

# The Pinnacle

I come into the peace  
of wild things.

I come into the  
presence of still water.

And I feel above me  
the day-blind stars  
waiting with their  
light. For a time

I rest in the grace of  
the world, and am  
free.



**Issue 31 | Spring 2022**

Showcasing exceptional work  
by pupils from Princethorpe  
College, Crackley Hall School  
and Crescent School.



**Princethorpe  
College**





# Welcome Letter from the editor



Spring is on its way and with it comes a feeling of hope and something closer to normal life after the trials of Covid. It is this sense of promise that compelled me to include on the front cover a quote from one of my favourite poets, Wendell Berry. Poet, essayist, farmer, and novelist, Berry is the author of more than thirty books of poetry, essays, and novels. He lives in Port Royal, Kentucky near his birthplace, where he has maintained a farm for over 40 years. He holds a deep reverence for the land and agrarian values and his poetry celebrates traditional values and encourages us to live in harmony with the natural rhythms of the earth. I recommend you look him up – his work is immensely powerful and memorable.

The front cover for this issue is the work of Upper Sixth art student and all-round creative, Mary Lomas. Mary's grandad, Lou Skiffington, was once Head of Art here at Princethorpe College, so a creative flair is clearly in the genes. This painting is a response to Mary's research on double-portraits and mirror self-portraiture. It's also the first oil painting she ever did! We think it's very accomplished. Well done, Mary.

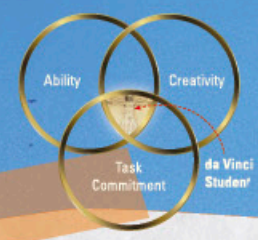
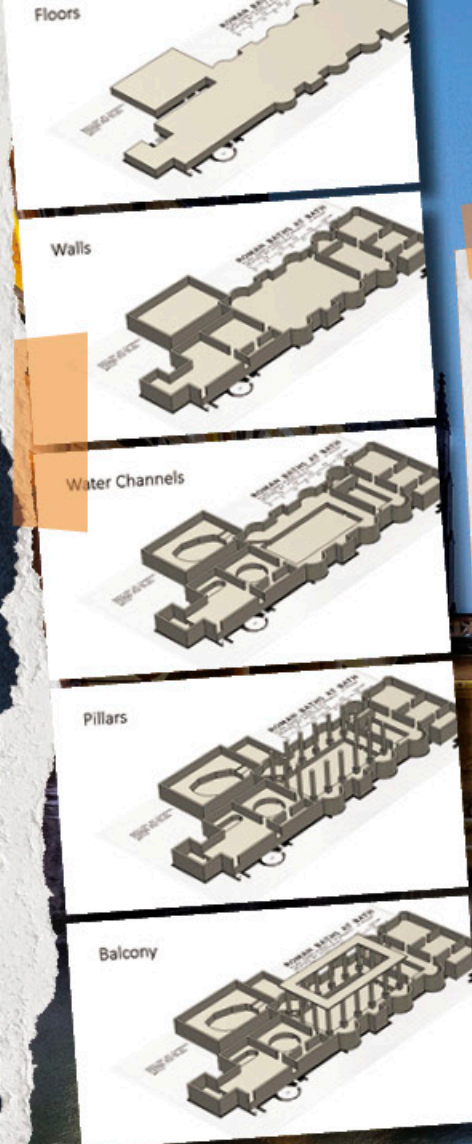
Already this academic year we have been inspired by STEAM talks from Dr Suzie Imber and Dr John Lloyd. More talks are scheduled, so keep an eye out. We have also seen much success on the sports field and in the drama theatre. Princethorpe is a busy place with all our students thriving in so many ways. Staff have enjoyed reading the books gifted to them by the Headmaster and, of course, we are all immensely excited that preparations for the building of the new Science Centre is now underway. There is much to look forward to.

As always, there are pages and pages of excellent work in this issue from across the Foundation. It's always a pleasure and a privilege to bring everything together in one place and to see the thoughtful work you have all been doing. Well done everyone.

Thanks go to: staff at Princethorpe College; staff at Crackley Hall School (co-ordinated by Cat Hardwick); staff at The Crescent (co-ordinated by Sarah Webb); the Marketing Team and Debbie at Dam Design Creative.

See you next issue!

**HELEN PASCOE-WILLIAMS**  
EDITOR & CO-ORDINATOR OF THE  
DA VINCI PROGRAMME



## ROMAN BATHS PROJECT

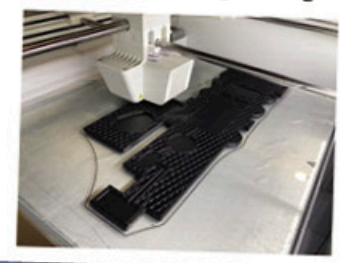
Year 7 pupils in History were tasked to create a project around their recent study of the Roman Baths.

Imogen Sibby produced a replica 3D printed floorplan with a working drainage system that could be filled with water from a bottle to watch and explain how the Roman Baths worked. This is one of the most creative projects Mr Lytle has seen and was fully deserving of a *da Vinci* Merit. Well done, Imogen, we look forward to seeing what you produce for your projects in Year 8 and beyond!

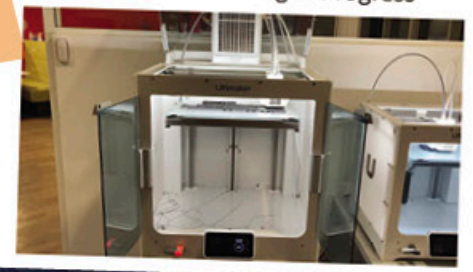
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# The Play's the Thing

We'd like to celebrate a fine example of a working notebook for devised piece *Down the Rabbit Hole* by Lower Sixth drama student James Maclean, a short discussion on the National Theatre's *Peter Pan* by Year 8 pupil Kathryn Flegg and a sample devising log by Year 10 pupil Lampros Papadogiannakis. Great work everyone.

## Down The Rabbit Hole Influencing Practitioner Bertolt Brecht

### Rationale and Research

The initial stimulus that inspired our piece was the song *White Rabbit* by Jefferson Airplane, a band from the 1960s Psychedelic Rock scene. The song is a metaphor for drugs and the spiralling descent they can cause. This song inspired us to base our piece on the dangers of drug abuse, specifically how drugs can have a devastating impact on people from all walks of life, regardless of their economic or social background. During our research into accounts from real drug abuse victims, we reflected on this quote from the playwright, Sarah Kane: "There's not a drug on earth that can make life meaningful". This was powerful as it delves into how drugs do not fix any of your problems, merely postpones them, and does not give your life any further purpose. To explore this theme, we decided on our influencing practitioner being Bertolt Brecht as the issues are socially, politically, and economically pressing. We want our audience to consider drug usage both today and historically as a pressing matter that needs addressing. The Brechtian style naturally appealed to us because we wanted to create both a 'Didactic' and 'Dialectical' piece of theatre, whereby, we are able to 'preach' the danger of using drugs as well as encouraging the audience to observe objectively, ponder and develop a strong social call to action that will prevent others from falling into the dangerous trap of drugs.

