



## A message from Mrs Powell, our Science lead:

Science is something which I feel incredibly passionate about as it's all around us and ever changing. As a UN Accredited Climate Change Teacher, I am keen to focus on environmental science at our school and by making our school more eco-friendly.

As part of developing Science I am always keen to hear from parents / carers who are involved in the industry in any way and would be willing to share their knowledge and expertise with the children.

## Design and Purpose

At Darlinghurst we are inquisitive and active learners who ask lots of challenging questions about how things work and the world around us. As part of our curriculum design, we ensure learning in science is holistic and authentic. Science plays is woven into our Edison curriculum throughout the year and will be a part of almost every topic taught throughout both key stages, enabling children to have connected experiences through varying situations.

Within lessons, science will be taught via a mixture of practical activities and investigations along with written tasks such as explanations of what children have observed and reasons why they thought something happened. Science lessons build on knowledge and skills from previous years across key themes such as plants, forces or materials. There are 6 key areas of Scientific Enquiry which are covered in lessons from Year 1 to Year 6: classification and identification; observation over time; research; pattern seeking; fair and comparative testing and exploration. During each topic the key learning will be reinforced with links across curriculum such as reading scientific texts in guided reading.

## Difference

Our children learn to be successful learners through questioning and testing ideas. They develop the skills of independence through making predictions and testing ideas; confidently questioning and reasoning; communicating and presenting their ideas as part of a team so that they are effective contributors. They gain the knowledge of key facts and concepts within biology, chemistry and physics making connections with their prior knowledge. Our children are equipped to be confident individuals through critical thinking and team players as a result of learning with others.

At Darlinghurst, we know our children need the knowledge and the skills to succeed. It is a continuing process to encourage learning through experiences to best ensure that our children are prepared for the complex world they will be living in when they leave school. We offer our children a wide variety of experiences in Science to help prepare them for any changes they may face. For example, using real-life situations and purposes to introduce and end a science topic through exploration and investigation. We have visitors in school who help children gain a varied and invigorating curriculum.

We have a long-standing connection with WHSB whom teach and demonstrate science learning, preparing them for change as to what's to come as part of the transition to secondary school. We also have links with Mad Science who run sessions in school including assemblies and an after school club enabling our keen scientists to further challenge themselves and feed their passion for science.

As part of science week, not only were children investigating and conducting experiments but we also made links to science-related jobs. This highlights the importance of not only enabling successful learners but also preparing them for a future in science.

Our homework and home learning encourages children to be effective contributors by discussing and debating scientific theories and phenomena. For example, children can take part in environmental science through tasks set on DB Primary and share what they have been doing at home.



## Science Reflections

### Autumn 2021

We started the school year with lots of science-based topics as part of our connected curriculum. Year 1 learnt about different materials and how toys move including exploring some old toys used in Victorian times. Year 2 and 5 were learning about different materials which then helped them design and make new products. Year 2 designed party hats and after investigating the best materials for thermal insulators, Year 5 designed and made their own lunchboxes. Year 3 learnt about electricity and enjoyed practical sessions making circuits and Year 4 learnt about sound and light. Year 6 learnt about space and enjoyed discovering what life is like for astronauts.

### Spring 2021

In the Spring term, we celebrated Eco Week. We had different visitors talk to our children via teams including Organically Epic and Essex County Council. In EYFS and KS1, children sorted rubbish and learnt about recycling. Years 1 to 6 also learnt about Climate Change through this term's focus topic. Children in Year 5 created a rap about what we could do to solve the problem and Year 6 wrote a newspaper report on the effects of climate change on animals.



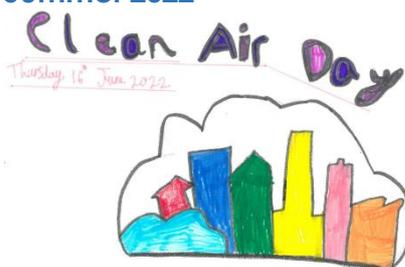
Within our Edison curriculum, children enjoyed learning about forces, evolution and states of matter. Year 2 investigated forces by making paper helicopters and investigating their drag. Year 5 learnt about centrifugal forces and how fairground rides work. Year 6 learnt about human evolution.

We also took part in the National Science Week in March whereby everyone took part in a variety of science experiments and learnt about different scientists. EYFS learned about dinosaurs and created a huge working volcano. Year 1 planted sunflowers and wrote about them. Year 2 went on a tree hunt in our school grounds. Year 4 investigated what would happen to eggs if they were placed in different solutions. Year 5 were visited by WHSB and got a taster for what



secondary school science would be like.

### Summer 2022



We have had the opportunity this term to really make the most of our school grounds and nature to deepen our children's knowledge and appreciation for the natural world. Across the school, children have been conducting bug hunts, identifying wildflowers and trees, and using the school grounds for different lessons. In June, we asked children to walk to school and raised awareness about air pollution and car idling as part of 'Clean Air Day'.

As part of the focus topic, Global Dimensions, some year groups learnt about science-based topics in more detail. Year 1 continued to learn about plants and continued to grow plants in their outdoor learning area. Year 3 explored forest conservation with a focus on the Amazon Rainforest. Year 4 explored ocean conservation with a case study on the Great Barrier Reef.

In June, some Year 5 children had the opportunity to visit the new Climate Hub in Southend where they learnt about plastic pollution and biodiversity.



### Useful websites

- <http://www.primaryhomeworkhelp.co.uk/science/index.html>
- <https://www.theschoolrun.com/primary-science-glossary-for-parents>
- <http://www.madscience.org/>
- <https://www.stem.org.uk/>
- <https://explorify.wellcome.ac.uk/en/activities>

### Science Gallery

