

THE PENGUIN AUTUMN 2021 PT.2

# ILLUMINATE

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OF THE ILLUMINATI

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ANOTHER CHANCE

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*Dear Reader,*

Well, we've made it to the festive season! Even as the days grow shorter, and the streetlights reflect in the 4pm rain on Trinity Walk, the Penguin Team has been racing to get this digital issue ready to *Illuminate* your screens. It's been a mammoth task at times, but we're really pleased with how it's ended up. And what a journey it's been! We hope this is apparent in the articles we've included, from the return of the much-beloved Overheard @SHHS to top ideas for a Sustainable Christmas and an in-depth study of why we're so obsessed with the Illuminati.

This will be the last digital issue from this formation of the Penguin Team, but don't fear, we'll be back for one last run before the bell rings when we... well, we'll keep it a secret for now! In the meantime, we are handing over the reins to a fresh team, who are all ready to move The Penguin forwards into 2022. But for now, find a snuggly blanket, a mug of your favourite beverage, and maybe some gingerbread (there's a great recipe at the back), and come with us on this penultimate trek through the snow. We hope you enjoy!

*Your Editing  
Team*

# Letter from the Editors

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Editor's Playlist

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We would also like to extend a massive thank you to Ms Pearce, without whom this issue would not have been possible!

*'Can I just take off my arms and add them to my legs?'*

*'If you break your streak Duo will break your limbs'*

*'I'm going to girlboss my way through Sophocles'*

*'Life is a slap in the face'*

*'If your ear falls off I'll pay for a new one'*

*"I don't blame you, my knees are gorgeous"*

*@SHHS*

*Overheard*

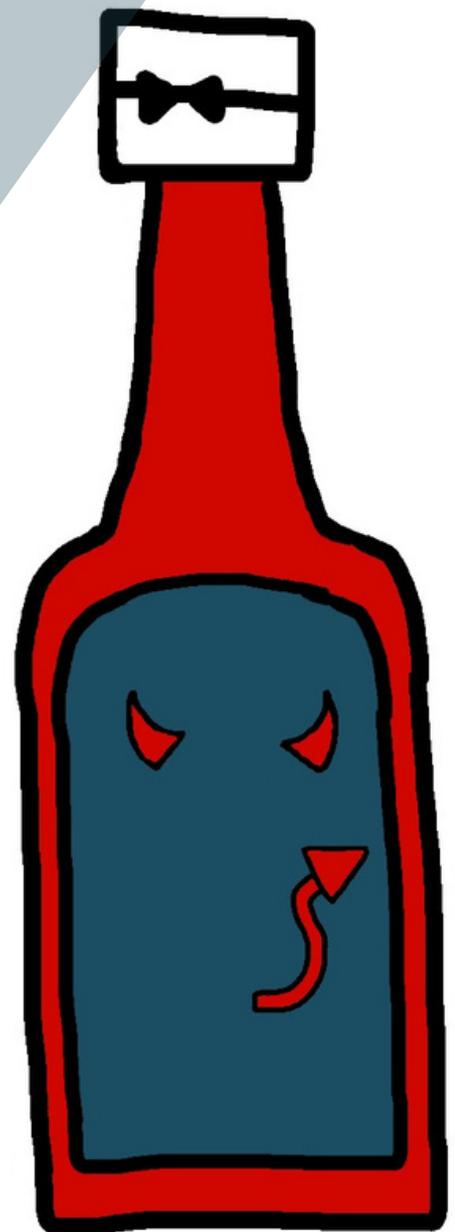


# KETCHUP

## A SMALL DEBATE

OR

Ketchup - is it the devil's sauce or the holy grail of condiments? It really seems to be a topic that sparks debate. I myself am a ketchup user, (in moderation) usually with fried potato or fish items. I will unashamedly admit that ketchup is perfect for livening up a bland chip or boosting the taste of an already delicious hash brown. But, let me be clear, in no way am I condoning the evil ketchup enthusiasts who like to squirt ketchup onto every edible surface, mostly - I think - to watch the spectator's face fall in horror as they eagerly devour their cursed creation. Nor am I vehemently against ketchup, flinching at the sight of this red dipping sauce, singing its evils to all who'll listen. Even as someone who has a love-hate relationship with vinegar, (I love it on crisps and in food but hate the smell and taste of it alone) I like it in ketchup. Yes, ketchup is a mishmash of different flavours and items that hardly tastes of tomato, but that's what makes it so special. A harmonious mix of sweet, sour and a little bit of something else, that provides flavour and moisture to a dish. Well, that's what I think, and I can respect your distaste if you can respect my tastes. Ketchup on eggs however, that's a different story...





lost in translation



It's safe to say that in the first years of learning a new language, many of us have experienced the panic of frantically scribbling down the final lines of a forgotten French essay on mes loisirs, or, (an MFL department favourite), a Spanish essay on las vacaciones, just minutes before the bell rings for period three. Every hastily scrawled word grows less legible, whilst you distractedly grapple with pangs of mourning for the sacrificed canteen cookie you had promised yourself. In frenzied moments like these, we have all, at some point, conceded and turned to Google Translate for a sentence or phrase. But just how reliable is this 'multilingual neural machine', used by half a billion people every day? And, in years to come, could Google Translate make human translators obsolete?

If you have ever wondered just how Google Translate works, it does so by scouring an enormous database of translated material, whilst searching for linguistic patterns and measuring the frequency of word pairings between languages. Interestingly, three of the principal sources for the gathering of the gathering of its data are the Bible (since it has been translated into 700+ languages around the world), documents from the UN and the EU, and

surprisingly mystery novels, too. When a foreign language text is entered, the site first translates the text into English, and then switches into the requested language, using its many pairings.

It should be acknowledged that, in spite of people's qualms about it, Google Translate can be a facilitating and enabling site. It offers free, rapid and relatively accurate translations, and unlike human translators, the site is available to its users 24/7. What it lacks in accuracy, it compensates for with its speedy translation skills. When it was first launched a decade ago, Google Translate only supported translation between English and Arabic; now, the number of languages has grown considerably, including languages such as Luxembourgish, Persian and Zulu. If you were to judge solely by this seemingly diverse selection of languages I have just mentioned, you might be quick to assume that Google Translate is a very inclusive and representative site. But in truth, more than 7,000 languages exist in the world, 4,000 of which have written scripts. Google Translate, however, is only able to translate just over 100 of them (a meagre 2.5%), reflecting the lack of representation and its Eurocentric focus.

Even if Google Translate were someday equipped to translate every language, what it vitally lacks is emotional intelligence, cultural awareness and sensitivity that is situational. This can be seen in lots of foreign words which are untranslatable from their language, since there is no existing equivalent in English. For instance, if you type into Google Translate the Spanish word *sobremesa*, you are given 'desktop' or 'on table' as its literal translations. Although accurate in some contexts, these translations have robbed the word of its cultural meaning and significance. The concept of *sobremesa*, is the time spent together after finishing a meal, to relax, share stories and jokes, drink copas and enjoy each other's company. This is a beautiful part of Spanish culture, but its resonance, like that of many other such customs, is greatly diluted in online translation. Another such example is the Swedish word *gökotta*, which refers to the rather wholesome practice of waking up at dawn to listen to birdsong. In this case, Google Translate offers no translation at all, although perhaps leaving the word untouched is better than a mistranslation which alters its essence altogether.

Each language has a distinct individuality, shaped by cultural influences and the idiosyncrasies, of an every-changing society. A true understanding and feeling of immersion within a culture isn't attainable vicariously, with Google Translate as the medium. These things require human skills – whether they be hearing and interpreting the inflection of words, observing the emotion with which they are spoken, or recognising the context.

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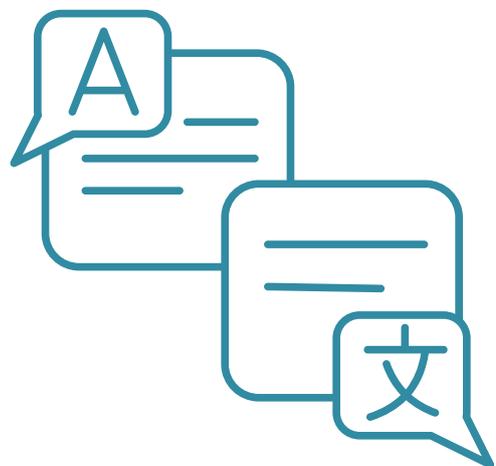
## The limits of my language are the limits of my world

- Ludwig Wittgenstein

”

It is possible that one day in the future, artificial intelligence will have the capacity to seamlessly capture the nuances of culture, emotions and context in translation. But this can only occur once the 'brains' which fuel machines have developed a receptivity to feelings and have harboured experiences, in a way mimicking us and our mannerisms. For now, merely being human initiates the deconstruction of the daunting language barrier.

In an increasingly interconnected world, the ability to understand a foreign language is truly invaluable. At its core, it offers us an enriched understanding and connection with people different than us, through the words that bear the past, present and future of a culture.



Written by Vrinda, Y12



# WHY YOU SHOULD GIVE DUOLINGO ANOTHER CHANCE

A disclaimer: no, I'm not sponsored by Duolingo and yes, I do accept that the slightly sinister threats of what will happen if you don't practice Spanish can leave you waking up in a cold sweat. However, putting all of that aside, isn't it actually an amazing resource? I constantly hear comments about how the ads suck, it's not a good tool and the options are limited. That's why I've come here, as Duo's representative, to tell you why I think you should give it another chance.



Firstly, let's address Duolingo plus. Ads are annoying on any platform, but isn't it fair that a free educational app has to get money from somewhere? If you're looking for a long-term commitment, I think that the plus version is worthwhile as it makes language learning far easier when you don't have the threat of running out of hearts and having to restart lessons. But the free version can also be a great solution! The main functions of the language are still there, and you won't miss out on any techniques or skills.

A common misconception about Duolingo is that it only teaches you a language on a shallow surface level and if you're looking to learn a language properly, you would be better off buying some textbooks and moving abroad. Hopefully you're not expecting the app to make you completely fluent in any language, but there's actually a lot of grammar that it has to offer.

Whenever you start a new module, a 'tips' option comes up above starting a new lesson and if you click it, you'll find loads of verb tables, language rules and information about pronunciation, all tailored to your specific language. Languages with a different character system, like Hebrew and Mandarin also have a separate tool where you can test yourself on the alphabet with only a few letters at a time.

Whenever I bring up the dreaded name of 'Duolingo' at home, my brother will rejoice in the opportunity to complain about its gamification. "It's forcing you into an endless addictive cycle!" he'll exclaim, dejectedly stating that "everything it does is only to keep you coming back!"

