

THE

BIDDENHAM

DISCOVER MAGAZINE



RELAX...

...and challenge your brain with a short wordsearch



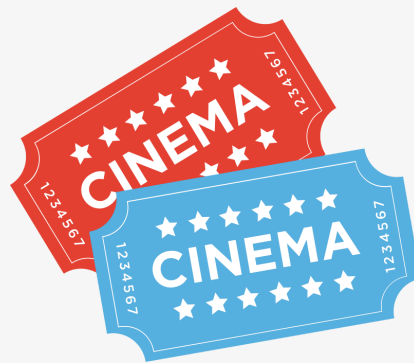
CREATIVE SUBMISSIONS

Some great pieces, including drawings...



COMPUTER SCIENCE

Learn something new!



LIGHTS, CAMERA, ACTION!

A movie review of "The Breakfast Club" - this should be stunning

FIND THE TEACHER!

Find this teacher hidden in the magazine. Can you guess who it is?



READY2LEAD?

All about Roma's experience of taking steps to be a better leader



IF YOU FOCUS ON WHAT YOU LEFT BEHIND, YOU WILL NEVER SEE
WHAT LIES AHEAD - GUSTEAU, RATATOUILLE

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Thank you to everyone who submitted their articles. We at the Biddenham Discover team, apologise to those who have not had their submission put in this issue of the Biddenham Discover Magazine. We would appreciate more submissions for our next issue, so please send them in (details in the poster). Thank you once again.

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MESSAGE FROM HEADS OF SCHOOL

Dear Readers,

Welcome to this edition of the sixth form students' magazine, 'Discover'. We like to think that as our students travel through the school, they are very much on that journey of discovery - who they are; what do they believe in; what values do they have and develop; what do they feel passionate about; what skills are they developing and ultimately, discovering what they want to do in life. These are big topics, and this magazine is a vehicle for some of our students to 'talk' about topics they are passionate about or publish poetry, drawings and artwork. It is by the students for the students and the process of putting it together and contributing to it, has resulted in a great publication that reflects our students' passions and interests, whilst being an opportunity for everyone reading it to also discover some new knowledge on a variety of topics.

It has become part of the fabric of sixth form life now, and we would like to add our thanks to the current editorial team and wish them well in their futures - they've done a great job.

We hope you enjoy reading it...



Mr D Bailey & Ms E Grylls

MESSAGE FROM MR BROWN

Dear Readers,

I hope that you all enjoy the latest edition of the Discover magazine. The magazine has gone from strength to strength since its inception. Recently our editorial team presented the magazine to a group of schools across Bedfordshire as an example of excellent practice. It is hoped that other schools will be able to learn from our experiences and be able to provide the opportunities to produce something similar in their own school. It is wonderful to see that the hard work and dedication of all the current team, and those before them, is being recognised in a wider context. Of course, it is not just the team that needs recognition, but all of you that have contributed to editions in the past. I hope that it will encourage more of you to send in articles, poems, artwork or any other contributions in the future.

We have just had a record number of sixth form applications, and I believe that the extra opportunities, such as the magazine, that we provide as a sixth form, has contributed to this. It is coming up to a really important time of year for all of you that have exams approaching, but please remember to take some time out to maintain a balance to all that you do. Take some time to read the magazine and explore some of the topics in more depth. You never know when the extra research may be of some use.

Good luck to all of you over the coming months and I hope you really enjoy this edition of the Discover magazine.

Mr Brown



THE EDITORIAL TEAM

Happy Easter and Ramadan Mubarak to those celebrating! Welcome back from your holidays! We hope you had a well deserved break and are ready for the summer term ahead of us.

As our Editor-in-Chief, we have: Alisha Kauser, and as our editors we have: Fauzia Begum, Joverea Malik and Zaynab Hussain. This is our last edition that we as a team will be coming out with, so it is a bittersweet moment for us but we are grateful for the opportunity that we were given! The next edition of the magazine will be from the new editorial team that we're sure will excel in the role.

We have had many amazing submissions from lots of students this term, and are very grateful for anyone's input into this magazine. The articles, the art and stories, showcase the extraordinary talent that we have here at Biddenham.

Lastly, if you have anything that you would like to be featured in the next edition of the magazine, then please have a look at the email on the back of the magazine. We are excited to see what you come up with!



NO LONGER HUMAN



Osamu Dazai, influential Japanese writer, author of famous works including *No Longer Human* and *The Setting Sun*, and who is my favourite author. I'm going to be taking a look at his book *No Longer Human*, influences and suicide shortly before his 39th birthday.

Born with the true name of Tsushima Shūji, on the 19th of June 1909, the prolific writer focuses on a confessional style of writing that allows the author to open up where they would otherwise be unable to. Dazai also preferred his stories to have a prominent introspective tone. Through these texts, Dazai would attempt to either narrate his own life experiences, observations, feelings, or attempt to deal with them.

The most well known example of this being *No Longer Human*, the Japanese author's last complete work, before he committed suicide in 1948. As a semi-autobiographical work, it depicts much of Dazai's own life through the eyes of the main character, Oba Yozo, from his failures with love, to his participation in the Communist Party, to the momentary bits of tenderness in his life. Dazai shows a scarily realistic look into the mind of a man that struggles through depression, alienation, and addiction, as he searches for a way to be human.

The book holds a particular focus on the alienation of childhood depression, describing the way Yozo moves through life in a time before the language of mental illness was ever discussed out loud. The first two lines of the book, "Mine has been a life of much shame. I can't even guess myself what it must be to live the life of a human being", echo the way Dazai felt about himself, and the disconnect he felt from the world around him. Looking back, this is now known as 'dissociating', - a common side characteristic of depression, dealing with traumas (both of which the writer was plagued by). Even though it was written almost 75 years ago, Dazai's semi-autobiographical account of his mental illness, easily reminds me of modern depictions of depression and anxiety.

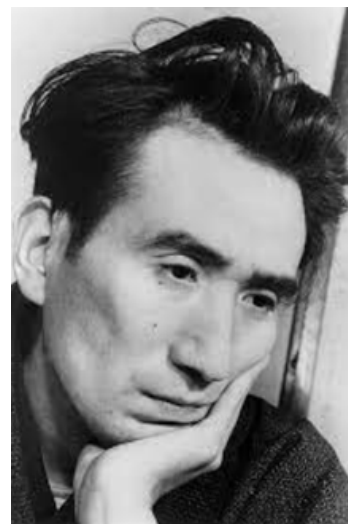
From the first to the last page, Yozo feels detached from everyone around him, and 'ceases to be a human being'. That sounds unbearably sad, but the more I think about it, the more I find it liberating. If you think of all disgusting things that 'humans' have done, the 'inhumanities' their rotten minds have come up with, all the wars, tortures, injustices, hypocrisies - 'the centre of humanity is cruelty', (*Archives of Pain* by Manic Street Preachers). If I take all of this into consideration, then please, disqualify me too, I don't want to be a human being anymore.

