

# SPECIAL EDITION GORDONBROCK WEEKLY

**Friday 17th March 2023**



## Dear Parents/Carers and Children,

At Gordonbrock, the children are encouraged to continually wonder about the world and engage with Science practically as often as possible. British Science Week gave us the perfect opportunity to do that on a larger scale!

We have explored this year's theme 'Connections' in a variety of ways. We are proud to share, and showcase all the exciting things we have done in this special  edition weekly. It's a fabulous read!

Also, please remember we have our Science exhibition coming up. Science inspired artwork from children in Years 3, 4, 5 and more photos of the Science Fair will be presented in the main hall from 3.20pm - 4pm on Friday 24 March. Come along, we would love to see you there.

Hopefully the sun will continue to shine into the weekend. See you all on Monday!

*Mrs Wright*

## Science Week Assemblies

We started Science Week with assemblies for KS1 and KS2, we focussed on what it means to be a scientist. After considering the different jobs that a scientist can have and dismantling the stereotype of what a scientist looks like, we discussed the thing that all scientists have in common: they WONDER! This means being able to ask questions about the world around us and wanting to find out the answers. This is what it means to be a scientist at Gordonbrock!

Children in KS2 then listened to what 'awe and wonder' means to real life scientists working in the field today, while KS1 listened to the story of Ada Twist: Scientist. We also discussed the theme of this year's Science Week: connections. We discovered that this can cover a whole variety of topics, from inventions such as the internet, which keeps us connected to others, to our own bodies. What does 'connections' mean to you?



# Science Fair

Hosted By Year 6

On Friday 10th March, Year 6 hosted an amazing Science Fair for children in Key Stage 1 and Early Years.

The children ran different experiments and investigations and connected with the younger children by explaining some of the Science behind the processes and supporting them to complete the activities.



The activities included testing different fruit and vegetables to see which floated, making circuits using lemons and potatoes (some worked better than others!), matching dinosaur names to images, using different shaped pipe cleaners to see if we could make bubbles in different shapes and noticing the changes between a cornflour and water mixture when we moved it quickly compared to when we moved it slowly. This one was very popular but very messy too! We are also very grateful to Prendergast School for lending us "Fred" the human skeleton and a plasma globe which proved to be a huge hit with the children!

I liked moving the things in the bottles up and down.  
Eloise (Reception)

I like showing the younger children what to do. It's cool the way it's surprising them.  
Lucia (Year 6)



The magnets were so strong. They went right through the containers!  
Oliver (Y1)

The plasma globe lights up when you touch it!  
Jacob (Y1)

I like explaining to younger children about dinosaurs.  
Joe (Year 6)

I liked blowing big bubbles!  
Mia (Y2)



# Science Fair

Hosted by Year 6

I liked the plasma globe because I like electricity.  
Ellis (Y2)

I liked the bubbles!  
Pavitra (Y2)



It was difficult to do a square bubble.  
Lola (Y2)



I liked sorting out the names of the dinosaurs.  
Dylan (Nursery)



I liked attaching things.  
Imogen (Nursery)  
(talking about circuits activity)



My favourite was the cornflour because it's messy!  
Zoe (Reception)



It was so great! So fun!  
Farrukh (Y1)



I loved it when the dinosaurs went to the floor.  
Dahiana (Y1) (talking about parachutes activity)

## Year 1 Science Investigation

We discussed what absorbent meant and which types of materials might be absorbent. We decided that things like glass would not be but cloth might. We thought about asking a question, carrying out a fair test and finding an answer to the question.

We had 6 materials and predicted which one would be most absorbent. We soaked up water with each material and left each for 1 minute then measured how far the water had gone up and also squeezed to see if any water came out.

What material could we use to soak up the water?



## Year 3 Science: Rocks

In Year 3, we have been making connections in our Science topic for this half term: Rocks. We made observations of different rocks and determined whether they were metamorphic, sedimentary or igneous rocks. We also began exploring and classifying different properties of different rocks, including permeability, density and durability. We were then able to make connections between different types of rocks which had the same properties.



# SCIENCE & ART

Science and Art are traditionally seen as completely different subject areas but they are more connected than many people think. At their core, art and science are both about observation and interpretation. Art and science are both human attempts to comprehend and then explain the world around us. When done successfully and in tandem, they can cause us to see the world in a different light.