By James Maclean, Lower Sixth



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## Discuss the use of multi role play in the play Anna Francolini

Multi role play is used in the play by Anna Francolini as she plays both Mrs. Darling and Captain Hook. As a character Captain Hook walks quite fast and confidently, her expression is that of evil, her voice is high pitched but controlled this added together presents her with a demanding demeanor. Hook's costume uses the colours violet and smoke to present her as evil and a pirate. These colours take our minds to the idea that she is cruel and wicked, the costume itself is an intricate dress that is raggedy and dirty. This shows that she does not care about how she looks, she is just focused on *Peter Pan*. However, Mrs Darling is shown quite differently. Darling is fast but timid, this shows how she is unfocused but loving. Mrs Darling's costume is that of a lady in the early 1900s, this infers that she is rich and well-mannered having had proper etiquette lessons on how to be a lady of her class.

There are many examples of great moments during which Francolini demonstrates her effective acting skills. One of these is the moment when she is on the Jolly Roger and must walk the plank. At the start of this scene the Jolly Roger is lifted through the revolving stage, during this the stage is dark with a dim profile spot lantern shining on the ship, there is also a mist settling on the bottom of the stage to show how they are sailing on the lagoon. Whilst this is taking place you can see Francolini as Captain Hook having an authority at the top of the ship, this placement shows how she is the captain, or the one in charge. The segment where Captain Hook walks the plank is interesting. During this scene Francolini talks fast but controlled, this suggests that her character is nervous but still in charge. Hook's face is in a wicked grin the whole time, even as she knows that there is no way out. This is truly a gripping moment that terrifies and enthralls the audience.

By Kathryn Flegg, Year 8



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## This is a Pandemic

Our initial stimulus was the photo of the faceless man. We found the image quite shocking at face value but were inspired by the idea of being "faceless". We started the devising process by looking at government surveillance and authoritarianism and how this in itself is a suppression of human identity however this topic was deselected. This led us to think about health care workers during the night of the COVID-19 pandemic and how through layers of PPE and sanitation they too became "faceless". We wanted to portray how behind all the masks, visors and PPE, there was a humanity and that these workers were more than just health care workers, they were, wives, husbands, fathers, mothers, neighbours, and not just faceless key workers. We further narrowed our discussion point by choosing to talk about the mental impact the pandemic had had on front line workers, exploring the depression and PTSD many still live with today. I found this topic would take us off the beaten path and look deeper into an issue only just coming to light. Since choosing this specific topic as a group we have researched individual doctors' stories, read about PTSD and other mental disorders and watched theatre and programmes related to it such as the Channel 4 drama, 'HELP'.

As a group we took inspiration from the literature of the author George Orwell. We were most inspired by his novel 1984, the novel served as a timeless reminder about the importance of freedom in society and

the strength of the human mind. We took inspiration from the bleak, dystopian and imposing landscape of Oceania in particular. We felt the book possessed many metaphors and deeper meanings and can be interpreted in so many ways depending on the reader, 1984 has never been more relevant.

By Lampros Papadogiannakis, Year 10



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"Power is in tearing human minds to pieces and putting them together again in new shapes of your own choosing."



# Speech Writing

## Graffiti – an expression of the self or a criminal offence?

Since when has expressing oneself through the form of art become a punishable offence? Well, according to the Criminal Damage Act, graffiti has been classified as a form of vandalism and therefore a violation of British law since 1971. This means that anyone caught painting on public property can face grotesque fines of up to £10,000 or lengthy prison sentences as long as 10 years in jail. Sure, there are obvious cases where someone is clearly committing vandalism by scribbling or scrawling potentially offensive messages for the public eye to see, but should these crimes belong to the same category as respectable, expressive public artwork? Regardless of your opinion, the law in Britain is determined to do exactly that.

The word 'graffiti' is derived from the Italian *graffio*, meaning "a scratch" or inscription. This is often an accurate description for graffiti, as it is common to see phrases or "tags" of certain artists sprayed on brick walls down dingy back alleys. Nevertheless, just like we as people cannot let a single occurrence define us, we cannot allow graffiti to be entirely accounted for by a disgraceful minority. A surprisingly large amount of the time, graffiti can be magnificent artwork completed to a professional standard – the only difference between that and official artwork is that one isn't produced on a canvas. Dark, dingy streets and industrial estates can be brought back to life by vibrant artwork that is created voluntarily and free of charge, revitalising the cityscape. This may seem like a far-fetched ideal, but it is nothing short of reality for places such as Australia.

*By Oliver Llewelyn, Year 11*



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## The patriarchy is an attack on humanity

It is a known fact that we live in a patriarchy, but it is a less known fact that aside from natural causes, the most common cause of death in women is murder. Aside from natural causes, the most common cause of death for men is suicide. But what does this mean? Well, it is evident that there is a problem. Society has come to accept that women are murdered, and men don't get help. But again, what does it mean? The patriarchy is an attack on humanity.

Let's begin with the female side. By March 2020, 207 women were killed that year. In 10 years, 1425 women were killed, that's 1 woman killed every 3 days! 9 out of 10 were men and 57% of the victims knew the murderer. Ex-lovers, current lovers or just a male friend, regardless, we saw none of these cases in the news. Over 70% of these victims die in their own home, a place they should feel safe. But what does all this mean? The statistic shows that women are killed very often, in a place they should feel safe and by a person they trust.

This isn't an attack on men, but it is an attack on women. Through history, husbands could hit their wives and even though it is not accepted today, it continues. The lack of protection for women stems from the patriarchy being built to allow male counterparts to reach as far as killing woman and having little to no publicity on it. An example is Sarah Everard, a woman killed by a man, a police officer, someone who's job is to protect. The outrage that occurred drew attention to this very topic- the patriarchy is an attack on humanity.

*By Natalya Elden, Year 11*



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## A Single Second Saved

Now, before we start discussing anything else, I want to ask you all a question. You don't have to tell anyone the answer, just keep it in your head. I want you to retain in your head how much money you make every year. Do you have it in there? Alright, good. Now I want you to throw that number out because it's probably below 28 million pounds – and because that is the figure that the new High Speed 2 railway between Birmingham and London is going to cost. Per second saved over using traditional rail. That figure may end up being hard to grasp, big numbers tend to – so here's a little visualisation. The average wage in the UK is around, let's say, £30,000 a year. For you alone to pay for a single second saved on the journey from Birmingham to London, it would take you over 900 years.

