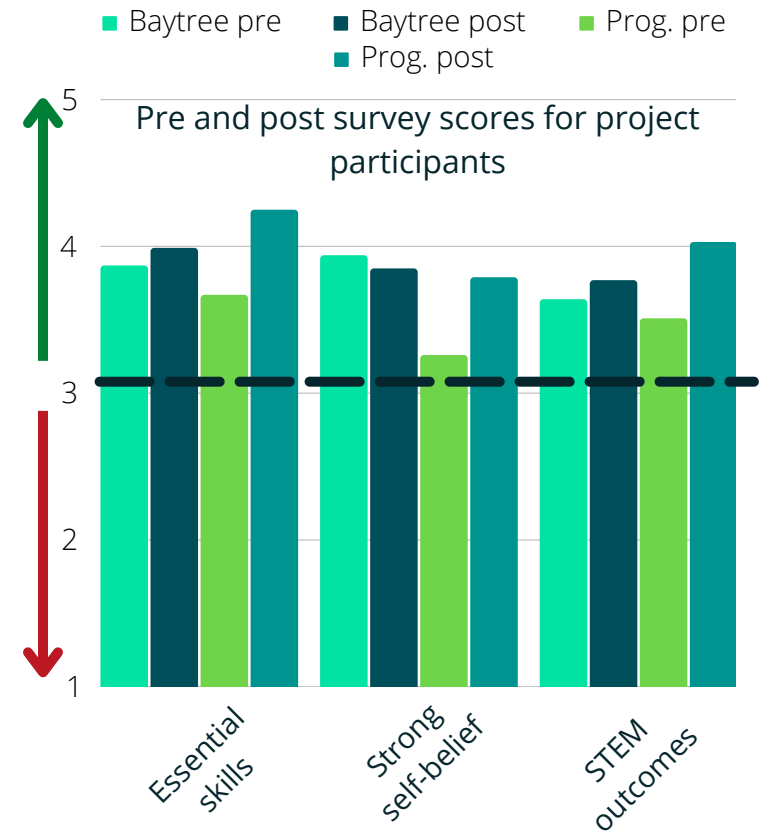
# Project outcomes



## Project: Baytree Centre

Your difference	Coded difference	Building block
Increased enjoyment of learning	Engage and achieve in EET**	Essential skills
Develop positive life skills	Improved life skills	Essential skills
Improved self-belief	Sense of self and identity	Strong self-belief
		STEM - type outcomes

\*\* Education, employment, training



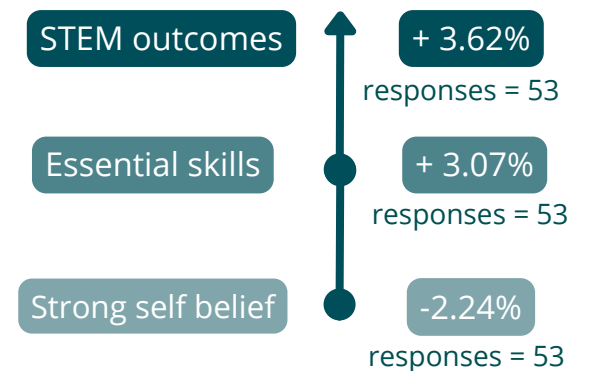
The bar graph shows the change in each building block at project level, and in comparison with the programme averages.

The STEM outcomes had the lowest average starting score of the building blocks Baytree work towards, with an average starting score of 3.64. There was a 3.62% increase in this area, the largest increase seen.

Essential skills saw the second largest change, with a percentage increase of 3.07%. This area had the highest average post score at both programme and project level. The average post score at project level was 3.99, whilst this was 4.25 at programme level.

The average pre and post scores for strong self-belief were both higher at project level than across the Curiosity programme. Whilst there was a percentage decrease of 2.22% in this area at project level, the average post score remained high at 3.85. The project level percentage changes are not statistically significant.

## Outcomes - year 3



# Project outcomes

Frequency of reference in qualitative data - year 3



\*project building blocks

[Is there anything that coming to Maths has made you want to do or try in the future?]  
"learning how to practice at home, helping each other as a skill, [this has] translated into school as well"

YP feedback

"being ok with making mistakes"

YP feedback

"it was really fun, I learned a lot through having fun"

YP feedback

STEM outcomes were the most commonly described within the qualitative data, with particular reference to STEM specific skill development. Increased aspirations regarding STEM, increased curiosity, increased comfort with the role of failure, and improved sense making were also reported.

Whilst progress towards the project building blocks of strong self-belief and essential skills were referenced, progress towards building positive relationships and being emotionally well also emerged.

Developing friend or peer relationships was the most commonly described aspect of positive relationships. Family or carer relationships and relating to trusted adults were also described, suggesting a wider influence of the project and Curiosity programme than that within the sessions themselves.

All references within the 'emotionally well' block related to being able to have fun and enjoyment, often a key enabler for other outcome areas.

Being able to engage and achieve in education, employment or training was the most commonly described aspect of building essential skills. Improved social skills were also reported.

Building confidence and self-esteem, and having pride in personal achievements were the two elements of having strong self-belief reported.



substance.



GraphicScience

Authors: Substance / Graphic Science Consortium

Led by Dr. Kath Edgar and the Substance research team (Dr Johannes Langer; Charlie Grosset; Brigid Bell; Dr Samantha Hook; Joe Williams) and Louisa Fox & Ben Johnson of Graphic Science.



November 2023