One of his frequent examples of this is the well-known 'streak', which updates every day you use the app. I've frequently reminded my Dad that I hold more language-learning weight because my streak is a few hundred days longer. If you want to invest your life's work into mastering a language, you can do so by paying for the in-app currency of 'gems' to have more time in the challenges; buy streak 'freezes' which allow you to maintain a high streak without having to practice every day or even buy Duo (the mascot who guides lessons) various outfits to wear!



However, having that sort of status and commitment isn't the main reason that most people use Duolingo.





In the end, it's still just a language learning tool, and those people aren't going to learn the language any faster than you are; even if their Duo wears a tux!

Another way of showing status and prestige on Duolingo are the 'Leagues'. Leagues are essentially one more tool to hook people in. You start in the lowest league, the 'Bronze League', and are placed in a group of around 30 people. You will have to gain more points than the majority of your group in order to either get promoted or demoted to another league at the end of the week. Duolingo uses AI technology in most of its features so it's likely that some of these people might be bots, or are at least specifically filtered to encourage you to practise more as you're so close to overtaking one of them.

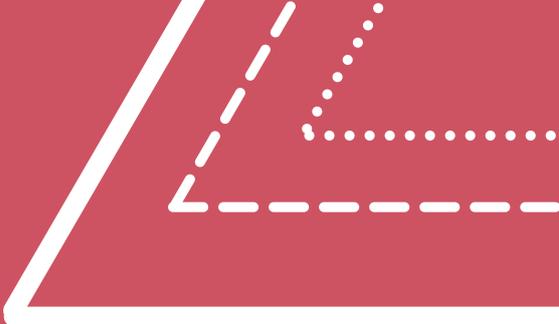
An advantage to Duolingo over other apps is that it can accept feedback. In the discussion forums mistakes in the questions can be flagged and lead to things being looked into and changed. This also contributes to Duolingo being regularly updated and ever-growing, which is important for any business, but especially for one that is all about languages which are constantly developing and changing.

Finally, in the 'stories' function where you can follow discussions and conversations between people to practice your listening skills, many characters are shown to be LGBTQIA+. These stories then follow their romantic relationships in a way which doesn't focus on their sexuality. It may only be a small step, but hopefully in the future more apps will also include this kind of representation!

Putting the slightly-menacing green bird aside, the app naturally isn't for everyone. However, even if I've dispelled just a few misconceptions about Duolingo to you, I consider my job done.

Written and Illustrated  
by Amalie, Y10





# The Enduring Appe

A triangle, the all-seeing eye, goats, and pentagrams. While this may seem like a list of random words, according to conspiracy theorists they are actually all signs of the Illuminati, a group of “enlightened” individuals secretly behind many of the major events of the past 200 years. Believers attribute events such as the French Revolution and the assassination of John F Kennedy to the group, and also claim that several leading celebrities of today are members. Other popular conspiracy theories include that Lizard People rule the world, that the moon landing was staged and that the COVID vaccine contains a tracking device. But the appeal of the Illuminati is unique in lasting for over two centuries, and it shows no signs of diminishing.

The group was founded by Adam Weishaupt, a German philosopher and professor, in Bavaria, Germany, in 1776 with the aim of educating members,

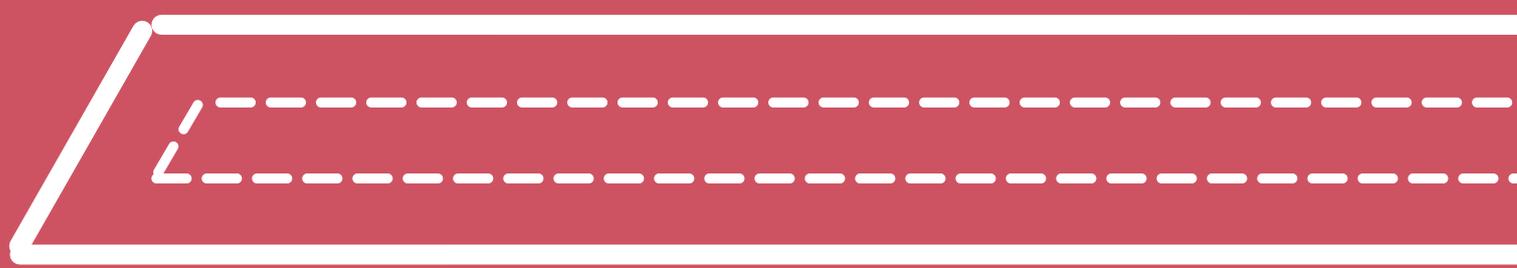


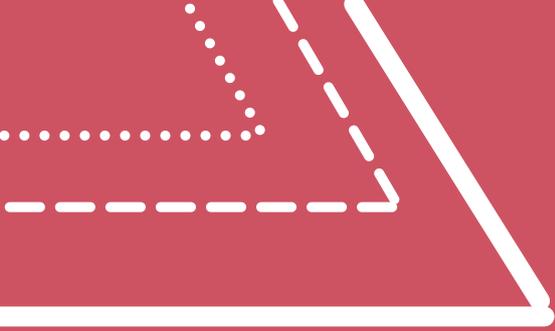
sharing the supposed “enlightenment” he possessed.

In terms of structure, the group was hierarchical and featured many mysterious rituals and codes. At the peak of the Illuminati’s operation their influence was said to spread from Warsaw to Paris and from Denmark to Italy, with over 2,000 members. However, in 1785 there was a ban on secret societies in Bavaria that supposedly ended the group.

Since then, there have been no official mentions or records of the Illuminati, which makes it intriguing that 15% of American voters in 2016 said that the group was real. Furthermore, an illuminati Facebook page has over 3.4 million “likes”. Of course, a truly secret society would make sure to hide its tracks!

However, just because the Illuminati disappeared, people did not stop believing in its existence. In 1798, US President George Washington wrote a letter saying that the US





# al of the Illuminati



had avoided the threat posed by the Illuminati, and Abbe Augustin Bernard attributed the French Revolution to the group, stating that by infiltrating institutions like the Freemasons the Illuminati had gained access to the French elite and overthrown the monarchy.

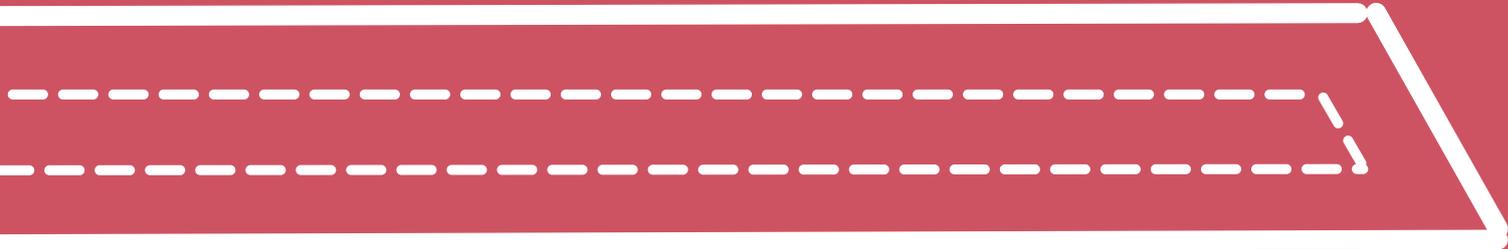
More recently the myth of the Illuminati has been revived and popularised in literature. There was the “Illuminatus Trilogy” in the 1970s, and then Dan Brown’s “Angels and Demons”, written in 2000. There have also been claims that many celebrities are members, often due to accidental symbolism that conspiracy theorists take as proof. For example, eye symbolism in Adele’s albums has led to claims she is part of the group.

Furthermore, when discussing the Illuminati, it is impossible to not contrast the name, meaning “the enlightened ones”, and those people who think the group still exists. Their belief is the opposite of “enlightened” as they attribute current events to a centuries-old group.

When Jay Z makes a triangle sign with his hands to represent his record company, it does not mean he is part of the Illuminati. In fact, the singer has categorically repudiated these claims. Likewise, Kanye West called speculations that he was also a member “ridiculous”. However, the more these celebrities deny their involvement, the more convinced conspiracy theorists become of that involvement. This leads to an endless cycle of accusation and repudiation that only reinforces the belief of the theorists!

The continued belief in the Illuminati shows how many people want to believe that a small, secretive group is really controlling the world, in the complete absence of any evidence to support that view. And this tells us more about those people than it does about any 18th century Bavarian philosophers.

Written by Madeleine, Y12



# Art in A

The topic of art in activism was revealed to me recently when I went to see Jennifer Packer's exhibition in the Serpentine: 'The Eye Is Not Satisfied with Seeing.' It was a collection of paintings of people, flowers, and scenes. For example, the painting 'Say Her Name' depicted the bouquet that might have been on the grave of Sandra Bland, a 28-year-old black woman who died in jail after being stopped in traffic. Although her face is not outrightly shown in the painting, the dark room contrasting the isolated brightness of the flowers is reminiscent of a funeral and instils a nonetheless powerful grief in the viewer.



'Say Her Name', 2017  
*Jennifer Packer*

The colour palette overall is vivid yet sensitive, with rich shades of red, blue, and illuminating yellows. A lot of her artwork contributes to the Black Lives Matter movement; she depicts black people she knew, admired, or thinks deserve to be recognised in her paintings. She manages to create art in a way that is both beautiful and meaningful. The brushstrokes flow smoothly but also can easily seem blurred and unfocused, with the only prominent feature being something like the knees of a figure, the only thing stopping the person from fading into the background. It may symbolise how black lives are often ignored in society, or they are forced to blend into the background and stay invisible. "My inclination to paint," Packer has said, "especially from life, is a completely political one. We belong here. We deserve

to be seen and acknowledged in real time. We deserve to be heard and to be imaged with shameless generosity and accuracy." Her work is part of a movement of art whose meaning is part of social change or activism and from which I, and many others, are inspired by.

Art is a particularly useful and inclusive medium because it is a craft that dates back millennia and can be interpreted by anyone, you don't have to be literate to see and connect with it. At the peak of the Black Lives Matter movement, street art (graffiti, murals, and more) began popping up around not just big cities like London but across the entire world. Seeing the faces in the murals was powerful and helped people who maybe didn't have the experience



'Tia', 2017  
*Jennifer Packer*

# ctivism

to really connect with the movement or if they just were not informed enough to feel passionate about inciting change, they felt more of an urge to do so. This is just one of the countless times artworks have contributed to societal reform, having been used to make political statements from the anti-slavery and civil rights movements to depicting the effects of climate change.