Dazai was shunned by his inability to feel and act the same way others do, particularly in Japan after coming out of the Second World War. So to be 'No Longer Human' suggests that perhaps he lost something after surviving, even without having to go and fight (due to tuberculosis). Something that he had perhaps been clinging onto, when he finally couldn't take it anymore, and committed a double suicide in the Tamagawa Aqueduct in Tokyo, with his mistress Tomie Yamazaki, after four failed previous attempts. Their bodies were not discovered until six days later, on June 19, which would have been his 39th birthday.

In the spring of 1948, Dazai worked on a novelette scheduled to be serialised in the Asahi Shimbun newspaper, titled Guddo bai (the Japanese pronunciation of the English word "Goodbye") but it was never finished due to his death.

Dazai's main influences in his writing are, Ryūnosuke Akutagawa, Murasaki Shikibu and Fyodor Dostoyevsky, which are clear from the corresponding themes of isolation, dissociating, desperation etc.

These themes run throughout all of Dazai's work. So much so that, at times, he seemed to revel in and even relish the dissolution he felt, as if it was a drug that—like the heroin he started taking in his twenties—he couldn't resist, not because it made him feel good, but because it made him feel human, which is to say, flawed. Dazai could only access his humanity, through his personal failings. Hence his addiction, one that led him to seek ever greater depths of dissolution. Yet his personal failings were his artistic triumph, leading to the renowned books we know today. Even going so far as to name a literary prize (The Dazai Osamu Prize).



All in all, I find Osamu Dazai to be a haunting, tormented and fascinating character who was dragged down by many miseries and misfortunes, in his short and unhappy life, until finally he ended it. There is a lot to be taken from his writings, and he doesn't hold back on his views of the world and the ugly truths that lie within, because not every story has a happy ending, or even beginning, and Dazai himself is a perfect example of this. Perhaps so much so, that through the lamentations of his life and death, he became his greatest masterpiece, as well as his final work ; demonstrating and finally conveying everything he could never quite get across before, to the world.

ROMA KEALY

NUCLEAR WEAPON SYSTEMS

The purpose of this article, is to give a brief overview on the effects of nuclear weaponry, and the dangers that it poses. With current geo-political tensions, China's threat over Taiwan, and Moscow celebrating its 'Day of the Strategic Missile Forces' this December 17th, the risk of all-out nuclear war has never been higher. We must acknowledge that this could be a very plausible outcome in the near future, and I for one, feel better staying informed.

Before we can even talk about Nuclear Weapon Systems, we need to grasp a few fundamental concepts:

An explosion, in general, results from the very rapid release of a large amount of energy, within a limited space. This is true for conventional "high explosives" such as TNT, as well as for a nuclear (atomic) explosion, although the energy is produced in quite different ways. In a conventional explosion, the energy released arises from chemical reactions. These involve a rearrangement in the nuclei of hydrogen, carbon, oxygen, and nitrogen, which are all present in the chemical high-explosive material. In a nuclear explosion, on the other hand, the energy is produced as a result of the formation of different atomic nuclei, by the redistribution of the protons and neutrons.

These processes, which are known as Fusion and Fission, are the fundamental backbone of any nuclear weapon.

At the most basic level, fission is the action in which a neutron collides with a larger atom, forcing it to excite and split into two smaller atoms, known as fission products. This process creates neutrons that are also released initiating a chain reaction. When each atom splits, a tremendous amount of energy is released.

Whereas, fusion is the polar opposite of fission. Fusion, as the name states, occurs when two light nuclei fuse to form a single heavier nucleus. This process releases energy because the total mass of the resulting single nucleus is less than the mass of the two original nuclei. A phenomenon that can be well described by Einstein's famous equation, $E = mc^2$.

Now that we have a basic understanding of fission and fusion we can finally talk about what we are all here for; how do nuclear weapons work?

Firstly there are two types of nuclear warheads; a conventional nuclear warhead (first developed in 1942), and a thermonuclear warhead or more commonly known as a hydrogen bomb (first developed in 1950)

For descriptive purposes, five types of burst are distinguished, to be used for the many variations and situations that may concur. The main types are: (1) air burst, ordinary opaque materials; hence, surface burst, (2) high-altitude burst, (3) underwater buildings and clothing can provide pro-burst, (4) underground burst, and (5) tecton.

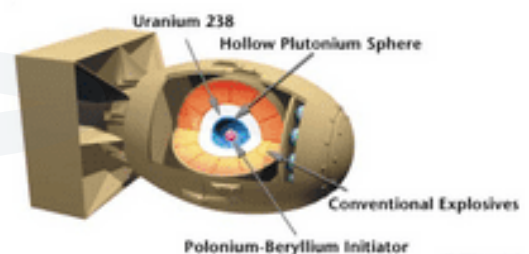


Fig 1

A first generation nuclear warhead, as shown in fig 1, is an explosive.

HOW COMPUTER CODE CAN DESTROY A NATION

When we think of computer viruses, we tend to think of them in relation to our own devices. We worry about our own individual data being compromised. However with our growing dependence on technology, a lot of our infrastructure is now connected to computers. Things such as the National Grid, which supplies our energy, depend on computers and servers. We are massively dependent on huge computer systems. Think back to a lesson where you lost access to Google Drive.

But what if viruses target these crucial computer servers? We have already seen many examples of this, giving us a glimpse into the potential destruction. An example of this is Stuxnet, an American computer virus which demonstrated an ability to remotely and covertly damage Irani nuclear centrifuges, which are used to purify uranium - the fuel needed for nuclear energy and nuclear weapons.

After tracking Pakistan's nuclear program, the USA was able to track centrifuges being sold to countries including Iran. As the USA confiscated some of these centrifuges from Libya, they were able to reverse engineer these and understand them. The USA and Israel were increasingly worried about Iran's nuclear programme, and whether it was a weapons programme. In order to sabotage, the USA developed Stuxnet. They managed to get it onto the nuclear facilities systems through a USB into a contractor's computer. From here the virus spread. It did several sophisticated things in order to ruin the centrifuges; this included it taking control of the centrifuges in order to adjust their rotation speed just enough to damage the machine, all while feeding back normal data to the monitoring system, making it seem as though there were mechanical issues to workers. Through this, it is estimated that they destroyed 1000/9000 centrifuges.

While doing this, the code was altered to infect every computer it could. This got out of hand and eventually infected many computers all over the world. This ultimately resulted in the world finding out about the malware; leading to researchers writing a seventy page article about how the virus worked. Most analysts assume it was the USA behind it, the only country with the resources and motivation to have done this. However, this creates a new issue in our world. Is this an act of war?

This very specific attack was programmed in the late 2000s. Since then it is likely nations such as the USA have enhanced their ability to carry out such an attack. This could culminate in a digital first strike in case of war. This means a nation would take out every computer system in a country, including things such as the energy grid, remotely. An even worse attack could be the use of a hack, which wipes an entire system. Such an attack, if coordinated properly, could cause widespread panic. Many hacks like this done together, could bring a digitised nation to its knees.

