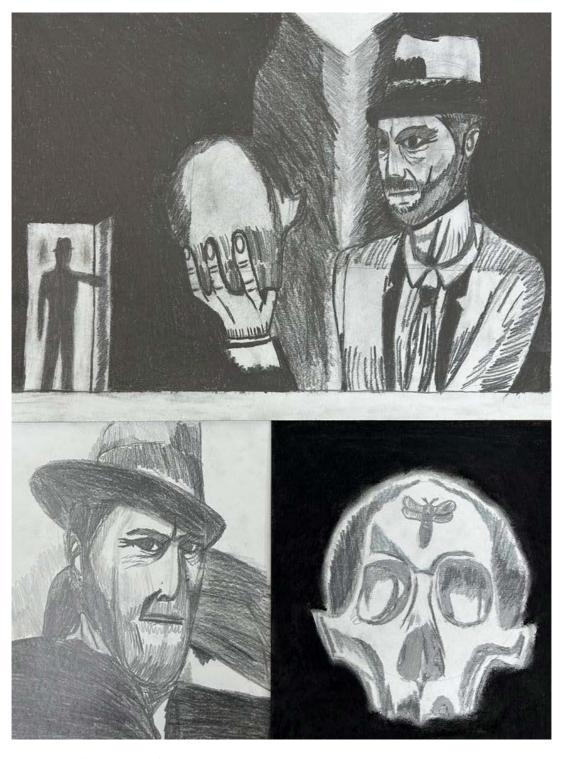


ART

Yet again, students have produced some remarkable images in their art classes. Here is a selection from different groups from years 9 - 12.

Miss Mrdalj, our Art teacher, supports their talents to get the best out of them and encourages students to follow their own ideas.



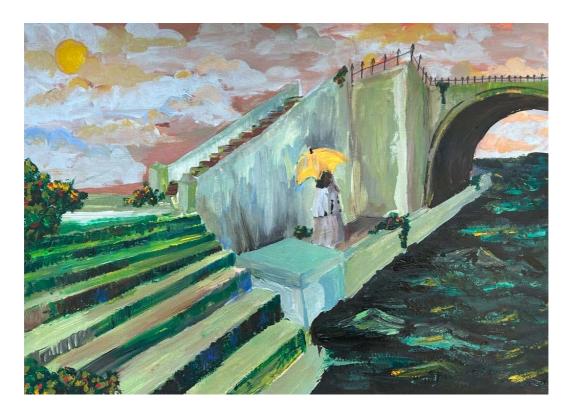
Matteo Shin, Year 9



Olivia McAllister, Year 10



Rea Kuci, Year II



Alya Nasheed Year I I



Shengrui Xi, Year II



(Above) Hani Dinh, Year 12, (below) Bao Linh Tran, Year 12





Tamara Batshon, Year 10



Works in progress...

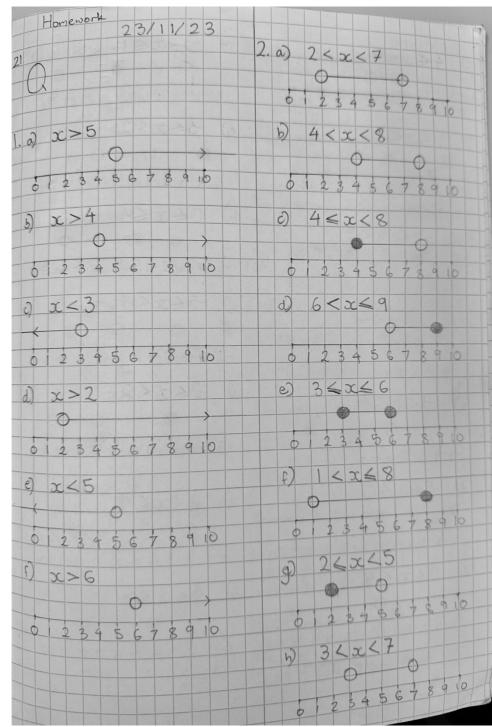
MATHEMATICS

Students find maths challenging, but they know how important it is.