However, if you are someone who supports the construction of HS2, you might already have an answer in mind, and it's probably to do with lifetime cumulative usefulness, which is a term I have just invented to describe the total usefulness of something over the course of its use. In HS2's case, it may be apparent how this applies; as HS2 grows older and it is used more and more, it will begin to offset the massive cost. And to be honest, this is a fair point – until you realise probably less than 1,000 Birmingham residents actually commute to London at all. And anyway, what about the other thousands of towns and cities around England that will gain absolutely nothing from HS2? Residents of towns like Aylesbury, Brackley and Southam will have the path of HS2 blasting almost through their back gardens, and will gain nothing but a decade of construction works and road closures around their towns – all the Pain and none of the Gain.

But still you may be unconvinced. I can hear it now – "That's the price you pay for development. HS2 is a necessary step if England wants to remain strong after we left behind the EU!", and if you're someone who says that I would also like to say something – you're a drag on society. But regardless of how true such a statement is, there is also a major factor I haven't mentioned yet. For most it's the primary reason they're against HS2, and that's the environmental impact.

By Joseph Newborough,  
Year 11



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# Revolting Children, a Big Hit



In early February, a group of young actors from Princethorpe College produced four performances of *Matilda the Musical Jr*, across Thursday, Friday, and Saturday respectively. The show was a huge hit, and months of hard work and dedication paid off as we sang and danced our way through a creative adaptation of Roald Dahl's classic children's story, which featured hits such as *Naughty*, *Bruce*, and *Revolting Children*.

Set in the school of Crunchem Hall, *Matilda* follows the story of a young girl with an incredible mind, but who is not wanted at home, regarded as a 'twit' and a 'liar,' and scolded for reading instead of watching television. At school, Matilda's life does not become more peaceful, despite the best efforts of her friends and her kind class teacher, Miss Honey. This is due to the personality of the headmistress of Crunchem Hall, Miss Trunchbull. A retired Olympic hammer thrower, she despises children to the very core, and takes delight in punishing them, and imprisoning them in a torture chamber, 'The Chokey.' But when Matilda discovers that she has special abilities, to go with her intelligence, can she find a way to live in tranquillity, without her parents bullying or Miss Trunchbull's abuse?

Whilst overall it was a brilliant performance by everyone involved, but standout performers included Amelia Hunt (Year 7, played Matilda), Chloe O'Carroll-Bailey (Year 11, played Miss Trunchbull), and Ignash Librowski (Year 9, played Bruce Bogtrotter.)

Overall, I think everyone on the stage or off it, actor, director, or member of the lighting and sound crew made a fantastic team which made this phenomenal production possible, did an incredible job and all deserve to be part of the Princethorpe Musical Theatre Family. Finally, I would like to thank Mr. Cowlshaw and Mrs. Newborough who gave us this fantastic opportunity to make memories, have fun and make new friends.



WRITTEN BY NOAH COWLISHAW, YEAR 7 | WRITTEN BY NOAH COWLISHAW, YEAR 7





# Everything is Always Possible

Year 9 English students have been studying poetry this half term. Inspired by Lawrence Ferlinghetti's *Two Scavengers in a Truck* - a poem offering a snapshot of a scene in San Francisco - one class have tried their hand at writing their own poems and experimented with formatting their work to enhance their messages. Here are a few stunning examples of the work produced and the images that inspired them.



## Looks

Along the sidewalk he sits  
At the shoe shiner's station and looks  
Down at his shoes without a care and says  
"do me a favour and shine 'em"  
With a cigarette in one hand and  
The other rested upon his leg as though he was bored  
Looks of disgust and criticism comes upon his face  
As the shiner takes a glance up  
Catching eyeline with one another and the wealthy man states  
"YOU, do not look at me"  
And within moments the shoe shiner stops  
And at that very moment  
The man gets up drops the money and  
Walks.  
As though he was never there  
And the shoe shiner glances up and wonders  
Why is society so split?

By Eden Chaplow

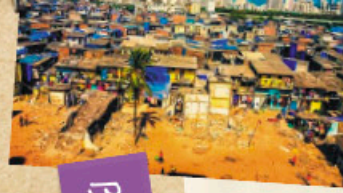
## Different World

The rising sun hits the windows,  
Making them shine.  
The whitewashed walls gleam.  
The plants on the balconies lap up the sun.  
The pavement is filled with people in suits,  
Who all have somewhere to be.  
The car engine roars,  
The street growing louder.  
Looking out of the highest window you see,

*The bright, mismatched colours*

*Living on top of each other*

*The dogs running*



By Isabel Barnes

By Hugh Henderson-Martin

May 25 9:30, Minneapolis

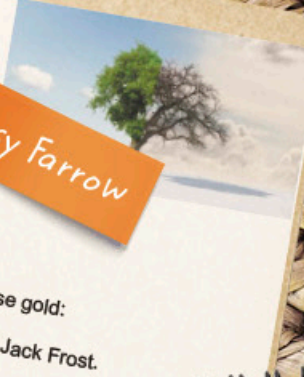
## One Last Breath.

*one last breath*  
*one last breath. from one man*  
*was all it took*  
in that one, last breath, two men, only a year age gap between them,  
different and yet the same  
same and yet different  
the only divide being the colour of their skin, sealed their fates  
*the brutality, the chaos, the evil*  
*unthinkable until that day*

## The Awakening

The leaves carried Their icing sugar.  
Each bead of dew Was frozen in time.  
The sun tinged the Early-morning lawn rose gold:  
Every blacksmith and craftsperson envies Jack Frost.

By Issy Farrow

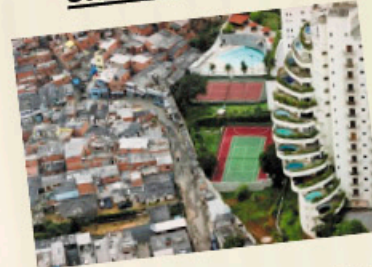


## I wish it was Summer

Winter.  
Tall, twisted trees  
White  
Snow  
Falling  
Down  
Adding to the crisp white layer of magic  
On the ground.

By Chloe Potts

## Snake



he rarely has much contact with that side,  
Noone approaches that side of the wall He has  
been told not to ask questions.

Nine am the shift starts he has a job to do,  
Slithering, twisting, turning,  
is the divide between the rich and the poor,  
The haves and have nots  
To one side he hears an eerie silence  
Everyone has gone to work Start  
early, finish late,

By Zach Hawkins

*The other side are the ones paying.*

See the full versions of these poems...



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Alexander  
Hammond:

# On Being Prepared

Fifteen-year-old Princethorpe student, Alex Hammond, has already achieved great things in football. He also has some sound advice for others who aspire to perform at the highest levels. Read on to find out how giving up is not an option and how sometimes good is good enough.