'The New Advocate', 1913  
*William Dyson*

Another example would be during the suffragette movement as one of their methods of protest was destroying statues that represented male supremacy. Art schools in Britain at the time didn't expect women to make a living from fine art, they could attend school but could not become 'artists' as that was considered a male job, so women were encouraged to learn a 'domestic art' like sewing. Schools for this became a hub of politics where women discussed politics and formed debate societies; they realised that the art they were resigned to making could be used to their

advantage to aid their cause. Some started to work for the suffrage movement, creating postcards and imagery for distribution, including political cartoons like the one opposite which was made in response to the death of Emily Davidson. Many banners like the one below were also created and used on marches, helping raise more support for the movement.



Suffrage Banner, 1910-1912  
*WSPU Hammersmith Branch*

This kind of art hinges on symbolism, which can greatly help a piece lead you to believe something or feel a certain emotion through colour and imagery. For example, white usually symbolises innocence and purity, so depicting your country's army, for instance, in white would lead the viewer to believe them to be more innocent and worthy of support whilst also highlighting the villainy of the opposing side. White is often used in religious imagery for similar reasons. In recent years, art has become more accessible with the rise of digital art, the use of touchscreen devices to create said art and sharing or even selling it on social media platforms. Art being on the internet makes it more popular and lets more people see and understand the imagery of social change. Art has really managed to grasp society and encourage activism and it will hopefully continue doing so in the future.



# Ross Laycock: the name Félix González-Torres will never let us forget.

A year and a half ago, I stumbled across a video that had randomly popped up on my feed about a piece of art called *Untitled (Perfect Lovers)*, by Félix González-Torres. In the video, a young man spent a minute or so describing why he loved this piece and showed pictures of some of the other pieces by this artist – I stared at them, entranced, and wanting to understand their story. I blinked as the video ended and quickly took a screenshot of the title and artist before moving on with my day; and this screenshot slowly rotted in my camera roll until I came across it again, a couple of months later. I soon ended up deep in Google researching the artist's different pieces, and then went on JSTOR, consuming every review I could find, to learn about this elusive, gripping artist.

The work I find most powerful and arguably one of his most famous pieces is *Untitled (Portrait of Ross in L.A.)*, an installation that premiered in the Art Institute of Chicago and has since been replicated in several galleries across the world in various different styles.



*"Untitled" (Portrait of Ross in L.A.), Félix González-Torres 1991*

González-Torres' instructions were simple, but particular: there needed to be candies in various coloured wrappers, the weight of which had to be 79kg, the overall dimensions should be allowed to vary, .

but usually should look like a spilled pile of candies in a corner of the room. All viewers were encouraged to take a piece of candy, which they often and enthusiastically did

79kg was the weight of González-Torres' long-time partner, Ross Laycock, when he died from HIV in 1991; he had lost 20kg by then, due to the virus. Laycock was the muse for this work, and for many of his other installations, (if that word can even do justice to what Laycock was in González-Torres' art, since he was his art). Each time a viewer goes in and takes a sweet, they act as the virus did, sweeping through Laycock's body, partaking in his deterioration apathetically. It brings us directly into the piece and allows us to respond emotionally to it – whether this is through guilt, grief, or understanding just how unconditional his love for Laycock was. Clearly through his act of reproach, you can feel González-Torres' anger, saying: look what you did to him. Every single time the installation is on show, the sweets are taken, until there is not a single one left – a tragic but deeply moving reflection of Ross Laycock's passing away.

The piece is political and allegorical and cleverly made in order to duck the censorship laws put in place by the powerful conservative politician, Jesse Helms, who denoted many pieces of art as "obscene" and pulled the funding. Exhibitions like Robert Mapplethorpe's, another young gay man speaking out about the HIV/AIDS crisis, also got pulled after political pressure. His pieces used topical photographs, that were abrasive and meaningful, and told the world about the illness that was affecting and killing so many people at the time. Due to this, González-Torres' aim transitioned to subtlety, since getting his work into a museum where people could see and understand it was more important than confronting people directly with the true message. His pieces often ended up as political, although he often remarked that even though it may not be his intention, his life was a source of politics, as he went against the grain of what someone "should be" by being gay.

Once the history behind the piece can be understood, it becomes poignant within the LGBTQ community and to those who may have not understood what was going on at the time, and for others, a moment of shame for those who ignored the suffering of the people around them, a spit in the face at the governments who killed them.

In this piece, the museum must replace the candies after they're taken – a symbol of loss but also of the eternity of their existence through the artwork. Or, it may have just been González-Torres, wanting someone to remember them as lying together, dying, and needing to be seen.



*(Untitled) "Lover Boys", Félix González-Torres 1991*

González-Torres continually escaped the effects of this censorship by his arguments in rebuttal, since they could not argue that a piece is “destructive” or “obscene” when it is, essentially, just a pile of candy. His use of minimalism made his work timeless, forever relevant in remembrance or new meanings it could take on in future. His work will be evocative and powerful for the years to come as we can already see, as it has been 25 years since his death at age 38, (five years after his partner), also of HIV.

González-Torres’ work, whilst about raising awareness of an issue the U.S government almost exacerbated through its completely uncoordinated and insufficient response, is not solely about that; it is also about grief and loving someone as they die. His previous work was Untitled (Lover Boys), which he made as Laycock was dying. The weight of the pile of candies, this time all of the same colour, was 161kg – equal to the weight of them both when together. The fact that Torres always chose to use candies to represent the body of his partner is in itself a display of the absolute sweetness of the love they had.

The pile is usually placed in the middle of the room, almost mimicking a bed, as it spills across the floor. By doing this, the viewer can envision them, and is able to feel the emotion of it and grieve all those people who were dying slowly in their beds, fighting the same battle as Ross Laycock.

He has forever immortalised his partner and not let his name, like so many others, become hidden in a flurry of death statistics, but instead at the forefront of an illustration of the love that was more prominent than any condemnation or fear. The year this piece was created, 1991, was the height of the HIV/AIDS epidemic in the U.S, and it feels like a message in an age of censorship: see me, see him and look at what is happening. It is a work expressing his grieving, his admiration, a grave commemorating his partner. He said in an interview with Ross Bleckner, that:

“ The wonderful thing about life and love, is that sometimes the way things turn out is so unexpected. I would say that when [Ross] was becoming less of a person I was loving him more. Every lesion he got I loved him more. Until the last second. I told him ‘I want to be there until your last breath,’ and I was. ”

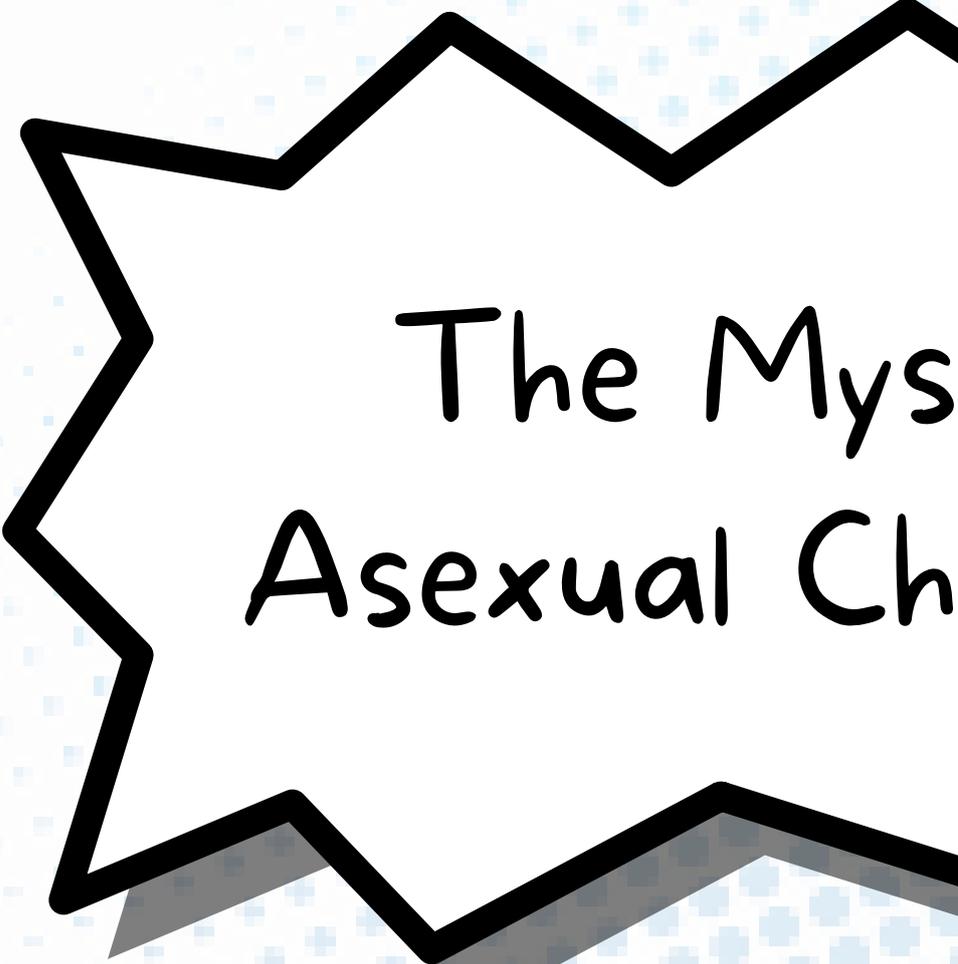
In 1939 the Archie Comics, a popular series, was first released. It focused on the attempts of two high school girls to date the world's most libidinous ginger. With a multiverse rivalling the complexities of the MCU, the series is still being produced to this day with multiple spin offs. In 2015 there was an updated version with new perspectives on the classic character, Jughead, who has been in the comics since the 22nd issue, pointing out the absurd nature of Archie's shenanigans. Jughead – like most side characters - can be boiled down to easily digestible traits: wears stupid hats, sarcastic and doesn't like girls. This final trait is important to Jughead's voice of reason and foil to Archie's womanising ways.

However, this accidentally created the asexual blueprint. Incredibly vocal in his disinterest of all things cheesy and quick to reject any advances, he is 'in no way a romantic!' Jughead 'stands by [his] ways as a lover of food only'. His implied asexuality and aromanticism are so obvious that the glorious 'Jughead' comics have him being explicitly asexual, and it is implied that he is somewhere on the aromantic spectrum, gifted to us by the benevolent Archie gods for two years.