Mr Marashi, our mathematics teacher, insists on neat presentation and clear working, both of which contribute to the excellent results his students achieve at GCSE and A level.

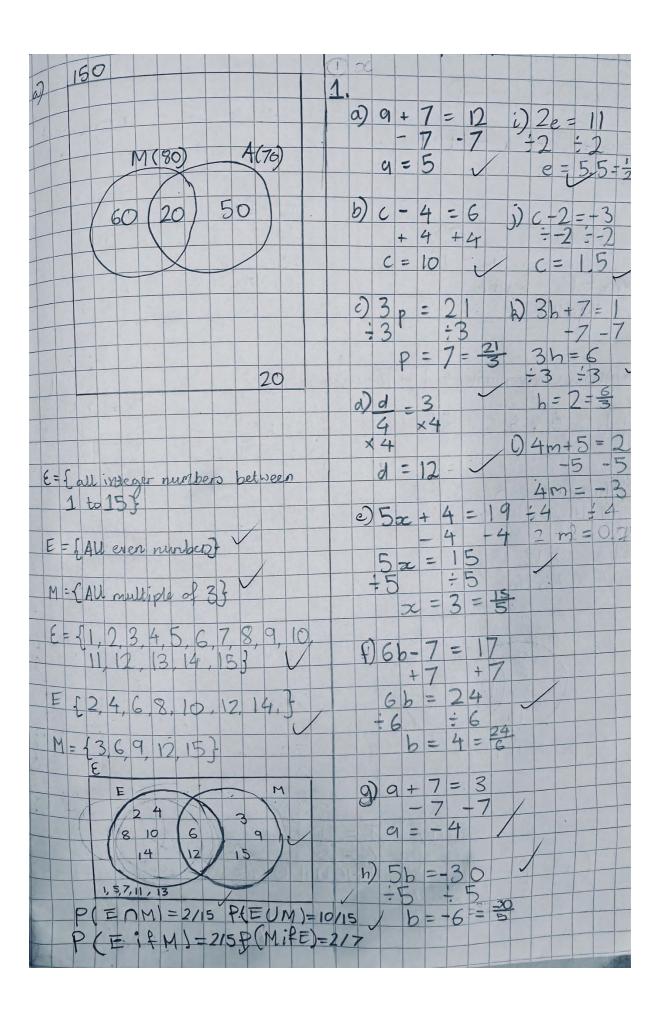
It starts easily enough in Year 7 (though not for all!) and becomes rather more complex in Years 12 and 13.

Below are example pages which illustrate the need for accuracy and clear thought.



Year 7 Homework

(right and below)



9|
$$A = (\frac{1}{6})$$

a) $A^2 = (\frac{1}{6})(\frac{1}{1}) = (\frac{1}{6})$

b) $A^3 = (\frac{1}{1})(\frac{1}{1}) = (\frac{1}{6})$

c) $A^2 = (\frac{1}{6})(\frac{1}{6}) = (\frac{1}{6})$

b) $A^2 = 3A$

(a) $A^2 = (\frac{1}{6})(\frac{1}{6}) = (\frac{1}{6})(\frac{1}{6})$

a) $A^2 = 3A$

(a) $A^2 = 3A$

(b) $A^2 = 3A$

(c) $A^2 = 3A$

(d) $A^2 = 3A$

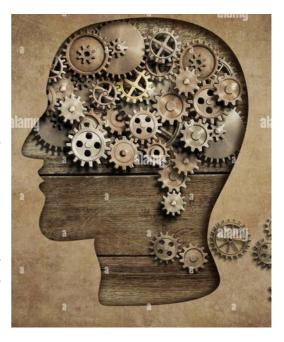
(e) $A^2 = (\frac{1}{6})(\frac{1}{$

Year 12, Equations Homework – Erin Kuci

PSYCHOLOGY

Psychology appears as a new and interesting subject for students considering A level choices. However, after the initial novelty the hard work sets in with detailed essays and answers on a range of challenging topics, including memory, schizophrenia and many others.