Q. Where did your football journey start, what were your earliest memories of football?  
A. I started playing football at the age of 4 for my local football team Weddington Lions and one of the earliest memories I have was playing in the local cup final at the Ricoh Arena and winning the cup that day.

Q. What has been your best school game?  
A. The best school game I have played in was the National Cup first round for the first team this season. The game ended 1:1 after extra time and so it went to penalties where I saved all 4 penalties in the shootout, and we won the game to get through to the next round.

Q. Have you always played in goal?  
A. Yes, I have always played in goal because I enjoy diving around and keeping the ball out of the net. I do enjoy playing outfield, but I get sent back in goal quickly!

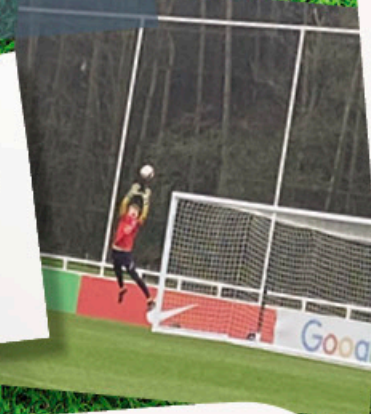
Q. When did you first sign for Aston Villa and how did it happen?  
A. I first signed for Aston Villa when I was an U13. I was a part of a district group that were invited to go and have a training session with the Development Centre at the Bodmoor Heath training ground. They really liked me when I was there, so I was asked to go to goalkeeper specific training sessions every Wednesday. I impressed the coaches and after 4 or 5 weeks I was invited to a 6-week trial at the Academy at the end of the U12 season. My trial carried on until the start of the U13 season where they offered me a two-year contract.

Q. What advice would you give to any young player who has ambitions of playing at academy level and beyond?  
A. The advice that I would give to any young player is to have fun and enjoy what you are doing and to believe in yourself because if you don't enjoy it you won't want to work hard and get to where you can. The other bit of advice is that you have to stick to it because you aren't going to get any better over night it takes time and if you give up you will never achieve your potential.

Q. What are your long term goals in Football?  
A. My long-term goal is to have a successful professional career at the highest level that I could possibly play which is hopefully going to be in the Premier League and England senior level.

Q. Since working with the AVFC Goalkeeper coaches, what is the best advice you have been given?  
A. The best advice has been that not everything has to be perfect, not every catch has to be clean and textbook, not every dive has to be forwards and attacking the line of the ball, not every kick has to be to the player on a tee. Sometimes good is good enough.

Q. Can you give us any examples of setbacks that you have had to overcome so far?  
A. I injured my wrist in training and could not play matches for a month, I still struggle with this injury now and have to tape it for support, so it doesn't happen again. It was the first time I had missed game time, so it was really strange for me, but I knew I had to take time to let my body heal properly and not risk more injuries.







Princethorpe's STEAM ambassadors ran an internal essay writing competition last term. Here is a sample of the excellent work produced by Year 7 pupil Isaac Nelson, Year 8 pupils Ariana Gray, Jorja Parris and Megan Thandi and Year 10 pupil Tim Peyret. **Well done everyone.**

For some context - This is a topic that is important to my family as my brother who was born with achondroplasia took part in a trial for Vosoritide and is consequentially taller than he otherwise would've been.

The effect of vosoritide on children with achondroplasia and the controversies surrounding its use

Achondroplasia is a form of dwarfism which effects around 1 in 25,000 births. It is a genetic disorder caused by mutations in the FGFR3 gene; this gene provides instructions for making a protein involved in the development and maintenance of bone tissue. The mutation causes abnormal bone growth and development leading to short stature in those effected; average adult height is 4'4 (feet and inches) in males and 4'1 in females. The mutation usually arises spontaneously however it can be inherited. Achondroplasia often causes other medical complications such as bowlegs and curvature of the spine.

Until recently, there has been no known "treatment" for achondroplasia. American company Biogen's development of the drug Vosoritide (sold under the name "Voxzogo") is unlike anything that has been seen before. It uses a synthetic form of a protein that humans produce naturally to target the "overactive signal that prevents bone growth in children with achondroplasia" according to Dr Melita Irving. In August 2021 it was approved by the EU for medical use after successful clinical trials; children administered Vosoritide grew an additional 2.1cm each year compared to those on the placebo. It is given by injection once day and is suitable for children 2 years of age and older until the growth plates close. Despite its negligible side effects, the use of the drug is a controversial topic among members of the dwarfism community. And so the question arises; is this really ethical?

By Ariana Gray, Year 8



### Links Between Maths and Art, in particular the animated cartoon, The Simpsons.

A cartoon is a type of illustration that is typically drawn, an artform that is built from simple drawings which feature characters that are usually drawn in a humorous or exaggerated way. Cartoons can be animated and one such animation is The Simpsons.

The Simpsons is an animated sitcom featuring the Simpson family and their antics.



Many people believe that any good animation these days requires advanced computer programming skills along with many maths skills – such as trigonometry and geometry, calculus and statistics as well as advanced number work. There is a lot of maths behind the scenes when producing animated cartoons. Lots of animators today have degrees in Maths, Physics, English and Computer Science.

Recently I had the privilege of having a zoom meeting with a scientific author called Simon Singh. He brought to my attention just how many maths references, puzzles and problems to solve were hidden in every episode of The Simpsons. Research then showed an endless supply of mathematical jokes and references hidden away yet visible for all to see - which are well known in the maths community. The animators themselves are mostly maths geeks!!!



By Isaac Nelson, Year 7



### Musical Fractions

'Maths is boring.' The common statement from any student. 'We don't need it outside the classroom.' They say. Most people think that maths is useless and that it never shows up in our everyday lives, but this couldn't be further from the truth.

I really enjoy music and have played for many years, and after finding a deeper understanding of it all, I've realised how many other subjects cross over into it. This interesting topic relies on feeling and emotion, like art, and can be attached to memories, places and even people, which links well with psychology and science. But maths and music seem completely different – maths is very structured and is based on problem solving, while music requires more 'out-of-the-box' thinking and is more creative – however, they're more similar than most realise.

A composition consists of musical notes, like crotchets, quavers, minims and semi-brievs, which are played at different pitches, for different lengths of time, to create a melody. This is common knowledge, but what if I were to say that it was all based on math? You would probably wonder, how? Well, each note corresponds to a fraction – quaver =  $1/8$ , crotchet =  $1/4$ , minim =  $1/2$ , semi-brieve = a whole note – and is played for that much of a whole note. Additionally, the fraction at the start of a piece of music determines how many of a note are in a bar. For example, if the fraction at the beginning was  $6/8$ , there would be six quavers ( $1/8$ s) in a bar. Using this method, we are able to construct compositions with different feels and work out how to play a piece with fractions.

