



PVI nursery and
pre-school settings

CASE STUDY



School based nurseries

TEACHING AND MODELLING LANGUAGE THROUGH STEM AND SUSTAINABILITY IN THE EARLY YEARS

ALFRETON NURSERY SCHOOL, DERBY

At Alfreton Nursery School, outdoor education is the cornerstone to provision. A biophilic approach to the early years environment is evident in all aspects of school and sustainable education has been subtly interwoven into a unique early years approach. As a passionate early years teacher with over 25 years' experience, I am fortunate enough to work with colleagues who take every opportunity to teach and model language, through a diversity of opportunities. STEM learning is used as a creative thread, connecting global sustainability with aspirational language development.



MATERIALS

One aspect to our approach can be seen in the outdoor STEM Hive. This outdoor space is dedicated to environmental education and supports children to understand the interplay between the natural and industrial worlds. The language of ecosystems, deforestation and global warming is modelled by adults and taught to the children within every day experiences. The STEM Hive is carefully designed to reflect the ethos behind its construction. The materials in the Hive are recycled or have been donated to the school. Members of the local community have taken joy in seeing loved ones' treasured objects being immersed in the education of young children and resources destined for landfill now have a chance to ignite learning and engage children's sense of wonder.

For example, a Doctor Who Tardis, which will remain as the lasting legacy of a local gentleman, is now used as a science investigation space, for use with mirrors, torches and kaleidoscopes. The modelling of scientific language, e.g. reflection, silhouette, shadow . . . is taught alongside real learning opportunities. Teachers 'comment, providing a sentence to articulate an observation', as well as 'asking questions . . . as part of activities'. Adults 'encourage children to sequence and apply their thinking and language skills, drawing out key points and sharing new language with others. (EEF. Evidence Store. Teaching and modelling language).

DEEPER THINKING

Role play, music, science, maths, mark making . . . all familiar but taught through the lens of sustainability. A role play journey to the seaside, but how could we get there without hurting the earth? Mark making with chalks and boards, but choosing to leave messages for the squirrels and birds, explaining how we will take care of their homes. Building bridges with recycled wood and plastic pipes, from the inspiration of journey's through the Amazon. Children are supported to build on concepts, employing critical and creative thinking, whilst adults narrate, 'providing a rich or extended articulation of an observation that almost provides a running commentary of a child's activity (EEF. Evidence Store. Teaching and modelling language).

The sensory exploration opportunities within the Hive make it an ideal space for children with SEND. From water and ice, soil and sticks to wind and sun, colour and pattern. Children with diversity of need have their senses awakened.

Instead of passively receiving information, our children take a more philosophical approach. As concepts are presented, e.g. deforestation, children are supported to communicate their thinking and expand their vocabulary. Exploring the layers to a problem or concept leads to alternative perspectives for the future along with enabling children to use highly aspirational language.



CONCEPTS

Three other pods provide opportunities to explore deforestation, pollution and global warming. These concepts are explored through every child's real life experience as well as by expanding their understanding of the world.

Education boards which can be found throughout the Hive, illustrate examples of industry mirroring the wonders of nature. For example, a dam made of concrete and steel holding back water in a reservoir, alongside a beaver building a natural dam in the wild. A helicopter sitting alongside a sycamore seed and a whale alongside a submarine: all serve to stimulate conversation and ignite thinking. Children explore animal habitats within the Hive, alongside considering global ecosystems. Teachers model the use of language for the purposes of debate and concept exploration. Children learn vocabulary, then add meaning and context to new words.



An area in the Hive is dedicated to growth and decay, giving children the opportunity to directly experience the process of natural decay and observe the impact of the weather and insects on organic matter. Scientific vocabulary is modelled and children mirror and repeat this within their play. Food is observed and manipulated by children through the process of planting and harvesting in the Hive, as well as role play through the lens of locally grown versus imported produce.

There are four main areas within the Hive. A central space lends itself to a more didactic session, where teachers will model language, whilst providing examples of how new language can be used and shared. Time to think and reflect as well as open ended opportunities for collaboration, enhances our children's sense of voice.

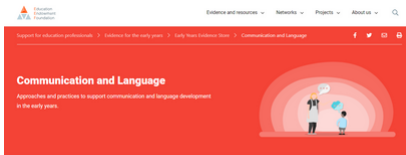
LIMITLESS

Providing children with language is to provide them with access to limitless learning. As a Forest School, Alferton Nursery School understands the value of a nature based curriculum. However, outdoor education is as limitless as language and Forest Schools is only one aspect of a creative and sustainable outdoor curriculum. With creativity and passion, early years environmental education can be innovative, highly aspirational and reflective of local, national and global communities. Highly aspirational language fused with highly aspirational thinking, leads children to greater depth learning. The STEM Hive is a concept and an environment in which children can explore the symbiotic relationship between the natural and industrial worlds, fostering a belief in the value and voice of every child for the future.



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REFERENCES



Approaches for supporting communication and language development