Our psychology teacher, Mr Childs, tries to make it all clear and obvious – which does not mean he does the work for the students! Daniel Ehsan's work below is an example of a Year 13 student's answer on the topic of schizophrenia – an exam question.



Task:

Describe and evaluate the biological explanations for Schizophrenia (16 marks)

One biological explanation for Schizophrenia is that it is passed on through the genes. Gottesman et al. (1991) reported that while the rate of Schizophrenia in the general population is 1%, if one parent has Schizophrenia, there is a 13% chance that their child will develop it. He found the chances if both parents had Schizophrenia was 48%. He concluded the closer you are genetically, the more likely you are to get Schizophrenia. Ripke et al (2014) found 108 separate genetic variations were associated with increased risk of Schizophrenia.

Evidence to support the genetic explanation comes from Gottesman and Shields, who found a concordance rate of 42% for monozygotic twins and 9% for dizygotic twins. MZ twins share 100% of their genes, compared to DZ twins who only share 50% of their genes, so this suggests that genes must have some influence on the development of Schizophrenia. However, the concordance rate for MZ twins is not 100% which suggests that other factors must also be involved. It's also important to note that 2/3 of people with Schizophrenia have no relative with a similar diagnosis and therefore have nobody to inherit it from. A potential explanation for this may be a mutation in the parental DNA.

The dopamine hypothesis is another biological explanation for Schizophrenia. The original version suggested it was due to high levels of activity of dopamine in the subcortex (hyperdopaminergia). For example, an excess of dopamine in the Broca's area might be responsible for poverty of speech and auditory hallucinations. More recent versions of the theory have included hypodopaminergia, where low levels of dopamine in the pre-frontal cortex are believed to be responsible for some of the negative symptoms of Schizophrenia such as avolition. The frontal cortex is strongly correlated

with higher order thinking, and therefore low levels of dopamine (associated with reward) may cause lower motivation to complete the tasks healthy functioning humans take for granted such as brushing our teeth.

Research from autopsies has shown Schizophrenia sufferers have more dopamine receptors leading to neural firing therefore supporting the dopamine hypothesis. Further support comes from dopamine agonists e.g. Amphetamines, which can produce Schizophrenic like symptoms in non-sufferers. Conversely, anti-psychotic drugs affect other neurotransmitters like serotonin and the antipsychotics work by binding to dopamine receptors and reducing symptoms. Therefore, it can be argued several neurotransmitters may be included in the development of Schizophrenia, meaning the dopamine hypothesis is too simplistic.

Biological explanations can also be criticised for being too biologically reductionist. By oversimplifying Schizophrenia in terms of genes and neurotransmitters the social context won't be considered. To explain Schizophrenia, it would be better to use an interactionist approach e.g. Diathesis stress model. This suggests biological factors predispose someone to Schizophrenia, but it has to be triggered by an experience. Evidence to support this comes from the adoption study by Tienari et Al. Although the study showed children with biological parents were at a greater risk even if they'd been adopted into families with no history of Schizophrenia, all cases occurred in families rated as disturbed. When families were rated as healthy the likelihood of developing Schizophrenia with a biological mother fell to below 1%. However biological factors must have had a role to play as none of the adoptees with no family history of Schizophrenia from disturbed families went on to develop Schizophrenia.

In conclusion, it is clear from research and brain scans that a person's biology (their nature) plays a significant role in schizophrenia. Despite this, these explanations do not create a complete picture, as alternative research has suggested a person's environment (their nurture) is also significant. Evidence of treatments stemming from both areas (anti-psychotics and CBT) suggest that an interactionist approach may best explain the development of schizophrenic symptoms.

ENGLISH LITERATURE

English Literature is a subject that everyone feels they know about: 'which books did you do at school' is a question often asked and when the answer is 'Macbeth' or 'An Inspector Calls', the response is often 'Oh, I did that too.'

It's a shared experience, but that does not mean that it is an easy subject.

In fact, it requires an ability to analyse not just ideas, but the language of the writer as well.

