Partnership Grants case study:
Horfield C of E Primary School

Horfield C of E Primary, a state school in the South West of England, received a Partnership Grant in the 2021 round. The grant supported the whole school of 420 pupils in developing knowledge about alternative energy sources, their pros and cons, and the impact on climate change.

Each year group was allocated an energy source (hydro, tidal, wind and solar) to explore, test and observe the creation and storage of energy, using different lines of enquiry and science skills. The outcome of their findings informed how the school powered the lights in a new reading cabin. Working with a STEM partner from the Ministry of Defence, the students were able to answer the question: Can we power the reading cabin in our school grounds with renewable energy?

The project was run over 4 months, allowing the students to feel 'immersed' in the investigation. A launch event celebrated the ingenuity of human engineering, addressed current issues around climate change, and introduced engineering as a relevant and attainable aspiration for all young people.

The STEM partner was able to spend time in the school, working with each of the classes and encouraging children to question and learn as they investigated. The project fostered a sense of problem solving as a team. Teachers noticed children sharing ideas, improving their language and questioning skills when they were encouraged to plan, try out and evaluate, then try again. Parents spoke of children talking at home about their part in the challenge.

In July 2022, Horfield Primary School won the Innovation Award, part of a local Groundbreakers competition, **"for involving the whole school in researching renewable energy options, reducing litter and recording a song as a way to spread their eco message beyond the school".**

Right:
Lead teacher and students at Horfield C of E Primary School engaging in the STEM club.

THE ROYAL SOCIETY

Inspired by the project and wanting to share what can be done at a local level to combat a global issue, Year 6 pupils composed and recorded a song, 'No Matter What', which they shared widely on social media and which was used in a film made by the Avon Wildlife Trust to celebrate the school making a difference by using its grounds to promote biodiversity. The project was entered for a Groundbreakers award, a competition across Bristol to inspire and equip young people to take action for climate and social justice, through science and engineering.

The STEM partner became known as their resident engineer and still runs a STEM club in the school. The lead teacher highlighted that the biggest impact on the school was: "only a small proportion of children before the project perceived themselves to be engineers and after the project this figure had risen to 85%". She also highlighted that the greatest impact for her was children building their understanding of what engineering is and using engineering skills to demonstrate how engineering is a factor in their everyday lives.

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Above:
Students taking part in practical STEM investigations, which have been more embedded in the school.