And then 'Riverdale' was released.

I am convinced that this Jughead is an imposter, and with all of the poorly planned plot twists, I wouldn't be surprised if he was. There is a clear disconnect between the original and the fake. On a surface level they should be identical - they both wear stupid hats! It should be impossible to mess up the simplicity of the 40s comic. Betty's blonde, Veronica's popular, Archie's a jock and Jughead doesn't get dating. By changing this, he becomes a completely different character.

His whimsical sarcasm transforms into



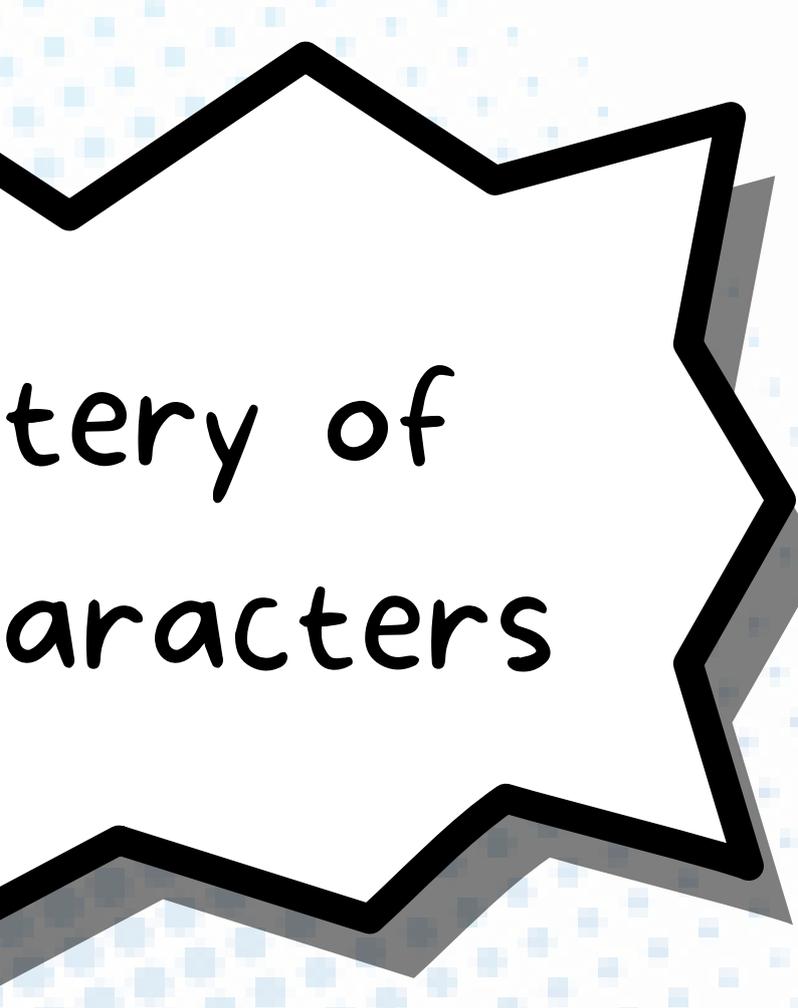
# The Mys Asexual Ch

brooding and dry silences – creating a shallow quiriness. Jughead isn't some misunderstood bad boy, he's an asexual punk in a hat. What was the point of this substantial change? The drama.

This change created a broken bad boy to fulfil the dreams of their target teenage audience who don't care about the original Jughead. They took the unique weirdo, ripped him from his context and removed his essence - leaving a broken shell of a character in the body of Cole Sprouse. Why? They had to give Betty another option.

To a degree this makes sense. In alternate universes all the main cast have their backup partner, but Betty never really had anyone substantial beyond Archie and Veronica (I'm not kidding). But Jughead? They are close friends, but that's it. With a wealth of extra characters to choose from, they could have given her anyone else.

The misrepresentation of asexual characters is echoed in The Big Bang Theory. Sheldon is written as an aspec (on the asexual or aromantic spectrum) character by fluke. He 'find[s] the premise of coitus ridiculous and off putting', struggles to conceptualise dating beyond a practical level and is painfully oblivious to any advances. Moreover, he is written to encompass every harmful asexual stereotype to ever be conceived. Asexual stereotypes are rooted in the idea that there is something inhuman or undeveloped about the lack of sexual or romantic attraction. This results in asexual characters being presented as dehumanized, robotic, lacking in empathy or accompanied by some curable illness. In The Big Bang



# tery of aracters

The Big Bang Theory, every single trait is applied to Sheldon, for 'comedic effect'.

After six seasons Sheldon is thrown into an inconsistently written relationship. He is constantly mocked by his 'likeable' friends, being compared to an 'emotionless robot but his girlfriend has caused him to transform into a real man'. Yikes.

However, over time there has been progress. During the five years that media statistics have included reoccurring aspect characters, there has been a total of four! One being the illustrious Todd Chavez - loveable goof and friend of the sad horse on Bojack Horseman. He too is a stupid hat sporter, so in my mind this is either an homage to Jughead or the new aspect identifier. Todd is hysterical proof that it is possible to make jokes about asexuality without making asexuality the joke. One of my absolute favourite episodes has a plot line of Todd going to increasingly absurd lengths to convince his girlfriend's parents that they are not an asexual couple, the deeper commentary being the ridiculousness of society's interest in someone else's sex life.

Something I greatly appreciated was the writers' ability to keep Todd a fully-fledged character. His sexuality revelation doesn't come from nowhere, it's implied from the second season and at first, he is uncomfortable with the label. But his sexuality remains important without becoming his singular

personality trait. He is presented as wacky and intelligent, providing levity to an otherwise dark show.

There is a concerning lack of asexual exposure on television and in real life. After decades of characters being bullied for traits that are completely healthy, it's sad to realise that until three years ago there was no other point of view being shared. We haven't come that far (maybe even gone back) from the first ace coded character on 'Gilligan's Island' in 1967 and that Perry the Platypus being technically confirmed as asexual was exciting news. I'm not over the moon to hear that in an era where we are making huge strides in queer representation there has been such a disappointing output of aspect individuals, just because it's 'hard' for non-asexual audiences to relate to. There isn't much drama that can be produced from it, so it isn't a 'marketable' sexuality. Queer identities on television preach to the audience the singular message that 'love is love', focusing so hard on the existence of attraction that it becomes much harder for any aspect representation or any identity that is even slightly outside of the norm.

Despite this, there is still hope. Modern feminist films have been focusing more on the fulfilment found in nonsexual relationships and the disconnect between the previously fused romance and sex. This has helped crack open the door for the exploration of aspect identities and characters. Television needs more Todd's, and maybe, in fifty years, there will be.

Written by Eléa, Y10

# Advertising at Christmas

What comes to your mind when you think of Christmas? Is it trees wrapped in tinsel and sparkling lights, or presents and bright red wrapping paper, or even Michael Bublé songs? These well-known traditions seem to have been around forever, but what is often not recognised is how advertising has shaped the way we spend our holiday.

Christmas has not always been about gifts and colourful baubles; instead originating in Rome and becoming a major Christian festival in the 9th century. Initially, Santa Claus was based off of a monk named St Nicholas, who lived around 300 AD, near modern-day Turkey. Although St Nicholas was admired for his piety and kindness, he was very different to how Father Christmas is depicted today. For example, although he did have a beard, he was most likely a slim person of colour who wore green robes. Advertising has altered his appearance over many years, with many notable holiday marketing campaigns, such as Coca Cola's, presenting Santa as being dressed in red with a rosy face and white beard. Some people argue that this image of Santa is not new; however, there is no doubt that these advertisements have been very influential around the world, publicising a new image of Father Christmas.

The way we celebrate the festive season has also been affected by advertising and marketing. People from different cultures and religions have started joining in the festivities, as technology has enabled adverts to have an ever-increasing international reach.

In Japan, even though only 1.5% of the population is Christian and so it is less of a religious holiday, there are still some Christmas celebrations. For example, an estimated 3.6 million people in Japan eat KFC during this time and make reservations weeks in advance to guarantee a chance to have "Kentucky for Christmas". This new tradition has emerged due to a successful marketing promotion in 1974 by KFC, in which their white-bearded mascot was decorated as Santa.

Not only have new traditions been created, but old ones have also been changed. Gift-giving is an ancient practice, but advertising and consumerism have allowed it to escalate and take on new meaning. Part of this is reciprocity, which suggests that when we receive a gift, we feel compelled to return the gesture, in this case with a Christmas present. Therefore, we feel more inclined to buy presents for others during the festive season. In 2017, people in the UK spent, on average, around an extra £500 in December, encouraged by holiday sales to "spend that little bit more" at Christmas time. Following the lockdowns and subsequent increase in online shopping over the last two years, retailers are trying to get people back out onto high streets to form the festive atmosphere again. However, with the convenience of shopping online and reduced tourism, will there be as many people back on Oxford Street as there were before the pandemic?

Nowadays, we spend the holiday encircled by lights, presents and adverts which can, subconsciously, influence our 'wants', convincing us that we need to try this year's 'exclusive Christmas selection!'. As advertising and marketing continue to develop the festive season, you may wonder what the next holiday tradition will be.

By Mila, Y11





# Weird and Wonderful Christmas Traditions

When you think of Christmas, it's often windows adorned with bright decorations, shops filled with sweet treats and the annual pantomime trip that spring to mind. But other countries have some very different and sometimes unusual customs.

Let's start with Austria. If you are in Austria during the holidays, look out for the ghoulish creature called 'Krampus', the evil co-conspirator of St Nicholas who is said to wander the streets in search of naughty children. During December, you can expect to see terrifying masked figures out and about scaring children and adults alike.

Japan is a second country that embraces Christmas rituals. Back in 1974, the fast-food restaurant KFC released a festive marketing campaign in Japan. The seemingly simple slogan "Kurisumasu ni wa kentakkii!" (Kentucky for Christmas!) spawned a national tradition that still thrives to this day. Although Christmas is not even a national holiday in Japan, families from all over the country head to their local KFC for a special Christmas Eve meal. Expect to pay a higher price for your fried chicken on this special occasion, as a KFC Christmas dinner is around 3,336 yen (£20).

South Africa is another place that bypasses our traditions of mince pies and turkey and enjoys fried caterpillars during the holidays! This may seem like one of the weirdest traditions around, but these caterpillars aren't just the common varieties you find in the garden. South Africans feast on the Pine Tree Emperor Moth, or Christmas caterpillar, which is covered in very festive hues - giving all who swallow it a little extra luck for the coming year.



