



making physics matter



How to...

primary science displays

Aim

Suggestions and ideas to help teachers showcase science with school science displays.

Introduction

Showcasing science with vibrant and prominent displays can really help to engage and inspire your pupils, bringing science to the forefront and encouraging children to talk about the subject at home and at school. Space can be at a premium but as well as classrooms try to utilise corridors, reception areas, maybe even an outside display?

Science displays can be based around topic/year group; they can feature working scientifically skills and enquiry types; or they can be a celebration of famous scientists and role models – ideally, they will be a combination of all of these elements across the school.

Working wall displays

A working wall is a useful display tool to support learning; it can showcase the topic and the learning outcomes including key words, language and images. A working wall may be supported by a science topic table where pupils can be more interactive and explorative with the items on show. Class work should be added to the wall as the topic progresses and the wall is likely to develop over the duration of a topic and change frequently.

This type of display is constantly evolving to illustrate the learning that has taken place and to support future learning; an effective working wall can be quite time consuming for the teacher. Incorporating the working wall into lessons by making changes and

additions in collaboration with the class will help to make maintenance manageable as well as encouraging children to use the working wall to support their learning.

An interactive working wall is effective at showing progression in learning by summarising the scientific knowledge and skills that have been developed as well as keeping a record of scientific questions to be addressed in the future. Model examples of children's work from each lesson can be displayed with key strengths highlighted and labelled to help model success for other children. A well maintained and carefully planned working wall can be an effective resource to support independent learning in the classroom.





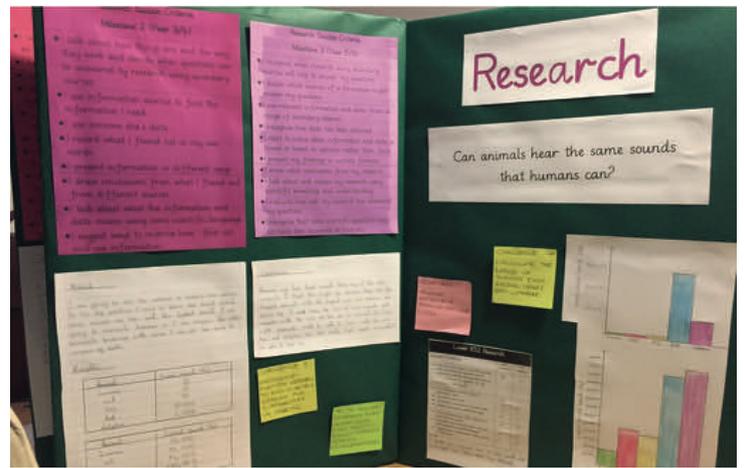
Vocabulary washing lines

Vocabulary washing lines can also be interactive with new words being introduced at appropriate points in the sequence of lessons and additional scientific terms added as they arise from pupil discussions and enquiries. A vocabulary washing line can also be a useful resource for starter and plenary activities that help children to focus on key vocabulary to share their ideas.

If you are short on space in your classroom science vocabulary could also be displayed on windows using chalk marker pens or each table could have its own vocabulary menu card for children to use while writing. Science vocabulary is a key focus within all science lessons and there is a core list of subject specific words for every topic in the science curriculum. There are many different ways that these key words can be displayed to encourage children to use them in their reporting and discussions as well as providing support with tricky or unfamiliar spellings. One method is to have a science vocabulary washing line across the classroom with vocabulary cards pegged to the line. Vocabulary cards can be illustrated to support understanding. The washing line can be put up for science lessons only, transforming the learning space for that session.

Thematic topic displays

When science topics have been linked with other curriculum areas over a half term, a thematic topic display can be an effective way to celebrate all the learning that has taken place. Displays can include art inspired by the theme and this can lead to some wonderful 3D creations to bring displays to life. Samples of cross curricular work on the theme can also be included along with photographs of interesting activities that children have participated in. Eye catching visual displays can be very effective at raising the profile of science across the school.

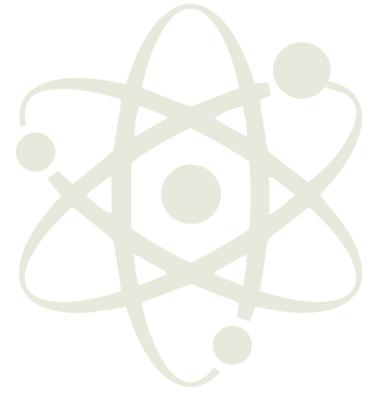
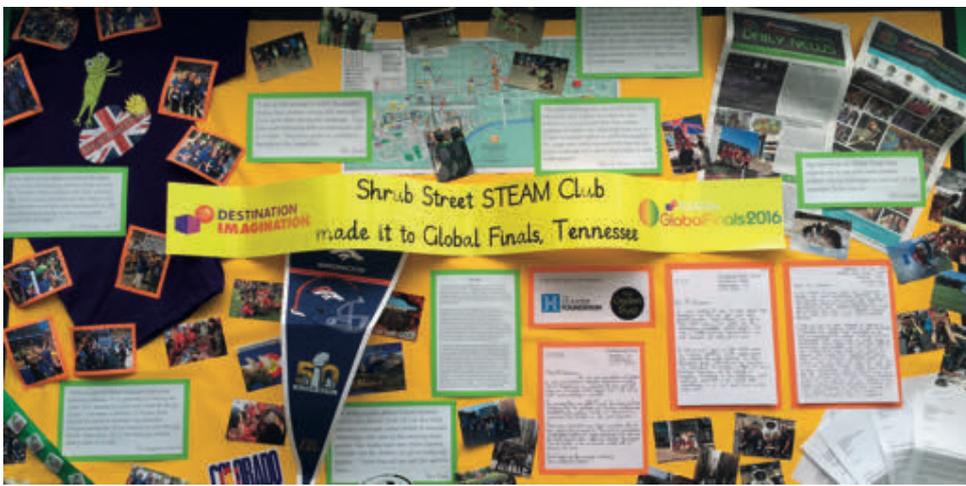