RAYHAN MIAH

ANTIGENIC VARIABILITY

How we keep getting infected with the same diseases

Have you ever wondered why every year millions of people get the flu? The symptoms are all the same, and there are many flu vaccinations constantly being designed - so how do people still manage to contract the flu? In this article, I will be discussing antigenic variability, and how lots of viruses and bacteria change their shape and features.

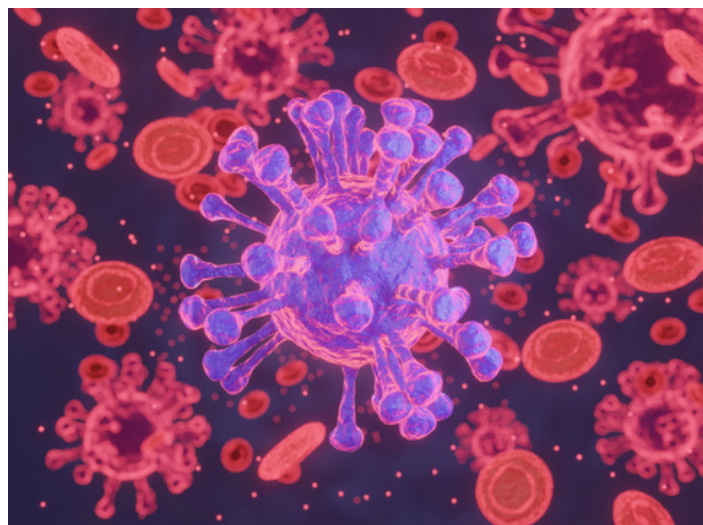
What are antigens and antibodies?

An antigen is a type of protein found on foreign particles (such as bacteria, viruses and toxic substances). The white blood cells in our body have the ability to recognise these antigens as foreign, and they create a response using the immune system in order to fight the antigen. Antibodies are proteins that have a similar shape to a specific antigen. The role of an antibody is to bind to an antigen and destroy it so it therefore can no longer harm any healthy cells. Antibodies are rapidly created when a new antigen arrives in the body. So when we get our COVID-19 or flu vaccinations, we are injected with a small amount of harmless antigens, in order for our immune system to remember the antigen, and make antibodies and protect us from it.

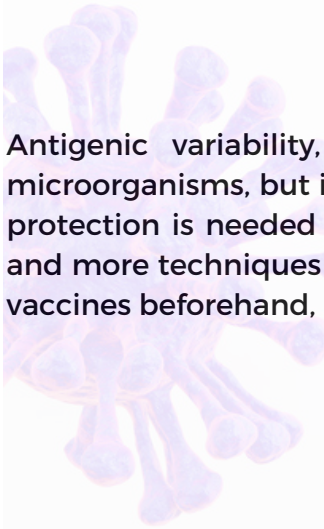
What is antigenic variability?

Antigens stick out on the surface of the cell that they are on (seen in the image below).

However, in some pathogens (organisms that cause disease, like viruses), their DNA can mutate. This change in genetic information, means that anything can now change in a pathogen, and it's usually the antigens. A pathogen can change the looks and shape of their antigens, so that the immune system will no longer recognise the antigens ever being in the body. This becomes a problem, because the antibodies that the immune system creates, can no longer recognise



these new antigens, and they won't be able to fit together and destroy the antigen. This results in the immune system having to work again, to create antibodies for the different antigen, so that it can be destroyed, and the body becomes immune to it. So the influenza virus from last year, most likely changed the shape of its antigens, and this year now infects millions of people, because no antibodies recognise the newer versions. This is the case with the different variants of coronavirus we saw during lockdown, like Omicron, Delta, Alpha and Beta. These are all the same virus, but their antigens are a little different, so that antibodies from different variants can't recognise them.



Antigenic variability, is a very strong and powerful survival strategy for many microorganisms, but it can be difficult to deal with, especially when vaccines and mass protection is needed - like with the COVID-19 pandemic. For the influenza virus more and more techniques have been developed to catch new variants early on and produce vaccines beforehand, preventing disease.

ELISHA KAUR



QATAR TO ENGLAND

(technically England to Qatar to England)

Qatar is a peninsular Arab country, whose terrain comprises of arid desert and a long Persian (Arab) Gulf shoreline of beaches and dunes. Also on the coast is the capital, Doha, known for its futuristic skyscrapers and other ultramodern architecture, inspired by ancient Islamic design. I had left England during 2009 at the age of 4, and had been raised in Qatar for 11 years. This made me more used to the lifestyle in Qatar rather than life in England, thus making a few common things more difficult for me when I arrived here.

There are a few examples of what situations were different, but I'll be discussing one that happens the most: the currency.

The currency in Qatar is known as riyals, (can also be said as QR1 for one riyal). It was quite difficult to get used to pounds, as it was a bit different than Riyals. The difficult part about buying anything here was finding out what's expensive and what isn't. This is because the currency exchange rate is:

1 pound equals to 4 riyals

So every time I would make a decision in my head on what to buy, it all came down to multiplying the price by 4.

Another key difference was the transport by train

Doha was a small city, there was rarely a reason to go out of town, and everywhere was just a car ride away. However, there were some places to go that could take nearly an hour to reach, that was until 2019 when the metro train had started operation. This allowed you to reach from one side of the city to the next in about 25 minutes. This helped a lot when visiting a friend of mine.

However, it was different from the trains in England in many ways. From the way you pay for the train ride, how far the train goes, or where to stop, was very difficult for me.



ANAS ELSAYED

DOING PROPER RESEARCH WHEN OWNING A SMALL ANIMAL

Pets are beautiful things to own and care for. They are living creatures that are a testament of the care that resides within us. For example looking at dogs, there are countless numbers of studies that are constantly being updated on how to properly care for them. The same can be said for cats, horses or any other large domesticated animal. But what about small animals? The cute little gerbil you bought for your daughter as a first pet, and stuck in a cage, that has just about enough room for a shelter, small wheel and maybe a food bowl - sadly these things do not fall under the correct care for them. Small animals are horrendously overlooked, and have been for many years, starting with when they were first marketed to the public.

The Origins

Small, cute and easy to care for, is what a 'Teddy hamster' (or Syrian hamster today) was first presented to the public in the 50s. A perfect first pet for a young child to 'practise with', so they can upgrade to a bunny, cat or dog. Sadly this was not the case, parents instead found that after they put the hamster into the tiny cage, it would become aggressive, biting when strange grabby hands chase them around the small space and corner them. Another misconception, was that hamsters were diurnal. Instead their nocturnal nature, leads to little ones being kept up from the rickety old wheel spinning, or maybe the twanging of the monkey baring or biting. All of these behaviours lead to an eventual loss of interest. A shove to the back room, where there is an occasional feeding, and just counting down in days until the little plaything dies. If someone did this to a dog, they could easily face prison time.