Finally, Germany also has an unconventional tradition related to the iconic Christmas tree. The Christmas tree tradition around the world today is believed to have started in Germany back in the 16th Century, so it comes as no surprise that the Germans still have some interesting customs relating to these trees. One of these is to hide a pickle somewhere within the branches of the tree and give a gift to whichever child in the household finds it. Some claim that the tradition may not be German after all, with one legend saying that the Christmas pickle originated in Spain. Supposedly, two young boys were held as prisoners inside a pickle barrel and Saint Nicholas rescued the boys and brought them back to life!

Whether you celebrate Christmas or not, it is always fun to see what different customs there are around the globe, showing how this holiday season has been adapted to become so much more than just presents and Santa. During this festive season, why don't you try and create some of your own new ones!





# SUSTAINABILITY AT CHRISTMAS

The festival of Christmas is celebrated by over 2 billion people around the world. Christmas traditions, both religious and secular, are often long standing and treasured. Christmas is considered by many as the highlight of the winter months, a chance to see family, exchange gifts, watch cheesy films, bake biscuits and cakes, eat to your heart and stomach's content, drink and be merry. Christmas is a time of hope, love, light, gratitude, and goodwill.

However, Christmas celebrations have major negative impacts on the environment. During the holiday season, the UK as a nation buys 80% more food than during the rest of the year. This includes over 370 million mince pies, 250 pints of beer, and 10 million turkeys. This overconsumption of food, with people buying far more than they need, results in around 230,000 tonnes of food waste. Food waste that ends up in landfill produces a large amount of methane. Methane, a greenhouse gas that has over 80 times the warming power of carbon dioxide, contributes to global warming and climate change. Global climate change is already causing observable impacts to our planet including the melting of ice caps, more frequent and intense droughts, heatwaves and storms, and the extinction of species.

Furthermore, the use of wrapping paper and packaging at Christmas also create an excess of waste.

In 2016, the UK threw away 227,000 miles of wrapping paper, as well as 4,500 tonnes of tin foil, and 125,500 tonnes of plastic packaging. Greenpeace have stated that 1 kilogram of wrapping paper emits 3 and a half kilograms of greenhouse gases during its production process. Plastic waste can take up to 1000 years to decompose in landfill. Rivers and lakes near landfill sites are being polluted as chemicals leach into the soil and groundwater, leading to the death of aquatic life. Landfill sites also negatively impact biodiversity as the creation of the sites involves large areas of land having to be cleared, leading to habitat loss.

Moreover, one significant debate at Christmas is about which is better for the environment, a real Christmas tree or an artificial Christmas tree? The high demand for real trees – in the UK more than 8 million are bought every year – raises concerns that the land used for the growing of these trees reduces the amount of available land for agriculture. Artificial trees, however, have a greater negative impact on the environment because the primary material they are comprised of is plastic. Unlike real trees which are biodegradable, artificial trees often end up in landfill or are incinerated. Artificial trees are often made abroad in countries such

as China, South Korea or Taiwan and then shipped thousands of miles to the UK. These air miles add to the sizable carbon footprint of artificial trees – around 40kg of greenhouse gas emissions.



## SO, WHAT CAN YOU DO TO HELP MINIMISE THESE IMPACTS?

There are plenty of ways to enjoy your Christmas celebrations whilst also being environmentally friendly. These top tips for a sustainable Christmas are comprised from organisations including WWF, The Soil Association, and Forestry England:

- **Use LED lights on your Christmas tree.**  
They are longer lasting, sturdier, and use less energy.
  - **Use wrapping paper and cards made from recycled or FSC-certified paper.**  
FSC-certified paper has been produced in an environmentally responsible manner.
- Also, try to avoid tape and plastic ribbon as these cannot be recycled, and instead try out some inventive tape-free wrapping techniques.
- **Make your own decorations or upcycle old ones.**  
This helps to cut down plastic use. For example, shop bought tinsel is unrecyclable.
  - **Use FSC-certified Christmas crackers or make your own reusable ones.**  
This helps to reduce waste, as many crackers are not recyclable and the toys inside are often made of plastic.

- **Eat seasonal food.**  
This reduces the energy that might have been spent growing food out of season or shipping food to the UK.



It is still important however, when purchasing a real Christmas tree, that you make sure that it is FSC-certified. FSC-certified trees are grown as part of a well-managed forest, minimising the use of pesticides, and protecting forest plants and animals. Also, remember to recycle your tree after Christmas. Many authorities offer a recycling service for trees so that they can be chipped and used locally. Alternatively, you can plant your Christmas tree into a pot or in your garden, and keep it for the next year.

- **Use up leftover food.**  
This helps to minimise food waste. The Soil Association has a selection of zero waste festive recipes that you can try out this year.
- **Wrap up warm in sustainable clothing.**  
To avoid fast fashion shop second hand and look out for organic cotton and wool.
- **Support your local independent shops.**  
Local produce is likely to have far fewer delivery miles, and thus less carbon emissions. Shopping locally also helps to support the local economy.
- **Buy fewer, better quality gifts.**  
This reduces the number of gifts going to waste. On average there are 70 million unwanted Christmas gifts exchanged in the world each year.
- **Gift an experience, or give an upcycled, homemade gift.**  
This helps to reduce the demand on physical resources. Good examples of sustainable gifts include, a charity donation, adopting an animal, or membership to an organisation or museum.



Written by Lydia, Y12  
Illustrations by  
Emily, Y8

# The psychology behind New Year's resolutions

Let me ask you a question. What was your resolution for 2021? Can you honestly tell me you managed to stick with it? I sincerely congratulate anyone who has been able to do so for the entirety of the year. New Year's resolutions are often seen as a way of people motivating themselves to pursue something new. However, when you think about the concept further it's actually somewhat meaningless. Over time it seems as though New Year resolutions have started to symbolise the turning over of a new leaf but in reality, they often do not fulfil this purpose. Contradictory to their empowering intention, New Year's resolutions can be seen as somewhat of an excuse for all those times it's been more convenient to do nothing about the changes we wish to make in our life. We begin the year inspired, the first month credulously believing we might actually form a habit, yet somehow over the year this degrades right back to where we started. The rise of challenges such as Veganuary that only last for a short period of time have proved that it's difficult to break out of a routine in the long term and confront something new on our own accord. It may disappoint you to know that science would describe this as a comfort zone.

Comfort zones can encompass anything from relationships and social interactions right down to the food you eat and clothes you wear. To put simply, comfort zones emerge when your activities and behaviours come together to form a consistent routine. They provide us with the easiest pathways to follow, as the reason that we often find ourselves sinking into our comfort zones is to minimise stress. Research has shown that knowing what to expect gives us with the belief that we are happier and more secure. This is one of the reasons less than 8% of people stick to their New Year's resolutions, a somewhat depressing figure. This isn't too difficult to understand however, considering that having feelings of safety, which is often associated with a lack of risk taking and change, are second in Maslow's Hierarchy of Needs, a depiction of the priority's humans takes from the basic physiological needs such as food and water, to reaching a state of self-actualisation, the desire to be the best one can be. Admittedly, whilst maintaining that comfort sounds ideal, it doesn't take long to come to the realisation that nothing is changing, and everything becomes easy. In a rather brutal but honest summary, there's a period of stagnation and lack of everything becomes easy. In a rather brutal but honest summary, there's a period of stagnation and lack of personal growth, drawing a parallel between those first few weeks of the new year in comparison to all the other months when the resolution becomes merely an intangible dream.

Contrary to many of our wishes, breaking out of our comfort zones isn't solved through motivational quotes on sunset backdrops that have become the most coveted iPad lock screens.

While this certainly would make life easier, the key to breaking out of our comfort zones is much more complicated. The psychologist Robert Yerkes identified that the key to breaking out of your comfort zone is in reaching optimal anxiety, which means having the courage to expose yourself to just enough stress to enable character building. The idea behind this is that you're not overwhelmed by stepping out of your safety zone, but you are uncomfortable enough to realise that perhaps it's not so hard after all. There are some simple ways to achieve this. Your new year's resolution for example could be deciding to do something slightly different every day. It doesn't have to be an immense task, even something as simple as daring to try the vegetarian option in the canteen a few times a week. Don't forget there's nothing wrong with taking small steps; when you start something new, wanting to immerse yourself completely into the task is common, but then soon you may run the risk of beginning to realise it's too much, therefore rendering your initial goal unattainable. Another final word of advice is to trust the decisions you make and remembering that adding some spontaneity to your life can be a good thing in an attempt to break out of our comfort zones.

To bring us back to my initial point, why not try to attempt something different this year. Instead of pinpointing an unrealistic goal, make it your resolution to push yourself out of your comfort zone. This could make sticking to your resolution simpler and who knows, you may surprise yourself with what you're able to achieve; and from there, you can only continue to empower yourself as you become more comfortable with challenging your own expectations.



- Leila N

# The day Cecilia met Mr Voke

Cecilia stepped through the doorway of the tearoom that her mum had just beckoned her into. Outside the shop hung a crooked sign which read 'Mr Voke's Tea Room', the paint curling languidly over the wood. She entered timidly, staying a foot behind her father at all times. She was greeted with a strangely anachronistic sort of scene with prim white tablecloths draping over the customers' tables and crockery made out of painted china. It was a scene out of a film that was set at least 100 years ago – a scene that could possibly have been salvaged from a time capsule. Her father had just spotted a family tree in the corner dating back to the 1560s. It had faded writing and the paper reminded her of the coffee-stained paper she had used for history assignments when she was little to give them a 'vintage feel'. It was a marvel, she thought, that some people are able to trace their family back that far. It was an unimaginable amount of time for a girl the mere age of 18. It was definitely...something else.



There was a man wearing a tweed jacket sitting in the corner of the room across from three others. She gathered from his air of ownership and affability that he was Mr Voke. She couldn't see him clearly but from what she could see he fitted the scene. He held an old-fashioned smoke between his teeth and there were certainly some abnormal shaped spectacles sitting on his nose. Above the hum of quiet conversation, the smell of freshly baked scones wafted into the air. It reminded her of her grandma, who would always have something cooking when she was visiting. Scones were her specialty. In the background a distant tick could be heard. Cecilia quickly located the source. It was a beautiful, mahogany, late-Victorian grandfather clock. Well... it would be to a well-educated antique dealer. But to Cecilia, who had yet to delve into the world of antiques, it was just a clock with an irritating tick.