Below are two examples of excellent work by student in Years 11, and 12 – GCSE and A level. Firstly Al-Amin tackles the theme of power in An Inspector Calls while Temi Oludare tackles the contextual material in the study of Hard Times. Al Amin's work was completed under exam conditions in the Mock exams, while Temi spent 4 hours shaping her answer in a homework task.

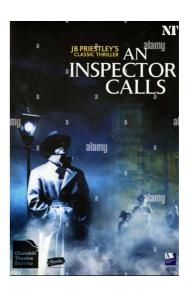
Al-Amin Hassan

Y11

Question: Explore the theme of power in 'An Inspector Calls'.

Class, societal status and wealth are just a few of the factors that affect and define power. In 'An Inspector Calls,' these are the main differentiators between Eva Smith and the Birling family. To this day it can clearly be observed that, all over the world, class inequality remains a major problem. Even still, huge improvements have been made in the past to reach this stage, improvements that weren't present in the early 20th century, which the play is set in.

A terrible chain of events leads to the suicide of a young, lower-class lady. Each member of the Birling family, as well as Gerald Croft, has a part to play in this. Each of them far more fortunate than her, each of



them in a far better position than her, each exercising their power over her. The first, Mr Birling, is a wealthy factory owner, formerly the mayor of their town, and a man awaiting a possible knighthood. When he hears of the girl's death, his only concern is his reputation and his power. His role was firing Eva after she and a group of workers at the factory went on strike for better pay. After he and the Inspector discuss his relations with her, he still doesn't see the impact he had, - 'I still don't see where I come into this suicide business.'

In the capitalist society we live in and have lived in for decades, the actions of those at the top, the most wealthy, affect everyone underneath them. They control the price of goods, the cost of living, and employment and wages. At the end of the day increasing their own capital and therefore their own power is their goal, so they increase the cost of living, decrease the wages they pay, ruin the lives of anyone that opposes this status quo. Eva Smith dared to do so and by the power that had been Mr Birling, her boss, she was let go at the factory. Without money, you die. You cannot afford basic necessities like water and food, let alone necessary luxuries like shelter and clothing. Essentially employers control life. Mr Birling had the power to destroy the lives of every single one of his employees if he wished, and that is a serious problem for someone as incapable of empathy as he, - 'don't let all this community nonsense get to you'.

Helpless and hopeless, Eva Smith was offered a lifeline, another job at Millwards, a retail store where Sheila Birling, Mr Birling's daughter, regularly purchased goods. Most parents work to give their children good lives. Their wealth and their status passes on to their children. Sheila's father was an

influential man, so she was an influential girl and as a loyal consumer at Millwards she was a very influential customer, whose business likely meant a great deal to them. When Sheila caught Eva supposedly laughing at her, she was enraged, and demanded that she was fired. Another member of the Birling family causing this poor young woman to be jobless and homeless; as a result the second Birling to exercise that power over her.

Misogyny is and was rampant, significantly so in the era the book was set in. Men, regardless of class, regularly show their dominance over women and the resistance against this is fairly recent, certainly not something that would have been mainstream in An Inspector Calls. Gerald Croft found Eva at a prostitute bar and romanced her, falling into a relationship with her. She fell in love, he claims that he didn't, and therefore he ended it. He was aware that she was in an unfortunate state and sustained her as they saw each other. Despite her perhaps being oblivious to it due to her feelings, he had something over her - money. He didn't manipulate her with it, but he could have and when he stopped seeing her, intentionally or not, he had an impact on her in more ways than one.

Eric, Mr Birling's son, raped and impregnated Eva Smith, - 'I suppose I was in the mood where a man gets angry easily. ' He was an alcoholic and found her at a prostitute bar. He stole money from his father to sustain her when he found out she was pregnant, but when she realised it was stolen she wouldn't accept any more. She cut him off because she believed he didn't really love her. One of the most significant events in the timeline leading to Eva's suicide, her rape, was yet another show of power. Eric violated her in a surely worse way than the others, and gave a lady unable to support herself a child. She had no way of getting rid of it.