In conclusion, although maths can seem worthless and a waste of your time, there are more layers to it than you may realise. Many subjects can include problem solving, algebra, fractions and more, and you use these every day, subconsciously. Music and maths connect in many unusual and unexpected ways – never underestimate what they can do!

By Jorja Parris, Year 8



## Time to tackle Climate Change

Sir Patrick Vallance is the Government Chief Scientific adviser as well as Head of Government Science and Engineering. He has carried out his own research in diseases and worked at GlaxoSmithKline as head of Drug discovery. During the time he was president of R&D, over 14 new medicines were approved for use worldwide for many different diseases. His impact has been extraordinary to his field of work and his most recent accomplishment has helped lead the UK's response to the Covid-19 pandemic with vaccine development.



Patrick Vallance recently attended COP26 with Boris Johnson, his most important message warned that action is needed now, and that climate change is far bigger, and potentially more deadly, than Covid-19.

Sir Patrick Vallance said at the UN climate summit in Glasgow, that coronavirus was a 2-4-year problem, whereas climate change is a 50-100-year problem and that more people will die from climate change rather than Covid-19 if we fail to act. He said that to battle climate change we will need technology and behavioural change as the pandemic is combatting climate change and that we collectively need to reduce our carbon footprint. He told the BBC: "The reason I say it is a bigger problem is because in terms of the overall effect on humanity, if this is not stopped it is a bigger, bigger challenge to the way we live, and lives will be lost."



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By Megan Thandi, Year 8

## How technology impacted Biology

There is no doubt that scientific advances depend not only on new ideas but also to a large extent to a technological advance. Technologies have allowed scientists to discover new fields of research for example analysis of DNA or neuroscience. They have also meant that some biological research can be carried out easily and cheaply in every lab.

Modern imaging technology has an immense impact on cell research. Increasingly sophisticated microscopes have allowed scientists to discover and reproduce subcellular structures. Furthermore these technologies have allowed us to video and study cells as well as other subcellular organelles. The discovery of stem cells during this research has enabled us to progress medicine by developing cures to diseases like cancer. These are just some of the few examples of technological advances impacting biological discoveries.

Technologies that have been adapted to easy and affordable use in laboratories have changed the speed of scientific progress. The polymerase chain reaction (or PCR) machine is an example of how technologies have sped up laboratory work to enable research that would be too time consuming or simply not possible. The PCR machine makes millions to billions of copies of a specific DNA sample, allowing scientists to take a very small sample of DNA and amplify it a large enough amount to study in detail. The PCR test is used in the sensitive test for tissue typing and is a vital factor for organ transplants. It also allows us to identify non-cultivable or slow growing micro-organism such as viruses or bacteria and has helped diagnose early tuberculosis saving many lives.



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By Tim Peyret, Year 10

## Emmi Accepted onto New York Academy of Sciences Programmes



Year 9 pupil, Emmi Parmenter, has been accepted into the prestigious New York Academy of Sciences Junior Academy and onto the 1000 Girls, 1000 Futures mentoring programme. Both programmes offer Emmi the opportunity to join virtual learning communities and work with STEM experts and leaders from around the world.

With only 1000 places available world-wide, Emmi's selection bears testament to the strength of her application which included an essay on biological engineering and applying the principles of biology to real life situations.

As a member of the Junior Academy, Emmi is taking part in project-based learning, creating solutions to real-world issues. She has just completed the first of two 10-week challenges, working in an international team alongside STEM experts and networking with her peers in India and the USA. Here she tells us about her first project experience:

'My first challenge with the Junior Academy was on the topic of restoration of aquatic ecosystems. To begin we researched some background information on eutrophication. After getting a clearer understanding about what our topic was, we began conducting our own research. We tested home filtration systems and used this evidence for our final conclusions. When it came to producing our final project, we divided the work up and described our process and final deductions. This was very similar to the 1000 girls 1000 futures programme, where we had the brief of "advocacy and communication". Within this, my group chose to explore how we can help those with learning difficulties to focus more in school. We started researching different learning difficulties such as ADHD, autism and dyslexia. We began coming up with common ways to help people who struggle with these issues and things schools could easily implement, we created a final presentation describing the difference between them all and made sure to include all of our source analysis. These programmes helped me out with my research skills, collaboration and source analysis a huge amount. They have taught me a lot and the next projects begin in the Spring'.

As part of the 1000 Girls, 1000 Futures programme, Emmi will participate in one-to-one mentoring with scientists and engineers, take coursework modules focusing on skills such as leadership, communication, and critical thinking and have the opportunity to network with peers and female STEM professionals

It is fantastic to see Emmi's passion and excellence in the realm of STEM recognised on an international level, we know she will make the most of this wonderful opportunity to further her knowledge and skills. You may remember that Old Princethorpean and Academic Scholar, Lauren Mason, also took part in both these programmes and is now reading Natural Sciences at Selwyn College, Cambridge. We predict an equally bright future for Emmi.





Should being an MP be a full-time job, where no extra work is undertaken?

# POLITICAL PARLEY

BY TOBY PEARTON, LOWER SIXTH

- £81,932.
- Expenses.
- Registers of Members Financial Interests.
- Member's Yearly Bespoke Stationary Budget
- Accommodation Costs.
- Caring Responsibility.
- Staffing Costs.



This outstanding presentation, by Lower Sixth student Toby Pearton, was delivered in lessons to address a key question relating to our study of Parliament, linked to a very topical issue. Toby did all the research independently and delivered this presentation to the group. It shows a developed understanding and he clearly explained and analysed all the issues raised, with examples, in this presentation. His delivery was confident, and he spoke with clarity. Super work Toby.

 **READ MORE ONLINE**  
SEE QR CODE ON PAGE 2

Being an MP should be a full-time job, and no other work should be undertaken.