Cecilia was certainly open to acquiring more knowledge even if it did concern clocks. It had always been a main goal of hers to discover. As she had justified taking a gap year to her parents, 'I want to travel! In fact, every single day I am overwhelmed with a need to travel. Everywhere and anywhere, always! I just want to be sure I see something.' However, she was always torn between the idea of capturing a moment versus experiencing it. Which is why when she found her hand reaching for her phone she hesitated, unsure if this peculiar tearoom was something the world should see or something a person should stumble across, perhaps by accident or when looking for something else. Something that one should experience without the use of photography or video and might then months or years later begin to question; did this really happen, or did I just make it up?

Cecilia stood there gazing curiously at Mr Voke and his three customers. It was like a revival of the past. There was a man and two women, all with white or greying hair or both. To her they were like little kittens that were not to be disturbed. It turned out that her mum had snapped a shot of Mr Voke with his tweed jacket anyway. The click of the shutter echoed, and her mum turned as if to go. She began to feel as if she were intruding on something and mutely followed her out. Before leaving the building, a guitar caught her eye. She loved guitars and this one was especially captivating with its odd colour and shape. The idea that there was some link between the odd tearoom and herself seemed to bring a strange sense of comfort.

# Why, Grumpy Cat?

Every year in August a Cat Video Festival takes place in Minneapolis, showcasing the best cat content creators from around the world. (The most recent one was online, and there are still recordings up on YouTube). This festival is to raise money for charity, but other funny cat videos have different aims. Grumpy Cat was a great example of this. She came to fame when her owner, Tabatha, and her brother posted a picture of her on Reddit saying she was called Grumpy Cat. Many people liked this, turning the image into countless memes, so her owner decided to post more. Soon she became an internet sensation and started going to pet competitions and other events. Though this made Grumpy Cat's owners famous, and rich, did she actually like being an internet star? Is it right to film a cat, just so their owner can join the "funny cat video" trend?

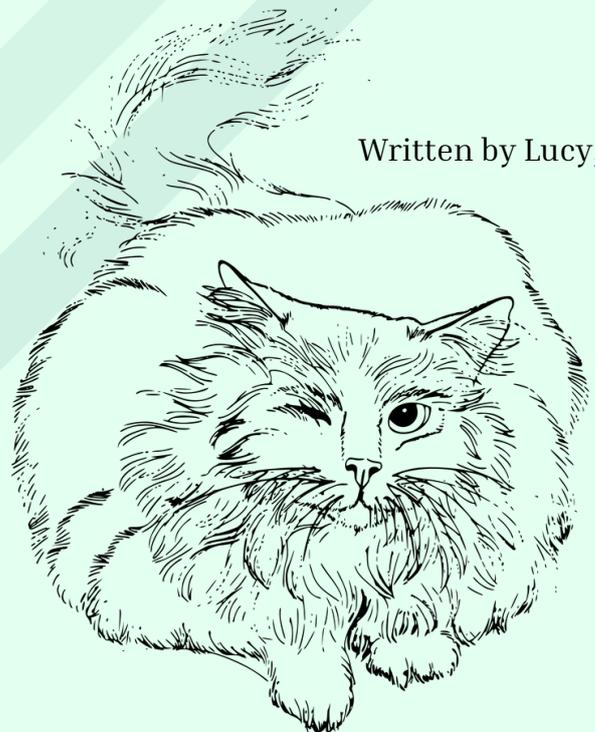
Many people film their cats doing silly things, like falling down the stairs, jumping into mirrors or climbing up the curtains, but they don't ever seem to stop and think about their cat. Some people film their cats doing things they do naturally, but other people force their cats to do things that they don't want to do. Pushing a cat into the bath is one thing people tend to do. This is clearly mean and no cat would ever enjoy suddenly being pushed around, just like any human, but people do it anyway. The problem is, these videos draw you in and suddenly you find yourselves watching ten hour versions of a five minute funny cat video.

Cruelty towards pets is clearly not ok but the big question is whether cats enjoy being the centre of attention or not. Cats are very dignified, they always lick themselves clean when they're not very dirty, this shows they are very proud and always like to show the best of themselves. So they might not be best pleased if they are filmed doing silly things. It seems clear that being the centre of attention is one thing and being humiliated for 'likes' is another.

Although some cats are livelier and more carefree, they still show some dignity. On the other hand, in literature, cats are always showing off. In T.S Elliot's poem, "Gus the Theatre Cat" Gus loves being the centre of attention and telling stories and in loads of his other poems cats are showing off about what they do best. T.S Elliot had cats of his own and he could be writing in relation to them, though this is fiction and living cats may not feel the same. Also, just like in Elliot's writing, cats have different personalities the same as humans do and one cat may enjoy being filmed while the other doesn't.

However, an interesting question is whether it is really the humans creating the cat videos that are at fault, or if the problem also includes the people viewing the videos. The more views the maker of the video gets the more money they earn, which encourages more people to video their cats. This may encourage more people to start being cruel to their cats and this may end up being the norm even though it is not a good thing to do. Even if cats do enjoy being filmed, I believe that it probably isn't worth being sucked into watching endless cat videos, no matter how oddly enjoyable we may find them.

Written by Lucy, Y7



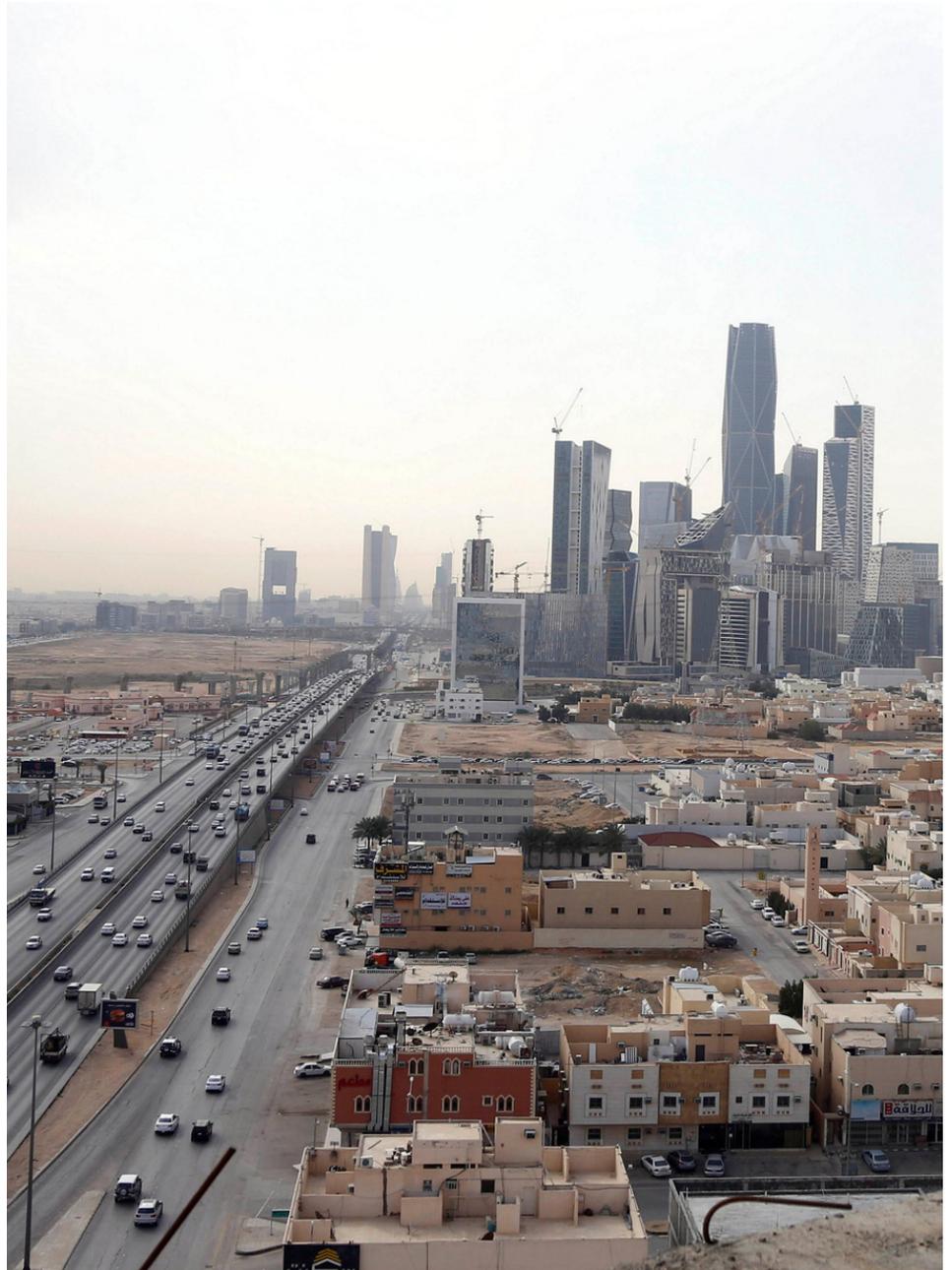
# NEOM: A perfect city?

What do flying cars, artificial moons, and robot dinosaurs have in common? Nothing, except that they're all bizarre science fiction ideas for Saudi Arabia's new futuristic city NEOM. Short for 'New Future', NEOM is a planned city in the dry and mountainous Tabuk Province of North-western Saudi Arabia that will cover an area greater than the size of Belgium. Outlined in the Saudi Vision 2030 project but with a completion date set for 2025, NEOM will be a hi-tech business hub and tourist destination to reduce Saudi Arabia's reliance on oil and diversify its economy. Not only that, but it will be environmentally and technologically advanced, powered solely by renewable energy and using AI. NEOM will be the first city of its kind, but alongside the enormous benefits, there are many issues and controversies. So will NEOM become a viable vision of the future or just another failed megaproject?

So why is NEOM the perfect city? Firstly, it is sustainable. The city will be reliant on 100% renewable energy, namely wind and solar power. 95% of nature will be preserved within the city meaning that habitats won't be destroyed like they normally are when deforestation occurs to make space for new cities.

All residents will be less than a 5-minute walk from a green space to encourage greater interaction with and enjoyment of the environment.

Furthermore, NEOM will be based on a circular economy, whereby products will be reused and recycled to reduce waste. Secondly, NEOM will be a global financial hub. It will be a cross-border city spread across Egypt, Jordan and Saudi Arabia, linking the Arabian Peninsula to Africa and West Asia. NEOM's location will therefore allow it to become an economic core that will





contribute \$48 billion to Saudi Arabia's GDP by 2030, showing the extent to which NEOM will boost the economy. Similarly to Dubai and Singapore, NEOM will be a free trade zone to encourage more foreign companies to invest and locate there.

