

## Centre for STEM Education

### Sharing ideas, joining up good practice and celebrating teaching and learning in primary science

Article by Claire Murrell, Science and EYFS Lead at Woolenwick Infant and Nursery School, Stevenage

Woolenwick Infant and Nursery School in Stevenage is exceptional in its pedagogy. The children are valued as unique and competent learners; curious and capable of constructing their own learning through investigations. Science plays a significant part in the daily teaching and learning as all the educators at the school understand the power of enquiry, particularly if it is led by the children's natural curiosity about the world around them. Educators listen to the children's questions and facilitate their research, which then leads to multidisciplinary, cross-curricular projects. The school provides a wide range of experiences which extends children's interests and knowledge and allows learning from meaningful first-hand experiences. The intention of this is to deepen the level of thinking and understanding and to provide life-long memories as a result of these concrete experiences.



One of the ways in which this is implemented, is by involving children on the daily running of our school allotment and kitchen garden. All children are given the opportunity to be involved and in some cases the allotment is used as an intervention to promote positive mental health and well-being for our most vulnerable children. Children experience and learn about the seasons, life cycles and nutrition, as well as harvesting, composting and pollination. They experience the whole cycle of planning, planting, nurturing the plants in the polytunnel and eventually planting out once they are big enough and the weather allows. The children then nurture the plants, keeping them watered and free of any other creatures that may want to have a nibble. Once the plants are ready to be harvested, the children bring them back to school to be prepared by the school kitchen and then enjoy the fruits (and vegetables) of their labour.





The impact of this is powerful. Many families live in flats with no outside space and so have had little or no previous experience of observing how plants grow. The dispositions and attitudes needed to plan, negotiate, nurture and wait for nature are not often practised in this modern, fast-paced world, where most desires are met instantly. The children learn to be resilient when dealing with the disappointment of plants being eaten, dying or just simply not growing the way they intended. All of this contributes to the development of scientific skills as the children become creative problem solvers, conscientious human beings and life-long learners.

During the lockdown period due to the COVID-19 pandemic, the school has been open to provide childcare for key worker children. The daily care of the allotment and kitchen garden has continued. This has raised the mental health and well-being of the children attending school, as they are kept busy with the practical learning outside, enjoying the fresh air. What could have been a very anxious and uncertain time for them has become a happy memory. The school marked the recent *National Gardening Week* and *Earth Day* by sharing pictures and updates of the flourishing plants to the families via the school newsletter and email. This update was received with positivity; earlier in the year the families had raised money for the polytunnel. By creating a life-long love of science, we aim to inspire a generation of pupils to pursue careers in science at a time when science is more important than ever for the future of the world.

Our thanks to Claire Murrell and all the staff at Woolenwick Infant and Nursery School for telling us about this exciting initiative.

If you would be willing to share some of the work you have been doing in your school to support science, computing or wider STEM subjects, please get in touch with us at Centre for STEM Education, University of Hertfordshire: [stem@herts.ac.uk](mailto:stem@herts.ac.uk)