During this British Science week children in Years 3, 4 and 5 have been making connections between Art and Science and creating pieces of artwork in their own classes. Each class have been working with a different theme:

- E1 - have been making cave paintings using flour paste Batik;
- E2 - have been designing lava lamps;
- E3 - have been drawing fossils using wax resist techniques with oil pastels and watercolours;
- E4 - have been growing crystals and creating images of them;
- E5 - have been recording their voices online and then drawing the soundwaves they created;
- E6 - have been creating 3D models of the water cycle;
- A1 - have been designing their own planet and creating creatures that live there;
- A2 - have been creating portraits of themselves as babies and as children linked to topic on life cycles; and
- A3 - have been working on an antiscience project - art based on theories Science has disproved



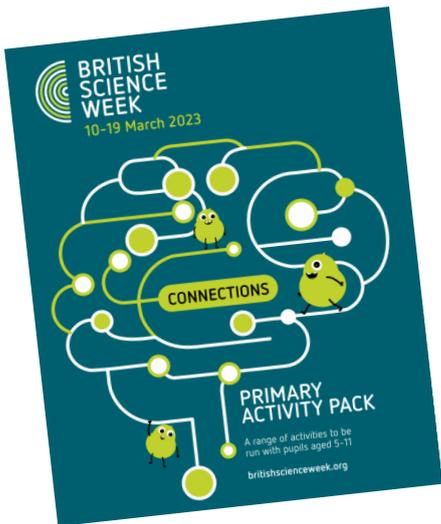
*Each project has had several steps and we look forward to sharing the final results with you at the exhibition.*

**Friday 24 March @3.20pm in the main hall.**

## HAVE A GO AT HOME

The organisers of British Science Week have compiled a free pack of a wide range of fun, hands-on Science activities. Why not try having try one of them at home.

Link: <https://www.britishsienceweek.org/app/uploads/2023/01/Primary-Activity-Pack-2023-British-Science-Week.pdf>



*If you try one of the activities please send us a picture so that we can publish it in the weekly next week.*

**BRITISH SCIENCE WEEK 2023**

### SUSTAINABLE SOAP

In this activity you will compare solid and liquid soaps. You will think about whether they are both as effective at washing hands, and whether one is more environmentally friendly.

15-20 hours, plus a week of observation  
 (with resources: Glycerin, Potash)

**Kit list**

- 1. Fresh white bread
- 2. Clear new liquid soap
- 3. Dish
- 4. Liquid hand wash
- 5. Access to hand washing facilities

**Instructions**

1. Get into a group of 3.
2. One person will wash their hands with the liquid soap, one person will use the bar of soap, and one person will not wash their hands.
3. Each group member should pick up and handle a piece of bread.
4. Next, seal your piece of bread in a clear plastic bag. Label your bag to show which type of soap was used.
5. Put the sealed bags of bread somewhere warm and dark. Make sure that they don't get too hot, or they will dry out.
6. Look at the bread through the bag every few days and record what happens. After a while you should see mould start to grow.
7. Do you notice any differences between the amount of mould growing on the bread? How does this tell you about the importance of handwashing? What does it tell you about how well different types of soap work?

**Next steps**

This activity is taken from CEC's 'Sustainable Soaps and Solutions for our Planet' resource pack and solutions for our planet' resource pack. You can find more information on the investigation in our 'Investigate for adding soap and C. list for handwashing the initial download link of this publication, which can be downloaded free of charge at [c.ec.org.uk/sustainability.html](https://c.ec.org.uk/sustainability.html).

**At home**

Have you ever thought about how much more carbon there is in a bottle of hand wash compared to a bar of soap?

What other liquid products do you have at home? How many of them do you think would work in a solid formulation?

**Career options**

Companies like [innospec.com](https://www.innospec.com) are helping us to live more sustainably by developing a wider range of solid products, such as shampoo.

**BRITISH SCIENCE WEEK**

### UNBOXED - DRAW A SCIENTIST

Getting up you will learn and develop lots of new skills. While some jobs, like a doctor and a scientist, are very different to each other, you will find that many skills needed are the same. In this activity you will explore the skills and creativity in STEM.