- Prevent and ultimately eliminate lobbying scandals and any conflicts of interests.
- Being a US Congressman is unquestionably a full-time job, surely the same should apply for an MP?
- A constituency deserves the full attention of their MP.
- -68%



## To conclude:

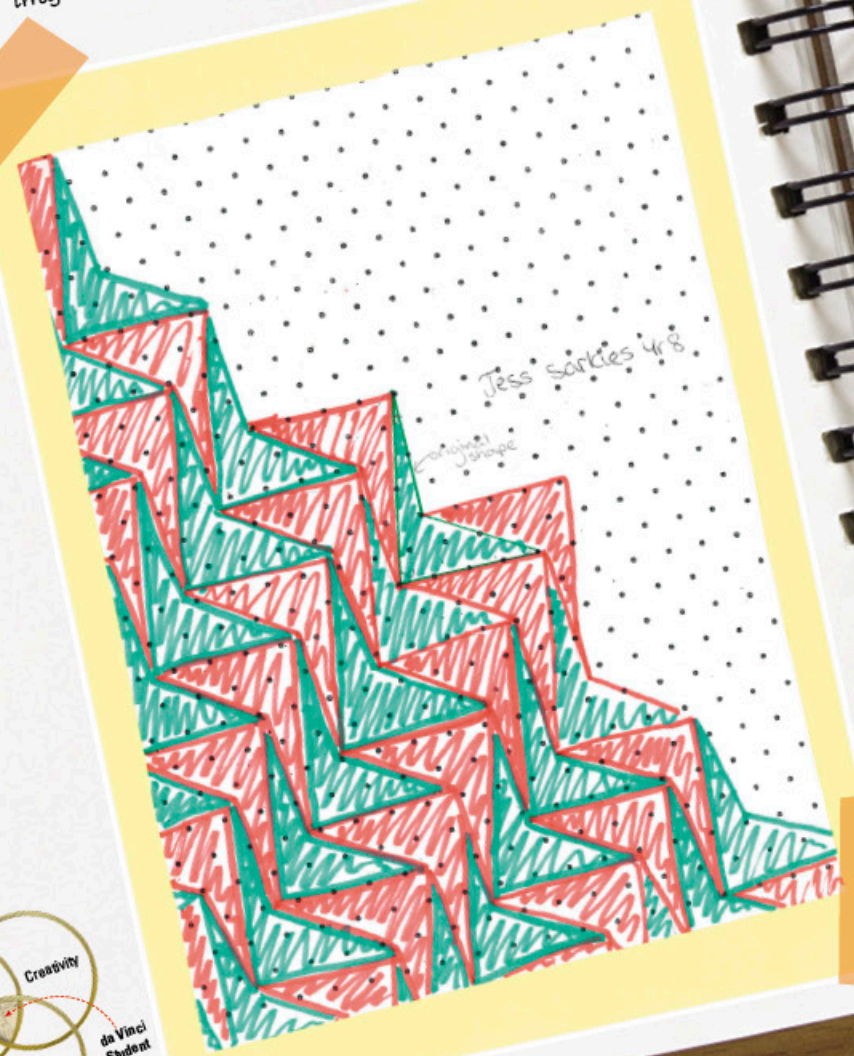
Overall, the arguments and counter arguments for MP's secondary jobs, both provide interesting viewpoints.

If we enable secondary jobs, society are making some forms of government lobbying - but surely as many MP's do require additional income, we can monitor to what extent? And allowing MP's to have secondary jobs provides parliament with diversity and a greater professional insight.

However, if we removed the ability for MP's to have secondary jobs, it would prevent and ultimately eliminate lobbying scandals and any conflicts of interest individuals may have.

## Terrific Tessellation

Jess Sarkies in Year 8 completed an extra Maths project and received a da Vinci for her drawing which shows how an irregular quadrilateral can tessellate. Nice thinking Jess!





# Artist Studies

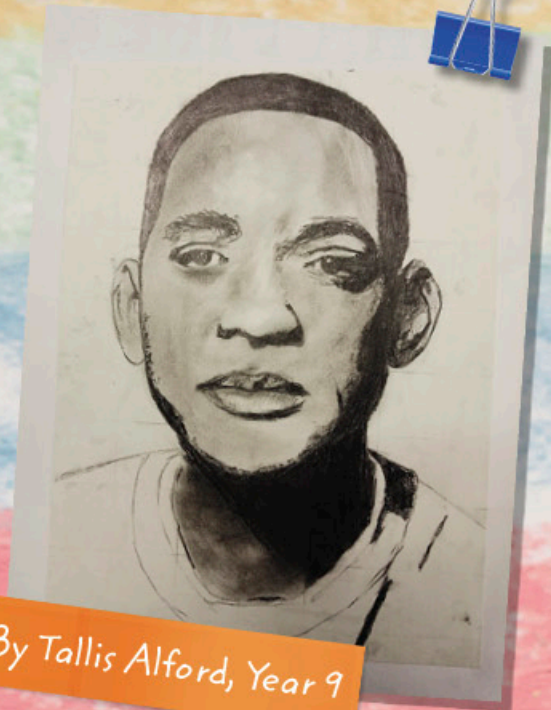
Princethorpe is well-known for the quality of the art produced by our pupils. This term has been no exception. Here we would like to celebrate a wonderful tonal portrait executed by Year 9 pupil Tallis Alford and Hundertwasser artist studies by a selection of Year 7 pupils. Using coloured pencil on black card, George Fry, Tara Rodgers, Ollie Stevens, and Hattie Sarkies have created some exquisite pieces of art. Well done everyone.



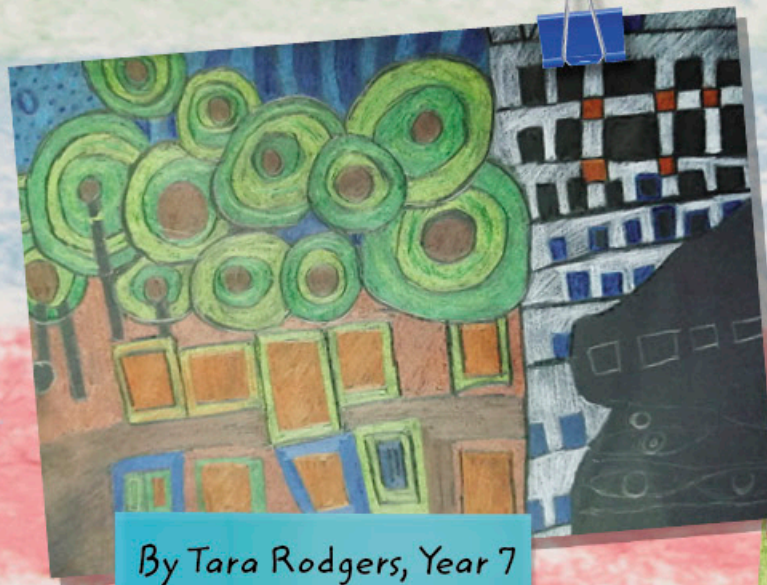
By Ollie Stevens, Year 7



By Hattie Sarkies, Year 7



By Tallis Alford, Year 9



By Tara Rodgers, Year 7



By George Fry, Year 7



# Catwalk Concept

Upper Sixth textiles student, Amelia Burgess, has stunned Mrs Porter with her Japanese-inspired project. Briefs are chosen by the students, so the concept was all Amelia's own idea and she worked with Mariette Greve, a product designer from Karl Lagerfeld, who was so helpful. Mariette helped Amelia with ideas and catwalk concepts and the result is this spectacular garment. Stunning work Amelia.

