



# STEM HUB NEWSLETTER

A STUDENT NEWSLETTER AT DRAYTON MANOR HIGH SCHOOL

Spring Term Edition

[draytonmanor.wixsite.com/stem](http://draytonmanor.wixsite.com/stem)

## WELCOME TO THE STEM HUB NEWSLETTER

Hello, and welcome to the fifth Drayton Manor High School STEM Newsletter. This newsletter will focus on STEM (Science, Technology, Engineering and Maths) news and activities that have taken place this term. Opportunities, upcoming competitions, as well as a STEM Hub leaderboard summary will also feature in this issue.

Our primary aim at the STEM Hub is to encourage countless students to develop an interest in Science, Technology, Engineering and Mathematics. To boost STEM involvement, our team is running quizzes and competitions for you to engage with.

To find out more, please visit the STEM Hub website:

<https://draytonmanor.wixsite.com/stem>

### British Science Week Events

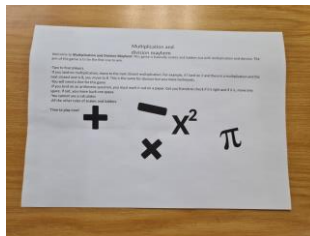
Over this term, the STEM Hub have organised and coordinated a multitude of activities and competitions. We were thrilled to see a great many students take part.

Thank you to everyone who signed up to our British Science Week event on the theme of connections. During the week beginning 13 March, over 50 students in KS3 and KS4 engaged in experiments involving static electricity, motors, and much more. We hope those who joined us enjoyed the event!

### STEM Hub KS3 Competition

Our Spring Term KS3 competition put students' innovation skills to the test in a task to create a puzzling mathematical game.

Very well done to **Oishikha (7I)**, the competition winner for creating a meticulous and fun board game. We would also like to congratulate **Justin (7L)** for achieving 2nd Place.



### STEM Hub KS4 Competition

In February, the STEM Hub ran a mathematical 'Zero Percent Quiz' with students in KS4.

Congratulations to our winners below, each of whom has been awarded a small prize for their efforts!

- 1st Place:** Alexander (11L)
- 2nd Place:** Dinukshi (11F)
- 3rd Place:** Maja (11F)

### STEM Hub Poster Competition

In collaboration with the science faculty, the STEM Hub ran a third competition challenging students across the school to design a compelling health and safety poster.

- 1st Place:** Ifra (8F)
- 2nd Place:** Munira (8F)
- 3rd Place:** Sewah (7K)

We were particularly impressed by the work of **Ifra (8F)**, photographed below.



### STEM Hub Points

TOP YEAR GROUP:  
Year 8: (243 Points)

TOP TUTOR GROUP:  
8F: (136 Points)

### STEM Hub Houses Leaderboard

1st: **Caladrius** (330)



2nd: **Pegasus** (274)



3rd: **Griffin** (194)



4th: **Phoenix** (157)



<https://draytonmanor.wixsite.com/stem/leaderboard>





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## STEM Faraday Challenge

On Wednesday 25th January, six Year 8 students took part in the Faraday STEM Challenge. This is run annually by one of the world's leading STEM professional societies: the IET (Institute of Engineering and Technology).

Students were given the chance to construct an eco-friendly design that could be used in a Vertiport, an area of land, water, or structure used for the landing and take-off of VTOL (Vertical Take-off and Landing) aircraft.

With the use of a LED, buzzer and pressure pad, students created a safety tower to alert when a drone landed on the Vertiport. This opportunity not only encouraged cooperation and creativity, but also allowed students to explore their capabilities as an engineer.

## Centre of the Cell

On the 6th and 9th of February, Year 12 students visited 'Centre of the Cell' at Queen Mary, University of London. 'Centre of the Cell' is the first science education centre in the world to be located within working biomedical research laboratories. At the event, students engaged with several Science related career activities, and even had the opportunity to speak to a microbiologist. This experience proved to be valuable for students in giving them an insight into STEM-related careers.

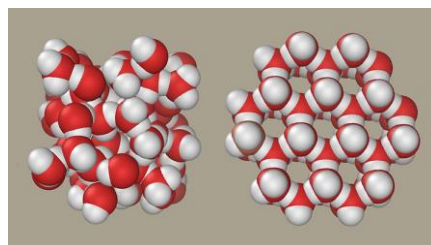
## STEM News

This term, a multitude of STEM news articles have been published on our webpage, including one delving into the fascinating qualities of water, and another into the future of AI. The full articles can be accessed on the blog section of the STEM hub website:

<https://draytonmanor.wixsite.com/stem/blog>

### Water

Water is one of the most common and vital substances on our planet, it being the fundamental solvent needed for life to exist as we know it. It is required for all kinds of processes in living beings. However, water did not even originate from our own planet. Theories about where water originated are still currently being investigated. One of the most interesting things to note, however, is that water behaves unlike any other substance we know of. For example, water is the only known substance to expand when freezing. The arrangement of these molecules is the reason for floating ice. This plays a huge role in the biochemistry of our planet, as large bodies of water would freeze over if ice did not float to the surface. Without this aquatic life would have been frozen through a long time ago.



## Opportunities

Skills & Insight: Focus on Communicating Science:

In this STEM session, a leading academic from University of East Anglia will run an interactive skills and insight workshop for students on Communicating Science – Developing Confidence and Credibility in Your Written Work.

The session will develop skills and approaches to support students in their STEM studies and future aspirations. This opportunity is recommended for key stage 5 students.

We hope you have enjoyed the STEM Hub Newsletter. Thank you very much to our STEM Hub team:

**Neil 13.1** – STEM Hub Manager

**Nadia 12.8** – Newsletter Author

**Miski 12.7** – Quiz Author

**Rahma 12.7** – Quiz Author

**Tiyonne 13.8** – Competitions Coordinator

**Abdiqani 13.8** – Competitions Coordinator

**Zahra 13.6** – Blog Author

**Musa 12.6** – Blog Author

**Ahmed 12.5** – Website Manager and Opportunities Coordinator

**Ravleen 12.5** – Opportunities Coordinator