However, at the time of the play, there was simply no support available. There were charities but those were much less effective than the systems we have in place today such as child benefit, unemployment benefit, housing benefit and many more. Eva Smith only had the Brumley Women's Charity, which Mrs Birling was head of. Eva claimed her name was Mrs Birling, immediately infuriating her. Mrs Birling, although she came up with several excuses to cover the real reason, personally rejected her and overruled anyone and everyone who didn't agree in the meeting they had about it. This was the last display of power, the last resort for Eva. She had been fired twice, heartbroken once, raped, impregnated and shut out by the charity with a child on the way and no money, no housing and nobody.

The play although it takes place in a different time, carries an important meaning, one that is still relevant. Change your ways or the 'day shall come where all will burn in a terrible fire,' the Inspector tells everyone, imploring them to have empathy and think about how they impact those around them. Many people have power in some way and it is crucial to use it for the better. For some this is out of the question. Maybe it would be more doable to ask simply not to abuse the power we hold over others. In that case, one day we may have a world where everyone looks out for each other and not for a way to exploit one another. I believe that is the importance of the theme of power in An Inspector Calls and that's my interpretation of his message.

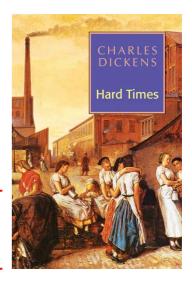
December 2023



Temi Oludare

Explore how Mr Bounderby reflects 19th century society.

Mr Bounderby is a cliched archetype of an entitled, self-serving and egotistic factory owner. Not only does he embody upper-class ignorance, but his narcissistic traits also illustrate how he is a representation of the capitalistic Victorian society during the 19th century. ✓ Throughout the book he never fails to flaunt his humble upbringings and is defined by his unfortunate childhood in which he 'hadn't a shoe' to his 'foot'. ✓



He shares Mr Gradgrind's strict and somewhat mechanical ideology as he embraces the identity of a 'self-made man' and Thomas Gradgrind's 'eminently practical friend'. Their shared views of 'facts' over 'fancy', determination and a head-over-heart attitude to life illustrate how their philosophy reflects the process of mechanising society with the adoption of industrialisation. $\sqrt{-v}$ good intro

In chapter 4 we are introduced to Mr Bounderby, a man with a 'pervading appearance on him of being inflated like a balloon'. His outward physicality reflects his 'inflated' ego $\sqrt{}$ and how his status and reputation are exaggerated and are not all he claims it to be. $\sqrt{}$ He is not only described as having a 'metallic laugh' but also being a 'bully of humility'; the word 'metallic' connotes machinery and suggests that parts of Bounderby are not completely human $\sqrt{}$ (which may be referring to how he is emotionally closed off and lacks kindness and compassion). The phrase 'bully of humility' highlights his pretentious nature $\sqrt{}$ as he shamelessly expresses his title as 'Josiah Bounderby of Coketown' repeatedly throughout the novel-despite being a man who lacks morals and basic human empathy. $\sqrt{}$ In this way he perfectly reflects the character of Mrs Sparsit: the housemaid who is also pretentious, self-invested and takes pride in her aristocratic background, which is further emphasised by her 'Roman nose' and 'Coriolanian' appearance. $\sqrt{}$

Mr Bounderby is extremely conscious of how he is being perceived by the public and those around him; this is shown through his marriage with Louisa and how it consequently came to an end. What Louisa and Bounderby have is a marriage of convenience, √ it is a marriage solely based on appearances and status as Louisa is of middle-class upbringing and is a major victim of Gradgrind's fact-orientated system and oppressive instructions. √ This unrelenting need to appear noble and superior to others is deeply-rooted in his insecurities; he cannot imagine being undermined and proven wrong as this would be a massive blow to his ego. Firing Stephen Blackpool after he refused to spy on the gatherings of Trade Unions, was an attempt to assert his authority once more over Stephen to remind him of the overwhelming influence he held. √

Similarly, ending the marriage he shared with Louisa as swiftly as he did in spite of Mr Gradgrind's efforts and arguments, was a response to the embarrassment he felt for the underlying situation. The fact that he was ignorant of his wife's actions and was unaware of Louisa's emotional instability?? caused him to react irrationally; ('crimsoned and swelled... on hearing...') he was humiliated by the sudden realisation that he was not treated how 'Josiah Bounderby of Coketown ought to be treated by his wife'. W