After a bit of research, you may come to find that there are studies, albeit few and far between, on small rodent care. For example there are studies on proving small animal stress behaviours such as bar biting, wall scaling and monkey baring, and its link to preemptive death from rodent disease, such as wet tail. Other studies show the reduction in those signs, from having larger cages for example (80 by 50 cm), with a deep bedding depth (40cm- 80cm), so animals can experience natural behaviours. All of this comes up after about 15 minutes of research, so why do we purposefully ignore the better information?



Why this is still affecting animals today

There are two factors in this, past misinformation from lack of studies, and money. Pet shops are the main perpetrators; selling little plastic cages not big enough to fit a proper sized wheel. They want you to buy the animals, and the average person won't if they know the amount of money they have to spend on them. They purposefully express information on small animal care from many years back. Rodents are seen as a cheap pet, disposable because of its life span, and 'easiness' to look after. This changes when you are caring for it properly. Feed for a varied diet, a large cage, deep bedding, lots of activities, and substrates to fill the space, and many other things for enrichment costs a lot. For my hamster I spent 350 pounds on start up costs alone, and around 30 pounds at least a month after that. A lot of people aren't willing to give up the idea that hamsters are cheap, but should you expect any animal in your care to be cheap if properly looked after?

When I got my first hamster, I fell in love with her. I named her Jewel, and I had her in a pretty pink pet shop cage that was cutesy and small enough to fit on a dressing table. After a period of time, I first started watching hamsters on YouTube after owning her for a bit. I saw all of my mistakes, and immediately started trying to change them as best as I could. It's okay to make mistakes when you first find something out, as long as you try and rectify them, especially when it comes to a living creature. That's where a lot of people fail, they close off, and refuse to believe they are mistreating their pet. Maybe that is because it is easy to realise they do not have the money, or time required for the animal, but still wish to keep it. This is not excusable. Willful ignorance kills.

What you can do

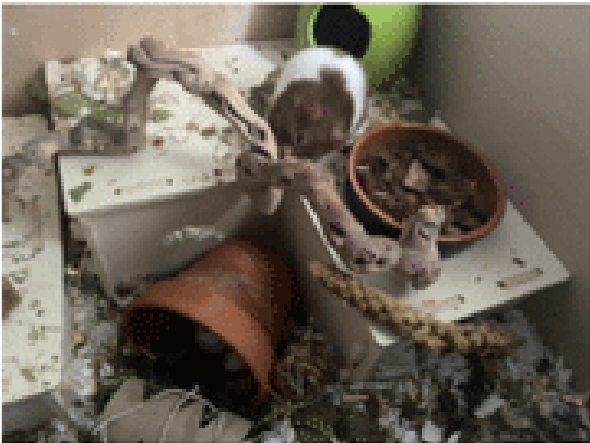
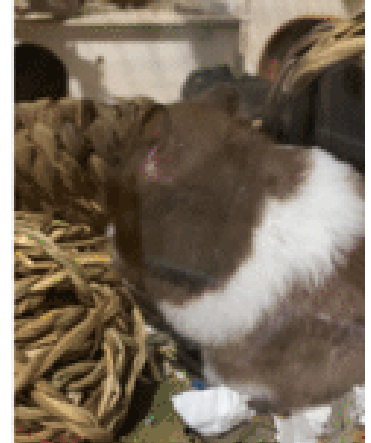
If you already own a small animal, start doing research. Learn how to recognise stress behaviours, and how to build care from that. Once you have the basics (i.e ALL hamsters to be housed alone, mice and gerbils housed depending on their gender), the first fix I recommend (specifically for hamsters, gerbils, mice etc.) is a cage upgrade to at least 80 by 50 by 50 cm, but always go as large as you can, so you can avoid unnecessary upgrades in the future. Also, toss out those rickety plastic tubing that offer no enrichment, and switch it to deep compact substrate as most burrowing animals don't get anything out of being in the tunnels. After that, research deeper ways of enrichment. An easy way is to scatter feed to encourage foraging behaviours, but also include naturally foraged plants ('sprays') such as flax, oat, millet, etc. On the topic of feed, research your animal's diet, and find the best mix for them. I personally use Rodipet Syrian Hamster feed from Germany, as I don't find any hamster feeds found in the UK in the correct variety. The German shops hold small animal care and health a lot higher than English companies.



If you read this and think that you can make those changes, amazing! There is also a lot more research to do beyond that, but if you think you can provide it, then go for it. If you're reading that and thinking the opposite, though, there is still something you can do. Give your small animal up for adoption.

My current hamster (Primrose), I adopted from a woman who had some of the worst care I have ever seen. Tiny cage, dusty sawdust, suffocating tubes, the lot. Though, at the same time her cage was clean and tidy, and Primrose was very used to human touch, having been handled a lot. She was loved. As a final act of care, after finding out about hamster care, and realising she couldn't provide, the woman put Primrose up for adoption. An extremely admirable move.

All in all, always do research before owning any pet, big or small. No animal is 'cheap' or 'easy' when cared for to the best of your ability.



BETH DAVISON

CONNECTIVISM

In 2005, two psychologists George Siemens and Stephen Downes, decided to introduce this new educational theory called the connectivism learning theory. This theory was about using digital technology to bring people together, and create new learning opportunities. But who were these two people? Well, George Siemens was a Canadian professor of psychology at the University of Texas at Arlington, and a professor and director of the Centre for Change and Complexity in Learning at the University of South Australia. Stephen Downes was a Canadian philosopher and commentator in the fields of online learning and new media. He had been exploring and promoting the educational use of computer and online technologies since 1995.

But in 2005 these two psychologists decided to form this new idea. They believed that people tend to learn and grow better when they form connections with others. The idea of “connectivism” began, when they saw individuals turn to digital technology to solve a problem. This would include actions such as googling a question, or texting a friend to gain advice. They believed that the use of digital technology to help solve a problem, helped the user’s understanding of a topic, as they are acquiring almost instant feedback and advice for problems they may have.

Even now this theory has been used as we see remote work and remote learning being the norm for jobs across the world. Likewise, in schools, a student can miss a day off school, but they are able to go on apps like google meet or zoom, and can still technically attend the lessons even if they are ill. This helps the student not miss a single moment of learning, and will make sure they do not fall behind.



KAWSER MIAH

CAN ARTIFICIAL INTELLIGENCE CREATE HUMAN PROTEINS?

Artificial Intelligence, also known as AI, has the power to use computers and machines to mimic the intelligence displayed by the human mind. AI has given greater insight into matters, allowing accurate, repetitive and detail-oriented tasks to be performed.

Speaking in terms of biology, our bodies produce around 20,000 proteins which are used for many bodily functions, from digesting food to moving oxygen through the bloodstream. Researchers have thought about this idea, and are working to create proteins that are not found naturally, in hopes to improve our ability to fight diseases and do things that our bodies cannot on their own.