Finally, NEOM will be technologically advanced. Artificial intelligence will constantly monitor the city to improve its citizens' lives, whilst robots will provide services and security. NEOM's design is revolutionary and unlike any other city. It will contain 'The Line', a 170km linear city without cars or streets. This futuristic city will be built in three layers; a surface level for pedestrians, and two underground levels for infrastructure and transport. With all services within a 5-minute walk, the only mode of transport will be a fast rail system, reaching speeds of 320mph.

But is this utopian vision hiding NEOM's failings? To begin with, many of its fanciful and bizarre technologies, such as a superfast train, don't exist yet. In fact, Elon Musk's Virgin Hyperloop train, currently the fastest in the world, has only just reached 107 mph. It's therefore doubtful whether the technology will be developed in time for NEOM's completion in 2025. Saudi Arabia's loss of money due to the

COVID-19 pandemic and the lowering of oil prices have also put the \$500 billion project in jeopardy. Many people argue that this money would be better spent investing in Saudi Arabia's existing struggling cities like Mecca and Jeddah, which still have inefficient drainage systems.



A large controversy surrounding NEOM is its treatment of the local people. 20,000 people in the Howeitat tribe, living for centuries in NEOM's development site, have been forced out of their homeland to make room for this project. In fact, Saudi security forces killed one tribe member and imprisoned many others who protested their eviction. Officials have also prevented local people from contributing to decision-making processes, which seems ridiculous as

they will be the people most affected by the development.

Another important question raised is who would live in NEOM? Its remote desert location, 24hr surveillance and strange linear design may put off foreign buyers. Moreover, houses are predicted to list for up to \$400 million each, making them unaffordable for almost everyone. Saudi Arabia's historic lack of freedoms, especially for women, may also limit overseas buyers, the main targets of this 1 million people city.

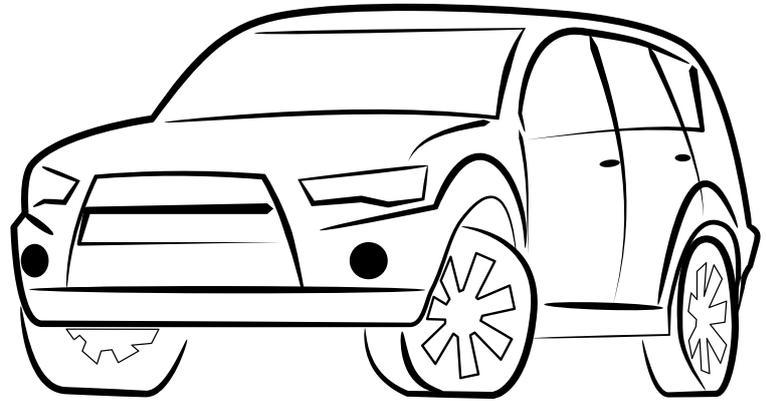
In conclusion, Saudi Arabia's dream of an environmentally friendly and technologically advanced business hub has great potential, but may just be that: a dream. It has lots of support within Saudi Arabia, from the government to local investors.

However, its sophisticated infrastructure plans seem almost impossible to execute and the cost is constantly rising. Another problem is that Saudi Arabia has a bad name across the world, with their established human rights issues potentially putting off foreign buyers. This leaves us with an enormous question; even if Saudi Arabia are able to create such a unique and advanced city, would anyone even want to live there?

# Hydrogen Fuel

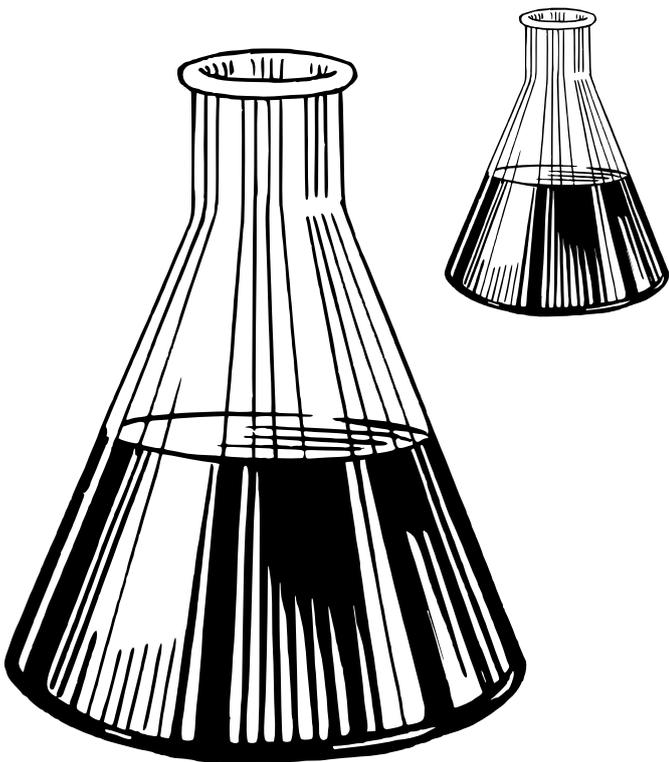
Hydrogen fuel is a practical and sustainable fuel that has the power to revolutionise energy transition. Recently, it has been successfully trialled, with 24 buses in London working on hydrogen as an alternative to petrol. However, hydrogen has some drawbacks, such as lack of infrastructure and its high cost.

Hydrogen is the most common element in the universe, but it makes up only 0.14 percent of the Earth's weight. The vast majority of this ubiquitous element is locked in compounds such as water, which makes up at least 70 percent of Earth. Liquid hydrogen, the main hydrogen fuel, is also relatively easy to produce, as a byproduct of electrolysis or running an electric current through water. This splits the molecules into separated hydrogen gas and oxygen gas, both of which can be easily extracted; the gas is then cooled to become liquid.



## Benefits

Benefits include that it is a completely green fuel due to an absence of burning. Hydrogen fuel cells do not produce harmful CO<sub>2</sub>, CO or even worse chlorofluorocarbons; the only byproduct of a fuel cell is water. This means that no emissions are released and thus air quality is improved. Furthermore, hydrogen is efficient since its fuel economy is twice as efficient than that of oil or gas and it has the highest energy content of any fuel by weight. Unlike an electric car, hydrogen has a very short charging time, but has the same range as that of a fossil fuelled car. Hydrogen does not require large areas of land to generate, unlike hydroelectricity and wind power, which can potentially ruin ecosystems and damage the natural environment. From a political perspective, hydrogen fuel would decrease reliance on fossil fuels and countries with oil-economies, which could help the economic stability of places with fewer natural resources.



# Is Hydrogen Perfect?

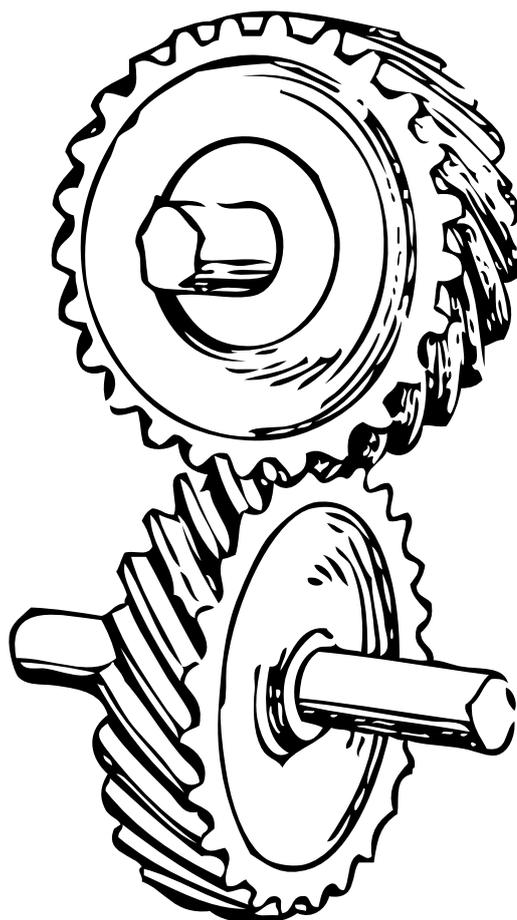


Unfortunately, hydrogen is not perfect. Although theoretically better for the planet than crude oil and gas, hydrogen needs large amounts of electricity to produce, since the only way to separate it from oxygen is electrolysis.

Besides, electrolysis itself and fuel cells sometimes require precious metals such as platinum, which means that the cost of these appliances can be high. For hydrogen to be fully green, the electricity needed to produce it would have to be from a renewable source, which takes longer to produce than fossil fuelled electricity.

It also needs a lot of energy to store as a liquid, since it has the incredibly low melting point of  $-259\text{ C}$ ; this energy would again have to be renewable. Finally, hydrogen is expensive and there are very few vehicles and appliances adapted to use it as a fuel. Most refuelling stops are gas and petrol, and although hydrogen is twice as efficient as either of these, it is still very difficult to source.

Additionally, no infrastructure is currently in place, with hydrogen needing possibly hundreds of miles of high-pressure pipelines, hydrogen refuelling stations along roads and highways and the capacity to store hydrogen underground. Refuelling stations not connected to pipelines need to have hydrogen transported by trucks or trailers, and besides, there is a lack of power plants that can actually produce the hydrogen. Is hydrogen fuel a sustainable alternative to fossil fuels in the future? Ultimately, it has the potential to be. Hydrogen is abundant, sustainable, and efficient to use, however, it is difficult to produce and needs new infrastructure to be mass-produced effectively.

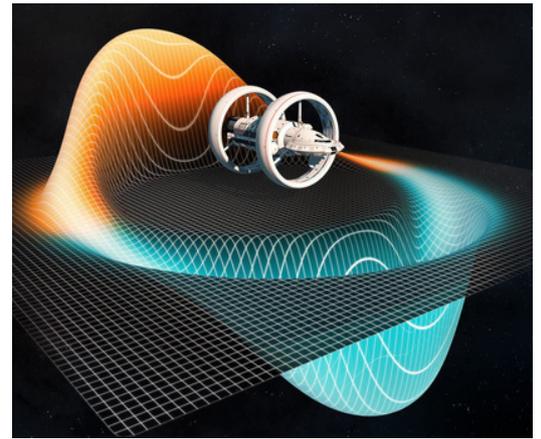


# Scientific Theor

Every field of science has its own array of interesting and baffling theories, concepts and ideas, each one more interesting than the last. However, amidst the endless hypotheses, I have chosen just a few that I find the most fascinating to talk about. From parallel universes to teleportation, here are the top few most incredible scientific theories.