30-45 minutes  
 Skills needed: Open-minded, Collaborative

**Kit list**

- 1. Plain A3 paper or a couple of sheets of A4
- 2. Colours
- 3. Crayons (one red paper)
- 4. Coloured paper

**Instructions**

1. Look at the job profiles of the different scientists involved in UNBOXED (see next page).
2. In the middle of your paper, draw a scientist. Be as creative as you want. Remember all scientists look different and do different jobs.
3. Next, think about what skills your scientist needs to do their job. Write these around your drawing. To be think of as many as possible.
4. Now think about an artist. What skills do they need? Put a tick by the skills you think an artist also has.
5. Did you list 'creativity'? Both scientists and artists need to think creatively. Discuss who that may be.
6. In a different coloured pen/pencil, put another tick by the skills that you have either tick by the skills that you have in a group, you could all share your pictures and discuss the similarities between the skills you all listed?
7. If you are doing this activity at school or in a group, you could all share your pictures and discuss the similarities between the skills you all listed?

**Next steps**

This activity is part of the UNBOXED Creative CEC Discovery Project. View the full resource here: <https://www.britishsienceweek.org/primary-activities/creativity-ideas.aspx>

**At home**

Discuss at home what skills your parents, carers or other people you know have. Do they have to be creative in their jobs? Do they have to work with people with different jobs?

**Career options**

UNBOXED: Creativity in the UK saw STEM and arts professionals working together to create 10 exciting projects across the UK. This included a magical forest garden sculpture at a 500m site in the west. Skills learnt in these STEM subjects can be applied to many different jobs.

# Year 2 Science: Habitats

Year 2 made posters, using a range of resources, for the poster competition. The posters were based on the trip that they did recently to Ladywell Fields where they investigated different animal habitats. They thought about the connections between the habitats too.

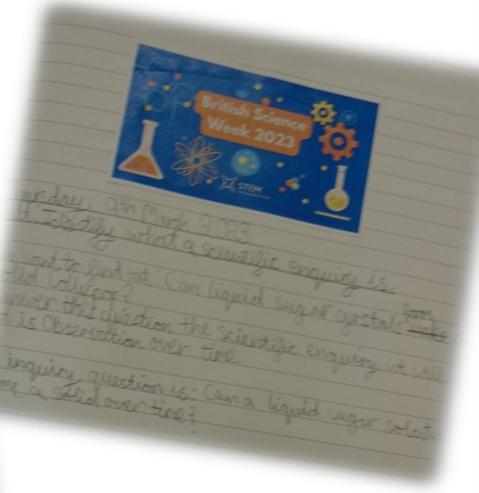


# Year 4: Working Scientifically

In Year 4, we have been thinking about different ways of working scientifically. We have been thinking of inquiry questions and using them to create our artwork. We have used lots of different mediums and look forward to sharing them with you soon!



Working Scientifically Skills	Definition
Asking Questions	Asking questions that can be investigated scientifically
Making Predictions	Using knowledge to suggest what the result of an investigation is.
Setting Up Tests	Considering with the teacher how to set up the investigation to test the hypothesis.
Observing and Measuring	Using appropriate tools and equipment to make and record observations about the investigation.
Recording Data	Using tables, diagrams, and other resources to help observations and measurements.
Interpreting & Communicating Results	Using information from the data to say what you found out.
Evaluating	Reflecting on the success of the approach and identifying further questions for investigation.



Observation Over Time	Pattern Seeking	Identifying, Sorting and Classifying	Comparative and Fair Testing	Research using Secondary Sources.
How do the heights change over the year?	Is there a relationship between average sea and gaitation period? Are high calorie foods always high in sugar?	How can we group the food at eat? Which shoe is most slippery?	Is there a relationship between amount of sleep and gaitation period? Does the temperature of water affect yeast growth? Are high calorie foods always high in sugar?	How do a lightbulb work?





What do you imagine when you're asked what a scientist looks like? Are you picturing lab coats, goggles, and conical flasks? How about the person? Are they a White man with grey hair, who resembles Albert Einstein? If that's who you pictured – you aren't alone.

While there are well-documented challenges with diversity in science, technology, engineering, and maths (STEM), the people and roles that make up this varied sector are more diverse than the all-too-well-known societal stereotype of lab coats, goggles, and conical flask might suggest.

The organisers of British Science week are proud to present 'Smashing Stereotypes' is a collection of over 40 stories from individuals and teams that challenge long-standing stereotypes, with the aim of encouraging more young people, from all backgrounds, to see themselves as scientists.