Japanese colour scheme - representational

Red symbolises peace & prosperity of the family

Black symbolises powerful & foreboding

Gold symbolise the sun and the god's power & mercy

knife pleats meet at 1 point to create bow shape

Structure required to stand up

backram or heavy interfacing

1" wide fabric wrapped around cover joining

sharp edges & points

U-neck

small cutouts, bodice overlaps skirt, illusion of smaller waist

black & gold Japanese blossom print compliments red

deep scarlet red

black & gold Japanese blossom print compliments red

looks like large pockets

sharp angles & points

backram, interfacing?

or stiffened fabric

FABRIC #1		FABRIC SPECIFICATION	
NAME	Black & gold oriental cherry blossom cotton #1467894	SWATCH	Red crepe back satin
MANUFACTURER	Spoonflower, South Korea	SWATCH	Fabric Land
METERAGE	3	SWATCH	1-10
WIDTH (m)	1.06	SWATCH	100% polyester
COMPOSITION	100% cotton	SWATCH	Crepe back satin
WEAVE	Plain	SWATCH	150g/m <sup>2</sup>
WEIGHT	145g/m <sup>2</sup>	SWATCH	(See classroom testing)
TENSILE STRENGTH	(See classroom testing)	SWATCH	18-1664
PANTONE COLOUR	19-4008 (See classroom testing)	SWATCH	N/A
PATTERN REPEAT	30cm	SWATCH	(See classroom testing)
COLOUR FASTNESS	(See classroom testing)	SWATCH	0-3 % length
SHRINKAGE	2-3% length 4-5% width	SWATCH	(See classroom testing)
FLAMMABILITY	(See classroom testing)	SWATCH	Machine wash 40C, tumble dry, iron on back of printed fabric
CARE	Machine wash 40C, tumble dry, iron on back of printed fabric		
LIVING		BACKRAM	
NAME	Ivory Diamond Ultra curtain living LINGDIAUL	SWATCH	White Stiffened single sided fusible backram EUF300
MANUFACTURER	A & C VALMIC	SWATCH	EU Fabrics
METERAGE	0.7	SWATCH	2.5
WIDTH (m)	0.3	SWATCH	0.91
COMPOSITION	100% cotton	SWATCH	100% cotton
CONSTRUCTION	Sateen weave	SWATCH	Plain weave soaked in sizing agent
WEIGHT	123g/m <sup>2</sup>	SWATCH	300g per linear meter
LIGHT INTERFACING		HEAVY INTERFACING	
NAME	Vlieseline light iron-on interfacing F220	SWATCH	Vlieseline Firm iron-on interfacing H320
MANUFACTURER	Vlieseline	SWATCH	Vlieseline
METERAGE	0.7	SWATCH	1
WIDTH (m)	0.3	SWATCH	0.92
COMPOSITION	100% polyester	SWATCH	100% polyester
CONSTRUCTION	Bonded	SWATCH	Bonded
WEIGHT	43g/m <sup>2</sup>	SWATCH	63g/m <sup>2</sup>



PLEAT BOW x4

SKIRT x4

L	16.5
M	18
N	7
O	24
P	24
Q	24.5
R	24
S	20.5
T	11.2
U	14.5

ALLOWANCE 2cm

THREAD Black polycotton on fabric #1 & DTM acrylic on fabric #2

FASTENINGS 7" open end herringbone nylon DTM zip (left bodice seam)

COMPONENTS 7" polyester riglene boning (inserted into bodice side sea)

CONSTRUCTION Ivory polycotton satin in bodice (bagged out - bodice)

LINING All iron on - light in bodice, heavy in pleats, buckram in sk



# Princethorpe Politics

Toby Pearton summarises the recent Lower Sixth trip to Warwick Court House for the EYPUK debates.

'Princethorpe Politics students were fortunate enough to have the opportunity to compete in the European Youth Parliament Regionals Debate. The event took place in the historic Warwick Court House where we spent the day debating topical issues of the 21st century – such as the gig economy, suicide tourism and several other contentious issues. The day was thoroughly enjoyable as we were given opportunities to propose, oppose and have live debates, where various schools could ask and answer questions on these emotive issues. The structure of all debates mirrored the proceedings inside of Parliament, making it as engaging and exciting as possible. All students had a fantastic day, developing various skills and growing confidence in public speaking. We would like to thank Mr Lyttle who arranged this opportunity for them'.

Mr Lyttle would like to add that he is incredibly proud of the way the eight Lower Sixth Students conducted themselves at the event, showing real engagement with the debates and forging new connections with other students from different schools. They represented Princethorpe College impeccably and the event organiser came to speak to him afterwards commenting on how well the students engaged and the strength of their debate. A handful of students have been asked to come back to the EYPUK, by the organisers, in the future due to their fantastic contributions.

**Well done everyone.**





# Art@PC

Upper Sixth art students Izzy Dardis, Tillie Benford and Grace Leigh have produced these wonderful Personal Investigation paintings. Inspired by photographs the students have taken themselves, the paintings showcase where their artistic journey has led them at the end of the Lower Sixth going into the Upper Sixth course.



By Izzy Dardis, U6



By Tillie Benford, U6



By Grace Leigh, U6

## da Vinci Design



This year the Lower Sixth A-level Product Design students were set the challenge of designing and creating a tensegrity product.

This phenomenon employs forces of tension to suspend components. Sixteen-year-old Marcus Critchley has worked with great independence, skill and flare to design and make this prototype Tensegrity Table. Marcus used welding, laser cutting and finish to create a professional quality product that defies the eye.

Great work Marcus.



# A MESSAGE OF BALANCE FROM SPACE SCIENTIST, DR SUZIE IMBER

As the Princethorpe community will know, we use Professor Joseph Renzulli's three-ringed concept to inspire our pupils to unlock their potential and we name the programme *da Vinci* after an icon of the Renaissance ideal which seeks to embrace all knowledge and intellectual, artistic, social and physical development as fully as possible. The programme activities aim to encourage all pupils to commit to practising skills (especially those they find difficult) until they master them and to think outside the box and to be innovative. This term's guest speaker, Dr Suzie Imber, was a wonderful example of someone who does just that and helped to show how these three traits can lead to exciting opportunities, finding solutions to vital world issues and to a life well lived.



In her *da Vinci* lecture on Monday 31 January, Dr Imber talked to us about her life and work as a space scientist. She gave us an insight into her participation on the BBC 2 series *Astronauts: Do You Have What it Takes?* during which she and eleven other candidates were put through astronaut training with NASA astronaut Chris Hadfield. Suzie endured challenges such as taking her own blood, speaking Russian while in a centrifuge at 5g and carrying out emergency procedures on the NASA undersea astronaut training facility, emerging victorious as the overall winner.



