

IMPACT REPORT TO MARYLAND PRIMARY SCHOOL GOVERNORS

SUBJECT: Science TERM: Autumn 2023

SUBJECT LEADER: H WATSON

KEY POINTS FROM SCHOOL DEVELOPMENT PLAN (SDP)

1. Ensure that science standards remain high
2. To ensure core skills in English, maths and Computing underpin all aspects of learning and provide necessary skills to become 'future ready'
3. Teachers are confident with assessment for learning strategies and understand what greater depth looks like in science.
4. To review the quality of conclusions and children's skills at evaluating experiments
5. To continue to embed equality and diversity into Science
6. To continue to develop the outdoor areas as a stimulating learning environment, further engaging pupils in their learning - particularly boys in writing.

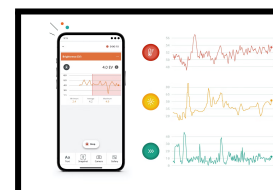
PROGRESS AND IMPACT TO DATE

1. Ensure that science standards remain high

- a. Standards remain high and learning outcomes are good, for example in September, children are already recording their results in graphs, writing predictions and conclusions.
- b. Topic previews and reviews are now being made by teachers so that they are tailor made to Maryland. The previews allow the children to consider their prior knowledge on a topic, while the review provides children the opportunity to consider all they have learned over that topic.
- c. We have been trialling a new scheme of learning from White Rose (who provide maths learning scheme) to help support teachers in planning for their lessons. It is intended as extra support and to provide ideas for teachers, in order to create the best science curriculum for Maryland.

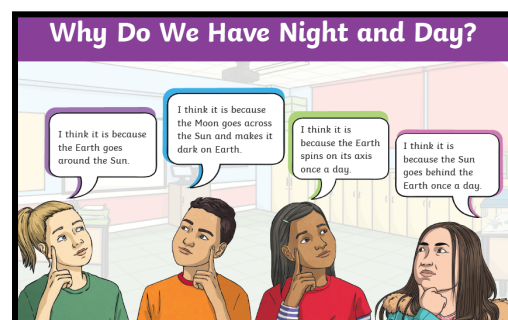
2. To ensure core skills in English, maths and Computing underpin all aspects of learning and provide necessary skills to become 'future ready'

- a. iPads are being used as data loggers for experiments across the school, giving children skills needed to use technology. Training has been provided for staff for the most effective use of our iPads in lessons.



3. Teachers are confident with assessment for learning strategies and understand what greater depth looks like in science.

- a. Teachers are providing questions in books to assess learning and ensure understanding is secure.
- b. Concept cartoons are used for extension tasks, which raises questions about the topic in a real life context. Children are able to discuss the questions raised and write answers to the questions, allowing them to consider their science topic from another perspective.
- c. We continue to use Learning By Questions to assess learning, set in class tasks. Feedback from teachers has stated that it is a useful way of evaluating the children's learning.
- d. Our trial of the White Rose Scheme has provided us with an alternative end of unit assessment resource, which we will be trialling in year 5.



4. To review the quality of conclusions and children's skills at evaluating experiments

- a. Every lesson includes a learning objective, which is a question that is answered throughout the lesson and specifically answered by the children in their written conclusion.
- b. Scientific vocabulary is provided and modelled by the teacher which children can use correctly in their writing.

5. To continue to embed equality and diversity into Science

- a. We continue to embed equality through all parts of the curriculum and in Science we ensure that at least one famous scientist is covered in every topic.
- b. For example Wangari Maathai, who was awarded the 2004 Nobel Peace Prize for her "contribution to sustainable development, democracy and peace," is covered for her contribution to sustainable development in our Year 4 topic of Living Things and Habitats.



6. To continue to develop the outdoor areas as a stimulating learning environment, further engaging pupils in their learning - particularly boys in writing.

- a. The eco-warriors, and adult eco-warriors, help to maintain the garden, ensuring it is an environment that all our students enjoy spending time in, and find stimulating.

Beyond the curriculum

- a. Many of our educational visits are science focused. Our Year 5 pupils have visited the Royal Observatory for a Planetarium show, while Year 4 visited the Science Museum to watch the 'It Takes Guts Show'.
- b. Years 3 and 4 had a fascinating introduction to their new topics thanks to the visit of the Science Dome. They were able to experience a vivid, 3D view of their new topics, inspiring questions that will be answered over the remainder of the topic.
- c. Aveea have provided a workshop for Year 6, providing some intriguing problems for children to solve, that directly relate to problems in the wider world.



Sustainability and Climate Change

Educating, and combating climate change, is a key part of our headteacher's vision for this year and we have taken many steps to make sure Maryland is always becoming more sustainable.

- a. Newham's Civic Awards Panel has awarded Maryland the Green Champion Award for 2023 in recognition of our initiatives on food waste reduction, recycling and other sustainability activities.
- b. The Mayor, Rokshana Fiaz, came to congratulate the Eco Warriors on their Green Champions Newham Civic Award. The Eco-Warriors were able to ask the mayor questions about recycling in Newham and also explain their role in making the school more sustainable. We have been invited to visit her office in February as a follow-up. Her campaign team came to film the event for the council website.



- c. Eco-Warrior's continue to keep Maryland as sustainable as possible, providing student-led assemblies on climate change and engaging in projects, such as reducing food waste.
- d. The Eco-Warriors monitor recycling in the school where we are a local hub for the recycling of crisp packets, pens and batteries.
- e. They have engaged in local biodiversity workshops with Bloom education and Cody Dock, researching the effect of urbanisation on local nature. These findings were then delivered to the school through assemblies organised by the Eco-Warriors.
- f. Our £2,500 polytunnel is in the process of being built. This will allow us to grow food all year round.
- g. All lighting in the school is in the process of being upgraded to LED, which allows us to save money and energy.
- h. We have been given a new heated compost bin by Newham, which will increase the speed at which we create compost from our food waste.
- i. As part of our White Rose trial, each year group has access to lesson plans that specifically cover sustainability issues, ensuring that sustainability is embedded into our curriculum.
- j. We are working with one of our parents, Ms Goldson, to create a Baobab-inspired Christmas Tree made entirely out of recycled materials. This tree will reach the ceiling of our school halls, and will be completely recyclable when finished.



LOOKING AHEAD

- a. We will continue to trial the White Rose scheme across more year groups, to see how effective it can be at supporting our teachers in their planning.
- b. Pupil conferencing and book looks will take place to see the effectiveness of the new scheme.
- c. Experiment planning, and evaluating, will continue to be monitored to ensure the highest quality of experiments continue at Maryland.