

### 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.

### Termly Reflections

#### Autumn

We started the school year with lots of science-based topics as part of our recovery curriculum. Year 1 learnt about space. Year 2 learnt about water and growing plants. Year 3 learnt about animal lifecycles. Year 4 learnt about litter and recycling and wrote to the local council about what could be done to combat these problems. Year 5 learnt about the human body and enjoyed an experiment involving the digestive system and some tights. Year 6 learnt about flowers and different types of animals.

In the second part of the term, our science learning continued with Year 2 and 5 learning about different materials and Year 2 designing party hats. 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

In the Spring term, we celebrated Eco Week virtually. Each year group focused on a different topic and Mrs Powell encouraged children to complete tasks at home from making bug hotels, creating posters about climate change to litter picking.

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.

When the children returned to school, we celebrated International Women's Day by learning about some famous and inspirational female scientists. We also took part in the National Science Week in March where different year groups investigated and designed new ideas based upon their Edison topics. Year 1 investigated what caveman may have used for paint by trying out different materials such as soil. Year 2 explored the moon and its surface. Year 3 investigated forces by making paper helicopters and investigating their drag. Year 6 designed their own bug for the future.



## Summer

In the summer term, the school celebrated World Earth Day through learning about deforestation in Year 2, recycling in Reception and electronic waste in Year 6. Year 4 learnt about where their food came from and discussed fair trade.

Within our Edison curriculum, there were lots of opportunities for science across the school. Year 1 looked at the importance of water as part of their topic, 'Why is water so precious?' and Year 3 looked at the importance of bugs and biodiversity. Year 4 learnt about how the digestive system works through an experiment involving food and a plastic bag! Year 5 encouraged children to take notice of what we have in our local area such as animals, plants and trees and the importance of bees. Year 6 enjoyed creating their own science projects as the end point for their science revision unit, hosting a 'Science Fair'.



## 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 Darlington, 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.



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## 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