Connecting the worlds of science and art



From fighting fires to fighting climate change



Without women computing as we know it would not exist



Protecting pets against disease



Where economics meets healthcare



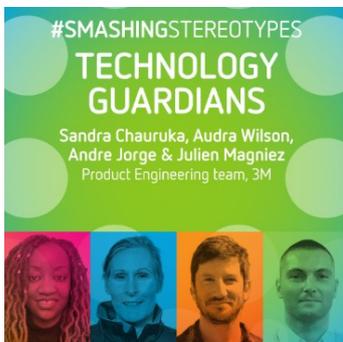
Creating the future of fitness



Turning a passion for video gaming into a career



Inspiring a new generation of curious minds



Pandemic response team plays to its strengths



Engineer turned chef



Pioneering carbon-free power



Encouraging more women into STEM, one badge at a time

For more information and to read the profiles visit:

<https://www.britishtscienceweek.org/smashing-stereotypes-the-profiles/>



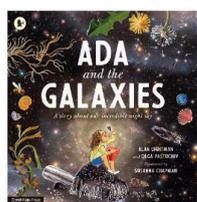
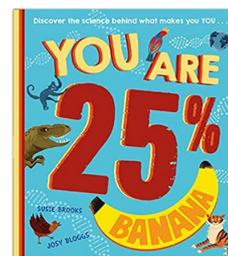
## MRS WRIGHT'S READS FOR



### You Are 25% Banana written by Susie Brooks and illustrated by Josy Bloogs

This stunningly illustrated book will boggle your brain with astonishing facts, as it shows how we're all related to every living thing on the planet. Did you know that a grain of rice has more genes than you? Or that you're related to dogs, dung beetles and even daffodils? Luckily, even though you're 99.9% like a chimpanzee, you're still 100% YOU!

Age  
5-7



### Ada and the Galaxies written by Alan Lightman & Olga Pastuchiv and illustrated by Susanna Chapman

Age  
3-5

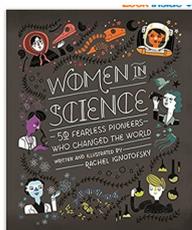
Ada loves watching the stars. It's hard to see them well from her home in New York City where there are always so many lights on – even at night. So she can't wait to visit her grandparents in their quiet home by the sea.

Here the nights get properly dark so that the stars shine really brightly. Ada is impatient for night to fall. To entertain her until it does, her grandfather introduces her to all the things of interest on the sea shore as well as telling her all about how the stars are made. He explains the gigantic scale of the galaxies and the incredible and impossible amount of time it would take her to actually reach the stars...

### Jakeman's Marvellous Mechanimals and the Space Pirates written and illustrated by Nick Ward

Young readers discover how Darwin changed our understanding of the human race - and our place within the animal kingdom - with his ground-breaking work, On the Origin of Species. Divided into short yet comprehensive chapters, children will be able to learn about one of the most significant theories of mankind and discern the ideas - as well as their consequences - of one of the most influential scientists in the world.

Age  
7-9



### Women in Science: 50 Fearless Pioneers Who Changed the World written by Rachel Ignotofsky

The extraordinary women profiled include well-known figures like the physicist and chemist Marie Curie, as well as lesser-known pioneers such as Katherine Johnson, the African-American mathematician who calculated the trajectory of the Apollo 11 mission to the moon.

Women in Science celebrates the achievements of the intrepid women who have paved the way for the next generation of female engineers, biologists, mathematicians, doctors, astronauts, physicists and beyond ...

Age  
9-11

### Black Women in Science written by Kimberly Brown Pellum

Black Women in Science stands out amongst other Black history books for kids—featuring 15 powerful stories of fearless female scientists that advanced their STEM fields and fought to build a legacy. Through the triumphs of these amazing women, you'll find remarkable role models.

Age  
9-12



### Perfectly Weird, Perfectly You written by Camilla Pang

As a child Camilla loved patterns and putting things in order. She was obsessed with Stephen Hawking. And the only language she really understood was science. Diagnosed with autism age 8, Camilla saw the world very differently.

But with science as her sidekick, she was able to translate ideas she could understand (like gravity, photosynthesis and algorithms) onto things she couldn't (like peer pressure, emotions and finding your voice).

Age  
9-11