Now, as an Associate Professor of Planetary Science at the University of Leicester, Dr Imber specialises in space weather and she talked us through how explosions from the Sun travel through the solar system and impact the planets, in particular the Earth and Mercury. Space weather has profound impacts for our modern-day society and has been added to the government's national risk register, having the potential to disrupt power grids, telecommunication systems and GPS systems, as well as damaging spacecraft instrumentation and posing a hazard to astronaut health.

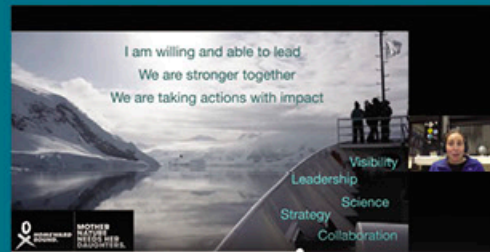
A true polymath and role model for Princethorpe's *da Vinci* programme, Suzie was an England U21 lacrosse player, an elite rower, and is now a high-altitude mountaineer. She has written computer code to automatically identify mountains in South America and found hundreds of mountains that didn't exist on previous lists. She sets off annually to scale these incredibly remote, un-climbed mountains, exploring new regions of our planet and even discovering sets of Incan ruins on the summits.

Suzie's advice to those seeking to flourish in life and work was to be tenacious, resilient, determined, and balanced. She encouraged us to see the bigger picture and to consider that whilst work and study is important, doing other things outside of work is just as important and makes us more rounded and better at our work. Finally, she promoted an idea that not everything has to be perfect. Sometimes good is good enough and we should stop at a point where things are good rather than agonise over an unattainable perfection. Wise words indeed.

It was such a privilege for us to hear Suzie speak about her life as a space scientist and we are delighted that so many of you were able to join us on the night. If you missed the talk, or would just like to hear it again, please follow the link posted on the *Flagpole*.



"SUZIE'S ADVICE TO THOSE SEEKING TO FLOURISH IN LIFE AND WORK WAS TO BE TENACIOUS, RESILIENT, DETERMINED, AND BALANCED."





# SUPER SPANISH

Year 7 pupil, Oscar Singh, has created an interactive poster, including recordings of himself reading out the sentences in a beautiful accent. How creative of him! His teacher, Mme Galano, is very impressed! Well done!

**Hola!**  
Yo me llamo Oscar.

Mi padre se llama Bil.  
Mi madre se llama Jodie.  
Tengo dos primas. Mis primas se llaman Evie y Maisie.

Tengo once años.  
Mi hermana se llama Laila.  
Tiene nueve años.

# POPULAR MUSIC

Year 10 have been studying Popular Music, which is an Area of Study 4 from GCSE Eduqas Music. Pupils looked at the development of the genre and the typical stylistic features then wrote their own songs. Follow this link to listen to a brilliant song written by Fynn Walker.

TO LISTEN



SCAN ME

Year 8 student, Ariana Gray, has produced some impressive responses under exam conditions and was awarded full marks for every question. This is a fantastic achievement; her answers show clear knowledge, and she develops her explanations. Her source analysis is highly developed, and she uses her knowledge of the events to explain how useful this image is to us; she even points out its purpose as propaganda for Elizabeth and how we need to take this into account. Her extended answer included a detailed and considered analysis in the conclusion. **Well done Ariana!**

Year 8 History Examination, November 2021  
Time Allowed - 35 Minutes  
Part 2 - Evaluation of Source Material (8 marks)  
You are advised to spend 10 minutes on this question.



This is a picture was published in John Foxe's Book of Martyrs, in 1563 (during the reign of Elizabeth I). John Foxe was a protestant. The source depicts the burning of two devout protestants, Latimer and Ridley, during the reign of Mary I.

Q2. How useful is this source to historians studying the treatment of protestants during Mary's reign?

You must use your own knowledge to support your answer.

Make sure you refer to:

- The content of the source
- The Provenance (who wrote it and when) and Purpose (why the source was produced)

Show Know

# History WAGOLL - What a Good One Looks Like

Year 8 History Examination, November 2021  
Time Allowed - 35 Minutes

he could gain a lot of money to help him after expensive wars. But of course he would've also wanted to break from Rome so he could get a divorce and marry his love - Anne. However, another explanation as to why Henry broke from Rome could be money. **Fabulous answer!**

15/15  
3/5

Year 8 History Examination, November 2021  
Time Allowed - 35 Minutes

get married! These things suggest that Henry & Anne were really in love, and so he really wanted to break from Rome so he could get a divorce and marry his love - Anne. However, another explanation as to why Henry broke from Rome could be money.

Financially, a major reason why Henry may have broken from Rome could be money. He needed money after wars against France and the Church was rich. By becoming head of the Church, Henry could release the tithes and sell expensive manuscripts to help him with his wars. So, money to be broken from Rome is a way to gain financial resources. It's also very important though that Henry must also remember though that Henry and Anne's love was also important to Henry.

So in conclusion, I believe that having an expensive heir was an important reason Henry broke from Rome but not necessarily the only one. There is a lot of evidence that he had a falling relationship with Anne Boleyn, and naturally, relationships with Anne Boleyn are very important to most people. He may have wanted a divorce more for that reason. Mary could also serve as a reason why he broke from Rome as by selling expensive manuscripts and releasing the tithes himself.

Year 8 History Examination, November 2021  
Time Allowed - 35 Minutes

Part 1 - Knowledge and Understanding

Q1. Describe two features of Young Henry VIII. (4 marks)

You are advised to spend 5 minutes on this question.

- He was a good and devoted Catholic - he attended mass 3x a day and was a public supporter of the Catholic church - he even wore a book which shows evidence of his faith.
- He was a fine sportsman - he enjoyed a variety of sports, such as archery, wrestling, jousting and jousting. Evidence for this - he had a wrestling match with the King of France.

Year 8 History Examination, November 2021  
Time Allowed - 35 Minutes

Part 3: extended writing.

You are advised to spend 20 minutes on this question.

"Henry VIII broke with the Catholic Church in Rome because he desperately wanted a male heir to the throne." How far do you agree with this statement? (15 marks - 3 for SPQ)

It could be argued that Henry broke from Rome because he wanted a male heir. He needed a son to continue the Tudor dynasty, and his wife at the time was getting too old to have any children. He had failed to give birth to a healthy son. By getting a divorce, he could marry a young woman who would have a good chance of giving him a son. However, it could also be because Henry VIII wanted to be a powerful monarch. He had already broken with the Catholic Church in Rome, and he was determined to be a powerful monarch. He had already broken with the Catholic Church in Rome, and he was determined to be a powerful monarch. He had already broken with the Catholic Church in Rome, and he was determined to be a powerful monarch.



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