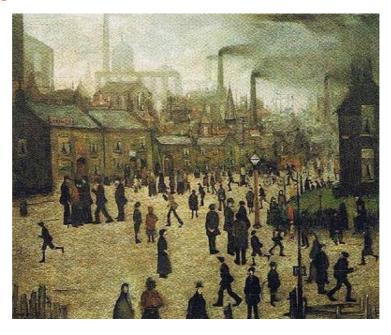
Although Louisa is the one in distress and turmoil, Mr Bounderby is only concerned with his own feelings. This heated conversation reveals the disparity between Mr Bounderby and Mr Gradgrind. Whilst Gradgrind acts according to his 'amiable' demeanour and has become 'much softened'- Bounderby instead 'took particular pains to harden himself' and claims he is 'not polite'. $\sqrt[4]{N}$ nice point of comparison Moreover, unlike Bounderby, Gradgrind sees the error in his rigid philosophy of 'facts' and tries to embrace his humanity and the 'fancy' that comes with it e.g. ('we are all liable to mistakes-'). $\sqrt[4]{N}$ However, Mr Bounderby continues to reject this notion and replies: 'I thought you couldn't make 'em'- which further accentuates how he is the representation of the educational philosophy upheld in a Victorian society, in which people were expected to favour facts above all else. Where does B refer to facts and the education system...?

How Mr Bounderby continually neglects and dehumanises his workers ('The Hands') as both a factory and a bank owner encapsulates the treatment all lower-

class citizens endured during a time of Victorian prosperity. $\sqrt[4]{V}$ Industrialism leads to mechanisation of workers through practical beliefs and misguided utilitarianism. This is evident through Bounderby's repeated mention of 'turtle soup and venison' with a 'gold spoon' these luxury items were mentioned as the workers complained of basic human needs not being met in the workplace. $\sqrt[4]{V}$ This is a metaphor for his ironically unrealistic beliefs about the sense of entitlement he sees in others and he uses this as a means of denying workers basic necessities. Furthermore it is a representation of the improbable assessments of workers' needs and desires. Additionally, after his true upbringing is revealed (by caring and devoted parents), - two?.. it indicates to us that social mobility is a hoax, it also calls into question the whole notion of social mobility in 19th century England. Ok, but did anybody really refer to it..?

To conclude, Mr Bounderby is a caricature of a capitalist business man who's sole purpose is to contribute to keeping the rich, rich and keeping the poor, poor. He is a typical representation of the rise of 'new money' and how it has influenced the lives of lower-class citizens with this increase in wealth. \(\fint \text{Through}\) Through Mr Bounderby, Dickens explores the dark underside of Victorian prosperity when he depicts the devastating effect of a utilitarian philosophy on the lives of the characters, both in the workplace and in schools. \(\fint \text{V}\)

- A very fluent and articulate response to the character and the context. Well done.
- Nice/relevant use of quotation and points together. Frequent use of text to illustrate points + comment on the effects of language.
- Well argued, well organised use of paragraphing and structure.
- 18/20 grade: A



PHYSICS

Students of physics have been enjoying active involvement in their subject from science club in Years 7,8 &9 to attending lectures and seminars for A level and some GCSE students. This not only supports their study, but also generates interest in the subjects and later on will play an important



part in supporting their application for University courses. Our Physics teacher, Miss Barbu has been proactive in arranging these activities — a wide range of matters to report on.



Science club

Junior scientists turned the lab into a bubble wonderland. From crafting cube and pyramid shaped bubbles to unravelling the secrets of surface tension and iridescence, the students discovered the magic behind bubble physics!

A Level and GCSE student activities UK Nano day - 08.09.2023

At this year's UK Nano day organized by Imperial College, our group of enthusiastic sixth form physicists delved into the fascinating world of nanotechnology, gaining profound insights into its applications and significance in various fields. Through engaging workshops and interactive sessions, these students learned about the cutting-edge advancements in nanoscience, exploring how nanotechnology revolutionises medicine, electronics, and materials science.





