

Sharing Science in the Wild

Leah Bell-Jones and Jo Montgomery draw out the learning from another place-based approach to GSSfs

A trip to a zoo provides a unique opportunity to connect children with nature and animals in ways that they might not be able to otherwise. (Feucht et al, 2023) (Richardson et al, 2022) The experience of hearing a lion roar or seeing the size of an elephant in real life can really be the spark that lights a fire of understanding and respect toward animals, meaning they are more likely to want to protect and look after animals as they go through life. This also aligns with the DfE's sustainability strategy (2023), which outlines the importance of education in young people being passionate about the natural world, wanting to protect it and being able to influence their wider communities. Using the zoo experience as hooks and inspiration offer incredible opportunities for children to wonder, be curious and ask questions that they can go on to investigate, and share!

Colchester Zoo has been a unique science-sharing space where primary children have shared investigation questions and findings surrounded by a vibrant, real-world living context.



'What types of minibeasts can we find in the school grounds?'



'What happens to seashells in acid?'



'How are coral reefs formed?'



The zoo as a living laboratory

Children's investigations included exploring what plants need to grow, what habitat and conditions frogs need to live, which minibeasts are found in their school grounds, and how cameras work; other groups linked their classroom research about acidity to the marine zone, using vinegar and chalk to test how coral reefs might be affected by acidic oceans.

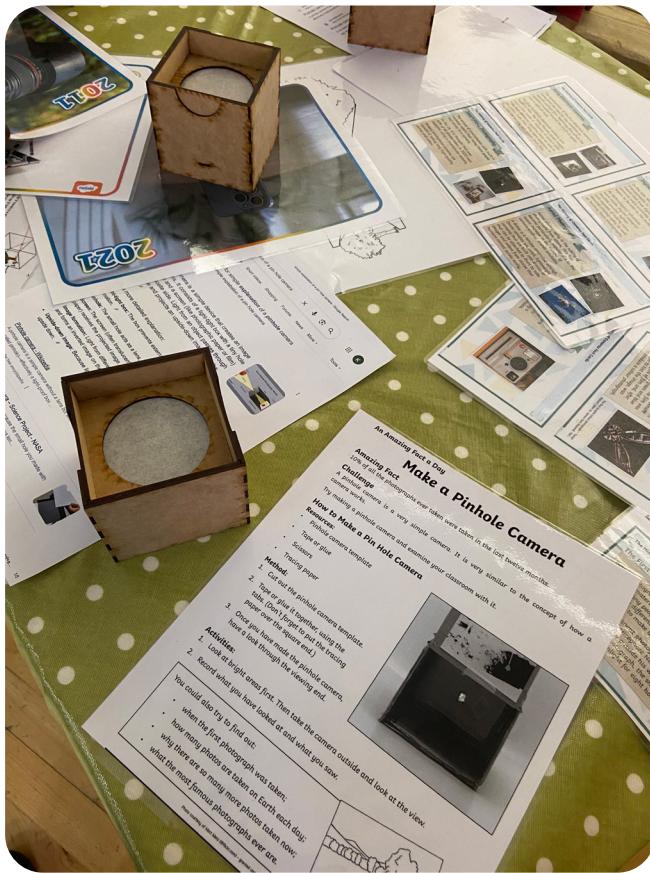
The zoo's education team also helped explain the different scientific research projects carried out at the zoo and how this research supports conservation work around the world. Their examples included:

- **Veterinary research** – such as studying rhino foot health and monitoring leopard hearts
- **Conservation technology** – like using thermal imaging to reduce human-elephant conflict
- **Population studies** – for example, using acoustic monitoring to study bush dogs in the wild

They supported discussions at the different pupil-run stalls by asking guiding questions, helping children share their knowledge, and offering different viewpoints on each topic. They also provided practical support, resources, and facilities for the schools and pupils.

'What I love is the confidence the children develop as they share their investigations and see the enthusiasm of other children when they are listening to their explanations.' Headteacher

By engaging with the zoo's conservation science, children widened their perspectives of who does science and why. They made connections between their own investigations and professional research, developing a more holistic picture of science in action. Visiting the zoo and finding out more about the animals deepened the children's knowledge and inspired further curiosity, questioning, investigating and sharing; increasing the feeling that 'science is for me' and done 'by me', building science capital and supporting opportunities to widen views of who can be



a scientist and what science looks like outside of the classroom (Richardson et al., 2022).

Practical Trip Planning Tips for Teachers

- **Before a visit:** encourage pupils to ask their own science questions about animals, habitats, or zoo life. Use the Great Science Toolkit to generate pupil-led questions.
- **During:** use observation tasks, sketching, and note-taking to advance working scientifically skills, and to develop scientific questions the children may have.
- **After:** revisit questions and plan investigations or design challenges linked to zoo learning.

For many children, the Colchester Zoo GSSfS event was their first chance to be recognised as scientists outside the classroom. Learning science in alternative spaces like the zoo provides unique inspiration, encouraging pupils to ask questions, investigate ideas, and share their scientific thinking.

'The children have got so much out of the event and been really engaged. Even the quieter ones have really come out of themselves and just loved it!' Teacher

REFERENCES AND FURTHER READING

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Colchester Zoo learning resources: www.colchesterzoologicalesociety.com/education/learning-resources/