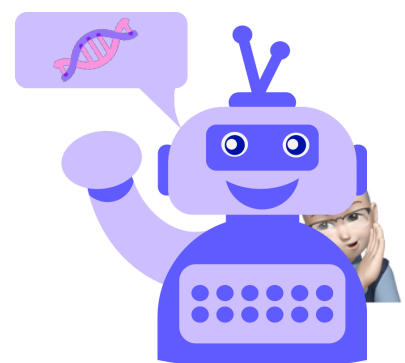
David Baker, a director of the Institute for Protein design at University of Washington and his team, have made it possible to build proteins with the use of AI technology. As we already know, proteins begin as strings of chemical compounds, which twist and fold into three-dimensional shapes, that define how they behave. AI has shown that neural networks can accurately guess the three-dimensional shapes of any protein in the human body, just by the smaller compounds it contains which is a huge scientific advance.

Their next step is to use these systems to produce blueprints for new proteins that do not exist in nature. A protein that can take very specific shapes which can perform particular tasks, such as fighting the virus that causes Covid. After these are produced, they will be tested in a wet lab with chemical compounds, to see if they carry out their roles.

With this being said, AI is also becoming very popular in the healthcare sector. In healthcare, one of the goals is to improve patient outcomes and reduce overall spending costs. AI machines allow faster diagnoses to be made. The system mines patient data and other available data sources, to form a hypothesis, which is then carried forward and tested.

Another benefit of AI, is its use in online virtual health assistants, where patients and healthcare customers can find medical information, schedule appointments, and complete other administrative processes in a matter of minutes. These are just a few of the many things artificial intelligence can do, and it has the power to progress further in the future.

SAMEENA HAMID



READY2LEAD

My name is Roma, and I have been lucky enough to be part of this year's Ready2Lead project, along with about ten others. Ready2Lead is all about promoting young entrepreneurship, and empowering young people to shape and direct their creativity into something that can be used for the betterment of society.

The first session was mainly about getting to know people and giving us an idea of the sort of things we would be coming up with, providing us with examples of successful projects started by young people and their imagination.

Ready2Lead has been incredibly positive and nurturing in developing our social skills, building off of our ideas, teamwork, and identifying individual strengths and weaknesses to work alongside them and improve on them.

After weekly group meetings to put together our project, as well as a video presentation, we attended the second event which was virtual, and we discussed our final project idea with Simon, the teacher who set up and hosted Ready2Lead. Here we got some feedback on our project and the video, as well as some tips for our final presentation, which we'd have to do in front of all of our peers at the third event.

After continuing to practise, our final presentation in school throughout the next few weeks, the third session finally came around. I personally loved this one, as it was a chance to celebrate our ideas, as well as our progress, while getting to catch up with all the great people we'd gotten to know on the way.

We successfully gave our presentation, and got to talk to many people who also gave us some very positive feedback. We were then given the choice to sign up for the 4th and 5th sessions, which would allow us to implement our project should we wish to. Our group decided we did want to take it further, and we have so far attended the 4th session, where we planned our next steps in detail to promote our projects.

On the whole, I would say that Ready2Lead has been incredibly rewarding as well as useful, and a real positive experience, teaching us the power of our voices and ideas, and how we can put into practise our skills and strengths. I would definitely recommend taking part, if the option is given to you, as there is lots to take away from it, regardless of your project and its success. It is definitely worth getting involved with, for the added value it gives in terms of a valuable super curricular activity, for various applications you will face in the future.

The logo for Ready2Lead? features the word "Ready" in a white, bold, sans-serif font with a black outline. The number "2" is significantly larger, rendered in a bright orange color with a thick black outline and a slight shadow effect. The word "Lead?" follows in the same white, bold, sans-serif font with a black outline as "Ready".

ROMA KEALY

WHAT IS GRAPHIC DESIGN?

Graphic design is a broad field that encompasses a variety of disciplines and techniques. It is used to create visual content that communicates a message, conveys a feeling, or tells a story. It is widely used in advertising, marketing, publications, logos, and more. It is an integral part of creating a cohesive, attractive, and effective visual presence.

Graphic design is a creative process that involves a combination of art and technology. It is the art of creating visual elements that convey a message or evoke an emotion. Designers use a variety of tools and techniques to create these elements, including typography, colour theory, photography, illustration, and more. By understanding the principles of graphic design, designers are able to create effective visuals that capture the attention of their audience and convey the desired message.

The most important aspect of graphic design is communication. Designers must be able to effectively communicate a message to their audience, in a way that is visually appealing and engaging. To do this, designers must consider the audience's perspective, and understand how to use visuals to convey a message. This includes choosing the right colours, fonts, images, and other elements, that will help to draw the viewer in and drive the desired response.

Graphic design is a complex and ever-evolving field, that requires a strong understanding of the principles of design, creativity, and innovation. By mastering the fundamentals of design, graphic designers are able to create powerful visuals, that can make a lasting impact on their audience.

A personal favourite piece of graphic design of mine is Coca Cola. Coca-Cola's iconic branding and marketing is built around its signature red and white colour scheme, which stands out from the competition, and is instantly recognizable. Its distinctive script logo, which is associated with fun, optimism, and happiness, has become one of the most recognizable logos in the world. Its advertising campaigns have been iconic, featuring memorable slogans like "The Real Thing" and "Real Magic". Chief Marketing Officer Manol Arroyo has said: "Coca-Cola is a brand defined by dichotomies: humble but iconic, authentic yet secret, real yet magical. The Real Magic philosophy is rooted in the belief that dichotomies can make the world a more interesting place - a world of extraordinary people, unexpected opportunities and wonderful moments. At the same time, it captures the essence of Coca-Cola itself; a real taste that is indescribable, unique, a touch of real magic." The company also frequently uses celebrities in its campaigns to make its products more accessible and relatable. Coca-Cola also sponsors events, such as sports tournaments and music festivals, to further promote its products and create a strong brand identity.

To conclude, graphic design is an essential tool for any successful business, and Coca-Cola is a great example of how powerful and effective graphic design can be. By combining creativity, innovation, and an understanding of their target audience, Coca-Cola has created an iconic visual identity, that has stood the test of time. In other words, the world is a vast and untouched canvas, awaiting the brush strokes of individual and collective imagination to bring it to life.

Quote from: <https://www.marketingweek.com/coca-cola-new-brand-platform/>

SHAHBAAZ ZEB

Flower Wordsearch



E	L	Y	B	U	T	T	E	R	C	U	P	U	L
R	A	N	U	N	C	U	L	U	S	F	A	I	Y
C	O	R	N	F	L	O	W	E	R	E	E	S	I
J	A	S	M	I	N	E	O	G	G	L	I	A	P
D	L	O	G	I	R	A	M	N	K	T	D	I	H
E	S	A	L	E	E	A	A	N	A	A	L	Y	T
L	U	I	H	E	R	R	I	M	F	U	D	L	N
P	C	N	N	C	D	W	E	F	T	N	A	S	I
H	S	U	S	Y	I	L	O	L	I	L	A	C	C
I	I	T	H	R	C	D	F	R	E	E	S	I	A
N	B	E	E	T	I	E	T	E	L	O	I	V	Y
I	I	P	W	L	S	G	R	A	S	T	E	R	H
U	H	Y	S	O	R	C	H	I	D	A	I	S	Y
M	F	O	R	G	E	T	M	E	N	O	T	M	I

- DAISY
- PERIWINKLE
- VIOLET
- HYACINTH
- MARIGOLD
- CLEMATIS
- LILAC
- FORGETMENOT
- HYDRANGEA
- RANUNCULUS
- BUTTERCUP
- DAFFODILS
- ASTER
- DELPHINIUM
- HIBISCUS
- CORNFLOWER
- FREESIA
- JASMINE
- PETUNIA
- TULIP
- ORCHID
- ROSE



MR PRICE'S CAREER JOURNEY

I studied Biology at the University of York in the late 1970s. Like most students, I was torn between which subject to pick, eventually biology won through, as I was interested in learning more about the living world. I chose York University, as the course there was well rated, and the campus was small and friendly. During the course I discovered the need for mathematics, as this time it was applied to my interests such as analysing biological data. More importantly this was also my first exposure to computers, as my secondary school had none, and hence did not teach the new-fangled subjects such as computer science.