## Multiple worlds

Now what if I told you that there is a parallel universe out there, where you've pulled every fire alarm you've ever seen? What about one where you still think the Sun orbits the Earth? According to this theory, which is one of the most popular quantum theories proposed, there are infinite parallel universes which exist alongside our own, each with slight differences. For example, when a quantum experiment is performed, all possible outcomes occur simultaneously across every world. This would remove the randomness from quantum theory, where each result is unpredictable and based solely off probability, and provide a solution for the measurement problem in quantum mechanics ('do things exist before we measure them?'), but has yet to be proven or disproven.



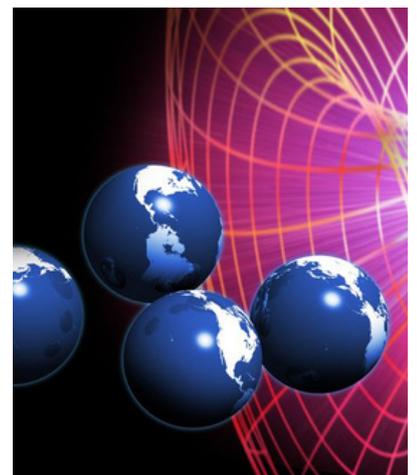
## Warp drive

Miguel Alcubierre, a Mexican theoretical physicist, proved in 1994 that compressing spacetime in front of a spaceship and expanding it behind was mathematically possible and consistent with the theory of relativity. You might know this idea from Star Trek or other books or movies set in space, but the idea is essentially to travel over long distances faster than the speed of light, which was previously thought impossible. Warp drive would, however, require the theoretical exotic matter or a ring of negative energy density to work.



## String theory

Sometimes also called the 'Theory of everything', string theory tries to reconcile general relativity (gravity) and quantum physics, since the two theories currently contradict each other. It's a theoretical framework which replaces the sphere-like particles in particle physics with one dimensional, vibrating filaments called strings in order to attempt to explain how they interact with one another. By assuming all of these particles exist on a one-dimensional plane, the theory simplifies the otherwise extremely complicated task of finding the most likely position of a particle, where you would have to calculate the probability of its location, since it removes the extra variables of other dimensions.



# ies and Concepts



Written by Sofiia, Y8

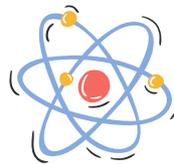
## Exotic matter

Exotic matter is a hypothetical type of matter which would have a negative energy. However, thanks to Einstein's equation  $E=MC^2$ , we know this means that exotic matter would also have a negative mass. It wouldn't be made up of subatomic particles (protons, neutrons, electrons) or have a repulsive gravitational field. Cosmologists have said that negative mass would violate the theory of relativity, but a group of scientists in 1995 discovered that supercooled rubidium atoms exhibited a negative mass, suggesting we may have found a form of exotic matter (Bose-Einstein condensate).



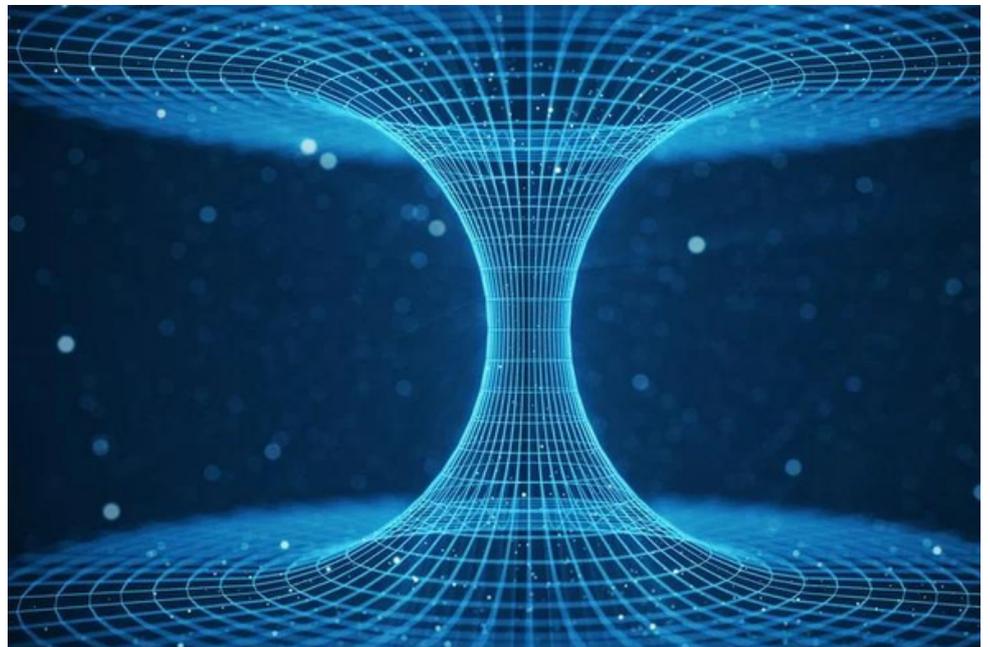
## Quantum teleportation

Teleportation is something straight out of a science, fiction movie. It sounds impossible, right? Well, while human teleportation is still definitely off the cards, it is actually possible in the subatomic realm of quantum mechanics. However, it involves the transportation of information rather than matter itself. This consists of gathering the information about a given particle, such as position and momentum and transmitting it. However, this is impossible due to the fact that you can't measure them simultaneously with precision for a quantum object. The more precisely you pin down its location, the more uncertain its momentum becomes, and vice versa.



## Wormholes

Despite how science fiction-y this may sound, scientists have actually speculated about the existence of wormholes and found that they are consistent with the theory of relativity! These hypothetical structures are thought to link different points in space (or even time!). First discovered by Einstein, wormholes could possibly be created by using negative matter or a white hole, (a hypothetical celestial object, think the opposite of a black hole), both of which we aren't sure even exist.







Poppy S

# An Unconservative Conservative Budget

On the 27th October, Rishi Sunak, the Chancellor of the Exchequer, unveiled his Budget in the House of Commons. The budget outlines the current government's plans for taxation and decisions around spending on health, schools, police, and other public services. After the extravagant amounts of debt that have built up from the Pandemic, many were curious to see how this would impact this year's budget announcement.

Since the 2010 Conservative and Liberal Democrat coalition, the Conservatives have maintained an almost 'Thatcherite' low taxation and low spending approach. The austerity programme initiated by Cameron and Osborne's government, after the financial crisis of 2008, led to severe cuts in public spending (education and welfare specifically). Between 2010 and 2013, the government reduced public spending by £14.3 billion compared with 2009-10. This government had a fiscal conservative philosophy that believed in tight control of government money. Austerity policies were not just adopted by the UK, governments across the world turned to austerity policies to reduce budget deficits by reducing labour costs, privatisation and reconfiguring public services.

As a result of the unforeseen situation of the Coronavirus pandemic, the government has been borrowing and spending substantial amounts of money. In the first year of the pandemic, from April 2020 to 2021, the government borrowed a shocking £299 billion, the highest figure since records began in 1946. This record-breaking debt leaves many asking the question: how will the government repay the money it has borrowed?

Budget measures that Sunak has announced include government departments receiving a rise in spending (totalling £150 billion over the course of this Parliament). The Levelling up Fund will mean that £1.7 billion will be invested in 'levelling up' local areas across the UK: promising widespread prosperity, cohesion between central and local governments and puts councils at the forefront of improving opportunities for people in local areas. A problem facing the current government are the NHS backlogs: 5.7 million people were on waiting lists at the end of August, which is the highest figure since records began in August 2007.

Rishi Sunak has pledged £6 billion to help tackle these backlogs and improve NHS technology. Banks will receive a tax cut from 8% to 3%, which will cost the Treasury more than £1 billion a year by 2026; despite the tax cuts to bank surcharges, ONS points out that the tax burden from this budget is the highest it has ever been since 1945. Another announcement from the budget, is the increase in minimum wage, one might think this would help boost the economy, but other changes elsewhere mean only the very lowest paid will benefit.

Rishi Sunak's budget is far from his predecessors' fiscal conservative approach of austerity. Sunak has stressed that he intends to bring government finances back on track by 2024. The latest statistics have shown GDP growth rates are expected to be strong (around 7.2% this year and 5.5% next year). There are still many questions surrounding our future economy, especially since we don't know what the long-term impacts of Brexit will be.

By Izzy, Y12

# Gingerbread Biscuits Recipe

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## Ingredients

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- 180g room temperature butter
- 125g soft dark brown sugar
- 400g plain flour
- 3/4 teaspoons bicarbonate of soda
- 2 teaspoons of ground ginger
- 2 teaspoons ground cumin
- 1/2 teaspoon of ground allspice
- 1/4 teaspoon of ground nutmeg
- 1/2 teaspoon of salt
- 1 egg
- 125g black treacle



## Recipe

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1. Beat together butter and sugar with an electric mixer until it's light and well mixed together.
2. Beat in the egg and the treacle, scraping down the sides of the bowl halfway through to ensure it's all mixed in evenly.
3. Mix together the flour, bicarb, spices and salt in a separate bowl.
4. Add this mixture to the buttery mix a couple of tablespoons at a time, scraping down the bowl with the spatula frequently.
5. Once it's all mixed together, wrap it in clingfilm and leave in the fridge to rest overnight.
6. Preheat the oven to 170 fan.
7. Take the dough out of the fridge about 10 minutes before you start to roll it out.
8. Roll out the dough on a floured surface until it's about 4mm thick.
9. Cut out biscuits with your desired cutters and place onto lined baking trays.
10. Bake for about 10-15 minutes.
11. Leave to cool for about 10 minutes, if you can bear to wait, then enjoy with a delicious hot drink.

# Penggiun Team Playlist

- Thunder by Imagine Dragons
- You Make My Dreams by Daryl Hall & John Oates
  - I'm a Believer by The Monkees
- Best Day Of My Life by American Authors
  - Take On Me by a-ha
- Edge of Seventeen by Stevie Wonder
  - I'm Still Standing by Elton John
  - Mr Brightside by The Killers
- Kill The Director by The Wombats
- Higher Love by Kygo, Whitney Houston
  - Put Your Records On by Ritt Money
- Shut up and Dance by WALK THE MOON
  - Uptown Girl by Billy Joel
- Build Me Up Buttercup by The Foundations
- Hey Micky You're So Fine by The Original Chin Chins
- Accidentally In Love (Shrek 2) by Counting Crows
  - She's So Lovely by Scouting for Girls
  - Year 3000 by Busted
  - Waterloo by ABBA