Working scientifically displays

As working scientifically skills are developed across the school year a science display that focuses on the skills of working like a scientist can be an exceptionally useful resource in the classroom that doesn't need as much maintenance as a topic-based working wall. This type of display would be ideal for focusing on the different types of enquiry and would be an appropriate place to have a 'Curiosity Corner' – an interactive section of the display where children can share their own questions for future scientific enquiries they would like to carry out.

Working scientifically displays can include a clear list of all the relevant age appropriate targets for working scientifically skills, useful vocabulary for reporting plans, drawing conclusions and evaluating enquiries, and exemplified examples of enquiry work to serve as models for children's own work. Lists of success criteria for scientific diagrams, tables, graphs and charts would also be a useful resource to keep on display through the year to support children in reporting their enquiries successfully.





Celebrating extra-curricular science

Corridor displays are ideal places to share and celebrate the successes of extra-curricular science clubs, trips and residential visits. This kind of display can encourage more members of the school community to get involved in optional extra-curricular activities as well as ensuring that the whole school knows what wonderful opportunities there are for children at the school. Extra-curricular activity displays are very effective at raising the profile of science across the school.

Science 'Wall of Fame'

Does your school or class already have a scientist of the week award? Why not create a Science Wall of Fame display with photographs of all the winners across the year holding their certificates. If space allows, you could even include samples of each of the winner's science work on the display to share their success with their peers. Photographs could be made more interesting with some science props – do you have an astronaut suit, an explorer's hat, a magnifying glass, measuring equipment or a lab coat and goggles perhaps?

Real-world science

To help bring learning to life and raise science capital across your learning community it is really useful to include examples of science in the real world in your displays. This can be photographs with captions showing children where their learning links to the world around them, interesting news stories from around the world and case studies of people who work in a wide range of relevant science careers. A useful resource for primary teachers looking for examples of STEM careers that link to the topics they are teaching is the **NUSTEM Primary Careers tool**.

Why not have a whole school display for National Science Week, the Great Science Share or World Space Week?

Don't forget

If you don't have much space for wall displays, you can also showcase science teaching and learning in class floor books. These are really valuable for assessment and moderation, but also to share with visitors and parents. Floor books can include photographs, children's comments, drawings, tables, graphs, annotated diagrams, classification keys and writing, which all help to show progress in understanding and working scientifically skills.

Why not have a science section in your library? You can feature fiction books that have a science link or books on science topics and scientists. Can you have a science display table in your library too?



We have a science corridor featuring an interactive periodic table which includes research from Years 5 and 6; a solar system model hangs from the ceiling along its length. Pictures celebrate inspirational scientists from across the world and others closer to home; and the work of the pupils is proudly displayed at every opportunity. The corridor features homework creations and a fortnightly investigation – Ogden planetary picnic for the launch event!

Matt Crook, Lunt's Heath Primary School, Ogden Halton Partnership



Top tips

- Keep the displays fresh and updated to capture attention.
- Include children's work in the displays to motivate, praise and encourage them.
- Include a diverse array of careers and role models to really inspire the children.
- Appoint some pupil science ambassadors – part of their responsibilities can be the maintenance and preparation of science displays.
- Add post-it notes to displays capturing children's comments and questions.
- Add write-on mini whiteboards to displays to encourage children to interact with them.
- Use photographs to help illustrate the working scientifically skills that children have been developing.
- Look at creative ways to make the most of your display space – use windows, washing lines, hanging mobiles and mini tabletop displays to bring science to life.
- Exploration tables make a wonderful interactive science display in classrooms with objects that children can handle and explore, relevant books and artefacts to encourage curiosity.

Display resources

There are lots of **FREE** display resources and posters you can download. You will find links to many of them alongside this resource on our website.

www.ogdentrust.com/resources/how-to-science-display



Credit: Joana Neves



Credit: Mae C. Jemison

- Free posters celebrating women role models in science, technology, and maths.
- Free posters that focus on different types of measurements used in primary science are available to download or order from the National Physical Laboratory.
- Identification guides and surveys are available from OPAL to support identifying and classifying enquiries at all ages.
- The STFC has a wide range of eye catching and informative posters on Space and astronomy that can be downloaded or ordered from the website.
- The IET has a collection of free posters that can be ordered or downloaded from the website.
- Practical Action has a wonderful collection of STEM posters that are connected to their innovative enquiries inspired by global issues.
- The British Geological Survey has a stunning poster that is free to download and explains how rocks can tell us about how the Earth's climate has changed throughout time.
- Scientific method mini posters available to download from Scholastic.
- Not all chemists wear lab coats posters from the RSC.
- Perimeter Institute forces of nature posters.
- NASA solar system posters.