My initial employments were in the travel agency, with some opportunistic work in France, and some work in the engineering sector. Neither of these were that fulfilling, so at the same time I embarked on several open University courses, pushing my skills in Mathematics. This led to an MSc in Computer Science at Birmingham University, which I thoroughly enjoyed. (Prior to this course I rushed myself through a city and guilds course in computer science, which is the equivalent to an A level). One thing that I have learnt, is that self-training and personal advancement is essential for getting you to where you want to be.

I then worked at Marconi's, for a couple of years programming in the Communications Sector. I picked up many good techniques, such as automated regression testing, which were ahead of their time. I was also researching improving computer standards. Almost by chance a pharmaceutical opportunity arose, for putting needed standards into place at a pharmaceutical firm, that was grasping at new computer technology. My background made me an ideal candidate, and together with bringing across automated regression techniques, gave a new impetus to pharmaceutical drug trial development. I have had twenty enjoyable years working at Bayer UK, and GSK, with much travel around the world.

All good things come to an end, and with the pharmaceutical industry becoming more involved in offshoring, and the interesting things now being done by other people, it was time to move on to fresh pastures. Teaching became another opportunity and challenge, so after studying at Bedford University, I joined the teaching profession at Biddenham. To date, the most interesting times were at the pharmaceutical firms, as I was able to employ and use all of my interests at once.

My advice. Never wait for things to happen, you have to have a plan and be prepared to work towards that aim. You may never know your final destination, so make the journey as interesting as possible. Above all, make it your journey, the one that you want to make, and no one else's.

MR PRICE

BEING A SENIOR PREFECT

I decided to apply for the Head Prefect role because I've enjoyed my time here at Biddenham, and thought it would be nice to give back, and help Biddenham become a place that everyone enjoys. Being a Head Prefect, and a member of the Senior Prefect Team, has opened me to many opportunities across the school. I've been able to work and interact with different students and teachers, in order to improve our experiences at our school. I've been exposed to some nerve-wracking tasks, such as holding speeches at our Open Evenings, and I think that my role as Head Prefect, has helped me develop lots of different skills.

Something that I'm especially proud of, is the work that the Senior Prefect Team and I have put into organising donation drives for the Bedford Food Bank. We were very happy with every student's contribution in the Harvest Festival, and we were extra proud that we won a second place prize for the amount of food we gathered! Additionally, our donations for Christmas In a Box were greatly appreciated by the Bedford Food Bank, and we were very happy to see every student getting involved in giving back to the less fortunate. As a school we managed to provide 440 meals! The Senior Prefect Team strongly believes that we should all try to help others whenever we can, and so we've taken part in many projects in order to do so.

Period poverty is an issue on the rise in the UK, and at Biddenham we believe that everybody should have free access to sanitary products all the time. Since last year, I've been able to work with Mrs Fountain, and find new ways that we can reach out to let students know that we have an incredibly large stock of period products, free to take home whenever needed. For the past school year, I've restocked toilets throughout the school to ensure that students have access to products in emergency situations, and I've also created small stations in H-Block (upstairs) and T12, where products can be taken during lessons. Also, products are available in E2, and we have an ordering system via google forms, so that you can order any products you need, and collect them in different ways. I'm extremely grateful to have access to, and help improve this scheme.

Being a Head Prefect has opened me to becoming a member of the Student Forum. The Student Forum is a school wide council meeting, which discusses student issues and finding the best solutions. This year, we've covered a wide range of areas, such as improving mental health awareness across school, and looking at ways to deal with student exam stress. We've managed to edit and give feedback on teachers' assemblies, presentations, and surveys to ensure that they're of help to all students.