Imperial Natural Science Showcase - 20.03.2023

The Natural Science Showcase at Imperial and brings together Imperial's mathematicians, physicists, chemists, environmental and life scientists. It was a great opportunity to find out more about the diverse and cuttingedge research taking place across the science departments at one of UK's top universities. Our students enjoyed a full day of presentations and

stimulating discussions with the academics and prize-winning PhD students and found out about their innovative work.

Blast Science Fair - 30.10.2023

Students enjoyed a day trip to Oxfordshire and had the opportunity to attend a STEM fair in rural Oxfordshire. There, they took part in a few hands-on activities (building the most aerodynamic plane, building circuits), enjoyed talking to the scientists and even had the opportunity to discuss potential summer placements in STEM research. After the fair, students got the chance to explore Oxford and even had a picnic in one of its lovely parks!

Trip to Science Museum and visit to the interactive Technicians' Gallery



Our KS3 students had the chance to step into the fascinating world of STEM careers and experience what it's like to create visual effects on a blockbuster film set, analyse blood samples in a medical laboratory, operate a robot in a manufacturer's workshop, fix a fault atop a wind turbine and much more.

This new interactive Technicians' Gallery recreates the workplaces of technicians across multiple sectors – health science, creative arts, manufacturing and renewable energy – our KS3 group got hands-on with interactive exhibits that simulate job-related tasks

and enjoyed a day full of fun learning!

Physics and evolution - 06.12.2023

Physicists take for granted the universality of the laws of physics. But are there universal laws in biology? Surely, life is too contingent, context dependent, and just too messy to be described simply by the laws of evolution — and just "What is life?" anyway.



This was the topic of a talk at the institute of Physics, which our students attended this December. The keynote speaker was Dr Khatri, a theoretical physicist, biologist and currently a Research Fellow in Statistical Genomics at Imperial College London.

After the talk, the students got to meet the Vice Chair of the Institute of Physics and discussed volunteering opportunities with the institute.

This will be an excellent way for our students to gain work experience and support their university applications in STEM subjects. We will follow up on this in the new year.

Some students attended Events on their own:

- Building a career in data workshop Saad Akram
- Quantum computing at Rutherford Laboratory Saad Akram and Vonley Joseph
- Physics and Philosophy workshop at King's College Jacob Fessehaye and Vonley Joseph
- White Holes at RI Vonley Joseph
- UCL Space Observatory Talk Vonley Joseph

Christmas Assembly

Our Christmas assembly followed a traditional route in St John's church Kensal Green, celebrating the different aspects to the festive season from smells of Christmas to ways to show compassion and be caring, from the hard and difficult journey of the Magi to the need to be sympathetic to the plight of turkeys at this time!

It gave an opportunity to a number of students to perform by reading poems, verses or short accounts, notably one read by Matt Shin of a small boy giving a present which was invisible – the gift of love.

The Reverend David Ackerman gave us his thoughts on the meaning of Christmas and specifically how they relate to the area we work and study in.

Another highlight was the musical contribution by new student Steven Baily, who played his guitar and sang a 'Song of Worship' accompanied by Hamad. It filled the church with a joyous sound and induced a big round of applause.

The programme of items was:

		Year
Intro: the idea of Christmas	John Corcut	
Dear God,	Shaimaa Hjaoua	7
A Christmas Wish	Isaiah Braithwaite-Carter	7
The smells of Christmas	Nathan Michael	7
Worship song	Steven Baily	8
Christmas is for love	Matt Shin/Miss Holywell	П
The journey of the Magi	Temy Oludare	12
The meaning of Christmas	Rev. David Ackerman	
Account of a Visit by St Nicholas	Hector Zigliotti	П
Help Wanted	Roary Stoter	
Talking Turkeys	Alya Nasheed + Hla Ammar	П
The twelve days of Christmas	YII	П
Blessing of the Incarnation:	John Corcut	П
St John unfolds the great mystery.		
St John I		
Blessing	Rev David Ackerman	