ELISHA KAUR

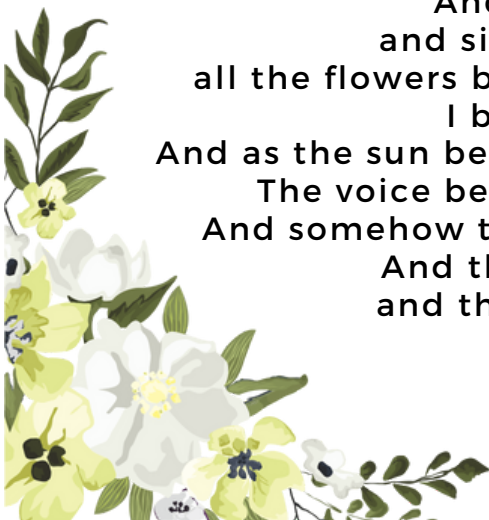
POETRY



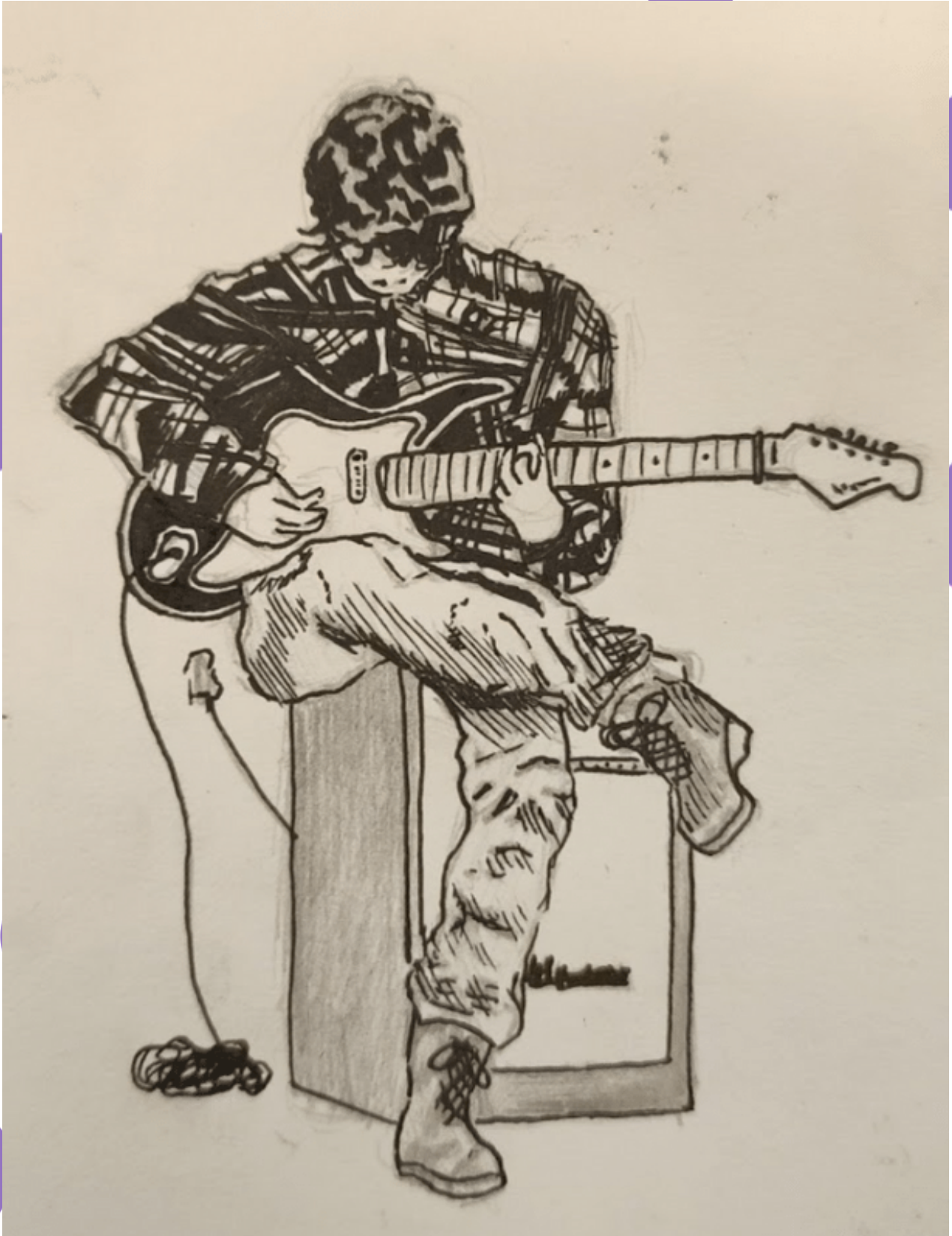
If life is a beach
Then you are the shore
And I am the sand
We touch ever so lightly
And depart once again



My eyes have gone through a baptism
Oh for I am filth
My hands are unclean with sin
And I hear a calling to a nearby river
And I'll let her bathe me
and sing her into my thoughts
all the flowers bend towards the palms of her feet
I bend towards the sun
And as the sun began to set that Wednesday evening,
The voice began to echo through the night.
And somehow the water seemed a little warmer.
And the wind is a little tamer
and the dawn, not so far away.



MEGAN CHAPMAN'S ART



MEGAN CHAPMAN



MOVIE REVIEW- THE BREAKFAST CLUB

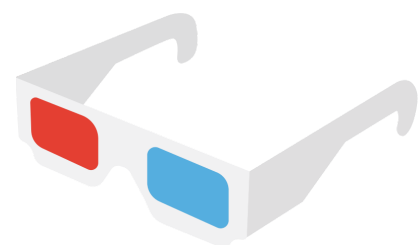
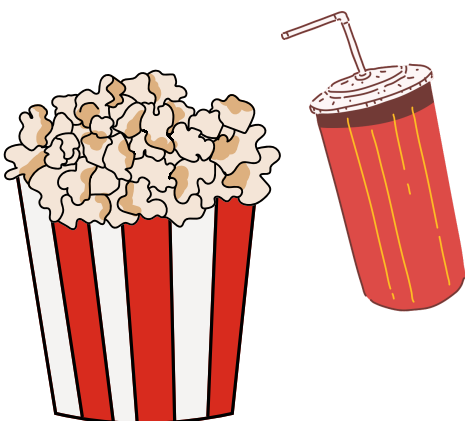
The *Breakfast Club* is a 1985 coming-of-age film, about a group of teenagers in Saturday detention, who bond despite their differences, as the grinding day tears down their egos, and allows them to reveal their emotions to each other. It is directed by John Hughes, who has created dozens of classic American movies including *Sixteen Candles*, *Uncle Buck* and *Home Alone*. This movie is a classic of the teen movie genre, and can be considered critical to teen American pop culture.

Prior to watching this movie, I assumed it was like any other American teen flick but was surprised by the plot being in a single day, and actually critiquing high school stereotypes. Ironically, it can be seen that by doing this it only reinforced the idea of the 'rebel', 'jock', 'prom princess', 'nutcase' or 'nerd' which is very typical of the 80s era. These individuals are different from each other, and yet found commonalities in their own vulnerability; they all ended up in the same place, the breakfast club. As teenagers, they go through a rollercoaster of emotions, opposing each other, getting along and then becoming angry at each other all in one go. The group coming together, can be shown by the classic hallway sliding scene, while trying to avoid the authoritarian teacher, and ultimately ends in Bender sacrificing himself for the group, showcasing a change in his character, as his ego is unravelled when he refuses to fight the teacher. One of my favourite scenes was Allison and Andy, facing the truth of their parents ignoring the real them, as the sexual tension rises where there would typically be a kiss. My favourite scene, was the penultimate scene, when emotions were exposed between the group as they sat down and discussed their feelings, in which they question would they be friends in reality without being forced together. Another poignant moment from this scene, is when Brian talks about the academic pressure he faces by ending up in the club, and rather than weighing the disturbing thought on the audience, it is lifted off through humour. This is followed by a schoolboy mistake of underestimating yourself, as the 'gun' he attempted to shoot himself with, was simply a flare gun, so could be metaphorical for a call to help, which is answered by him finding friendship. I believe that by presenting a different view of high school stereotypes overcoming their differences, it challenges the idea of an

establishment, as represented by the teacher who views the concept of children as scary, because they will grow up and become the dictators of society anyways. The Breakfast Club is a classic because it is about simple humanity, in which teenagers from any period since the 80s can see themselves, because these barriers and differences don't truly exist in real life.

My primary gripe with the movie is the referencing and physical evidence of sexual assault, which took me aback, when Bender comments on shutting the door to impregnate Claire the prom princess and sticking his face between her legs. I suppose this too was normal at the time, as John Hughes used this type of humour in other movies, in which Molly Ringwald herself looked back at, and revised the content of how the female teenage body was portrayed and discussed. However, I believe the honest conversation of virginity was rightly placed in the movie, America was both moving on from the purity culture of the 1950s, and slipping back into it slightly through censorship and Evangelism. There was and is pressure placed on girls about the concept of sex, Claire admitting she hadn't lost her virginity, can be seen as a moment of anagnorisis for her, as the image of the 'prom princess' is broken down, and she is simply a girl who shouldn't be shouldered with this label. On the talk of pressure and changing yourself, Allison's "glow up", seemed a travesty to me, going from an edgy goth look, which made her an outsider, to her becoming the 'typical' girl, when the movie already emphasised the need to be yourself to be accepted. She gets the boy (Andrew), because of this, but as an audience member, it can be suggested he would have fallen for her anyways. Adding a need for change reminds you of how the 80s can be viewed as a shallow decade for women by creating standards. Therefore the portrayal of teenage femininity in the Breakfast Club, is what one would expect from the 1980s.

In conclusion I can see why the Breakfast Club is a cult classic, although 80s pop culture permeates it, the subject of the film is universal for teenagers growing up since that decade across the world.



KHADIJA HUSSAIN



THE WADHAM PROJECT

The humanity aspect of the day was quite interesting and was focused mainly on patriarchy and gender. It was taught by a Masters student of Wadham college, who is from Chicago, USA and they were studying gender roles and equality.

To start off the session, we were asked to think about some questions such as "what is patriarchy?", and "how does patriarchy look?". These questions prepared us for the video clips, and an extract from a Shakspeare play that we were going to look at. We received an extract from Shakespeare's 'Taming of the Shrew', which is one of Shakespeare's most disliked plays. The extract was from a scene where one of the main characters named Kate has an outburst, and she says a lot of "disrespectful" things that went against society. They were seen as disrespectful, because they went against society's deep patriarchal views. She elaborated a lot on patriarchal things that were wrong with society. The husbands were called 'thy lords, thy kings, thy governor', almost as if they were some sort of God. This part of the monologue showed us how patriarchal society was at the time. It was shocking to us because we didn't think men were that powerful at the time. This quote showed, patriarchy was much more powerful than we thought. However, this quote shows how powerful men were in that time. Husbands were seen as some sort of God by women. Kate had this outburst at a banquet towards the end of the play. It was a really phenomenal scene because women were not allowed to do things like this, and it would have been frowned upon if they did something like this. Someone in our session even said that "she was too modern for her time." We were able to learn more about how patriarchal this society was, and it did make it easier to see how society has changed and developed over time.

After watching the scene and going over it as a group, we were then asked to give a definition of what patriarchy is. We all had similar ideas, but we also had things that varied in our definitions. We did say patriarchy is when generally men were in control of society, and were seen as the more powerful gender in society.

Next, we looked at two clips from a 'modern' film called 10 things that I hate about you. The film was made towards the end of the 90s. The first scene which we watched was when the main character, a teenage girl called Kat Stratford, had a one-on-one moment with her dad. It was a really wholesome scene and we could see that they were both on equal grounds. There was no power imbalance between them, and you could see that they truly loved each other. This did show us how the times have changed, and patriarchy was not a big thing in our modern society, at least in the west. The way the dad had to think before hugging Kat, showed us that maybe these types of scenes were not that common between them. On the other hand, the next scene that we saw did contrast this a little bit. This scene was between Kat's sister Bianca, who is also a teenage girl, and her boyfriend. Her boyfriend apologised after a fight, by buying Bianca an expensive guitar. She then accepted his apology indirectly by having a long kissing scene with him. This showed us that maybe this patriarchal idea may have changed, only a little bit, but it has not fully changed, because men were still buying women gifts, and giving things as a way of apologising but they actually don't say sorry. Patriarchal views have definitely advanced since the 'Taming of the shrew', becoming less of a view in modern day society, because men wouldn't apologise to women at all in the past. This scene did show how our modern day society still may have some patriarchal ideas left within it, but we are still changing views as time goes on.

This humanity taster session, was a really good session that enabled us to think a little bit outside the box. We were able to analyse scenes and texts, and express our opinions, whilst backing them up with evidence. I think that we definitely gained some skills from this taster session. I think the skills that we used would be skills that we would use during A Level and university.

"I really enjoyed the afternoon session. I got to learn more about why I should choose to apply to Oxbridge. It gave me a good insight into what makes Oxbridge different compared to other universities. I also enjoyed the part where I learnt more about extra and super curricular activities that I can do in order to help strengthen my passion and knowledge of my chosen subject. I found the day really interesting and eye opening in what to expect when applying to Oxbridge and university." - Aimar

AIMAR NASSOR

DISCOVER SOCIETY

Biddenham has a range of societies available for you to join!

One being the Biddenham Discover Society run by Sixth Form students every Tuesday lunch time.

So what do we do?

The society is available to anyone in year 10 and above. The prefects introduce subjects or topics that they think are good opportunities to broaden your knowledge or develop your skills. We look at trending articles, controversial topics and even help with your studies. However, these sessions can be tailored to what you want to learn about! If you want to go into politics (for example), we can run debates. Any suggestions are welcome :)

Over the last 2 years, we have worked hard to create CV workshops and help students find work experience opportunities to develop their resumes. Towards the new academic year, the society will look at personal statements and how to write one: what to mention; what is relevant; choosing a course and more. Sixth form subject ambassadors create sessions to introduce the members to subjects new and available to them at A-Level. In the past we have had Law students create interactive presentations discussing the subject itself as well as the different career pathways. It's an opportunity for you to ask questions and talk to your peers about their experiences.

To summarise, discover society is an opportunity for discussion and allows for anyone to join and learn something new (outside of your subjects).

For more information, please attend the next session at lunch time in N2 on a Tuesday or email abdul.shakoor@mybiddenham.com



CIVIL ENGINEERING

Recently, the year 12 physics class had a visit from a civil engineer from ASHE, Abdul Rahim, who informed them of what his job entails and the many career paths available for anyone interested in civil engineering.

Abdul takes contracts from a company to help with the construction of buildings, roadways, etc. Some of the tasks he does include deciding where supports should be placed for a building, making sure structural integrity is maintained when a part of a building is taken down and anything else to make sure construction is efficient and safe. One of Abdul's most proud projects so far was being able to help with the construction of a hospital.

Civil engineers have a tremendous impact on society as they are behind the ingenious designs of the buildings, bridges, transportation and the many more structural sensations that surround us today. With the help of these engineers, towns, cities and countries are able to function efficiently, prosper and live with ease.

SAHEER MAHMOOD



December 2021 Vol 3 - 3rd Edition

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BE THE DIFFERENT THINGS WHILE THEY ARE JUST ONE OF THE SAME THINGS WHILE THEY ARE SMALL, A BUNCH OF A THOUSAND WILL MEET AGAIN WITH A SINGLE ZIP. - LAY LAY

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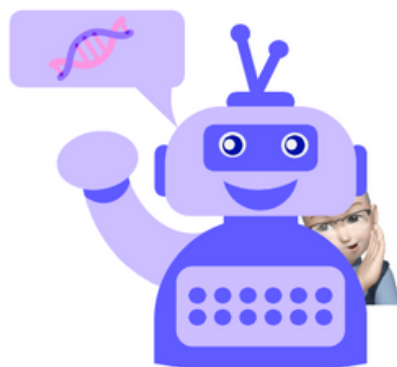
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Did you find Mr Strzelec?
SEE PAGE 15...



THE

BIDDENHAM DISCOVER MAGAZINE

"Success only comes to those who dare to attempt." - Mallika Tripathi

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