WEEK BEGINNING 6 JULY 2020

Welcome to the fifteenth issue of *The Westcliff Week*.

School Re-opening

Last week saw some significant steps towards the re-opening of society. In particular, the Department for Education (DfE) published guidance for schools in relation to preparing for September 2020. The guidance makes clear the intention for all pupils to return to school in September and WHSB supports that intention and is keen to welcome back all pupils next term. The DfE's guidance is lengthy and varies, depending upon the context of individual schools. My colleagues and I have reviewed the guidance and shall give it careful consideration in the days and weeks ahead as the situation unfolds and in the light of any updated information. It is our present intention to reopen the School to all pupils (subject to any further guidance) in September and we are currently working on our plans to enable this to happen.

The School shall continue to put the safety of its pupils and staff at the heart of its planning, whilst also seeking to quickly return to more normal working arrangements. This will take detailed planning and consultation and I anticipate that we will not be in a position to circulate the details of our plans until August 2020. This time will allow the School to revisit all aspects of its operation, including the construction of a suitable timetable to ensure it can provide high quality education on the School site, whilst also ensuring it complies with health and safety requirements to provide a safe and positive working environment for pupils and staff. I intend to write to all parents at the end of this academic year to provide an update on our planning although, as I have indicated, our final arrangements will not be published until August.

It has been wonderful to welcome back some of the Year 10 and Lower Sixth students in June and we look forward to seeing all pupils back in School in September. We also look forward to meeting our new Year 7 and Lower Sixth students who, up to this point, have received their induction to the School through virtual arrangements. I know that my colleagues, some of whom have been shielding, are also particularly keen to have the opportunity to once again engage in face-to-face teaching.

Appointments of House Captains and Vice Captains

I would like to take this opportunity this week to congratulate the newly appointed House Captains and Vice Captains (full details on page 3). I wish the Captains Matthew, Jacob, Stanley and Oliver and their Vice Captains every success as they take on their new roles and lead the competition for the Phoenix Cup next season. In the meantime, this year's House Championship reaches its climax next week. To paraphrase the Duke of Wellington, the competition is one of the 'nearest run things' we have seen for some time!

Celebrating the End of Term

Last week, I shared with the School details of a special edition of *The Westcliff Diary* which is due to be circulated later this month. This week, I would like to share details of a second exciting project underway to mark the end of the academic year. During recent weeks, a number of pupils and staff have been involved in filming a School video. The video is a documentary which tells the story of Westcliff High School for Boys - the School which has had to spend a large portion of its Centenary Year in lockdown. The video includes wonderful interviews with pupils and staff, as well as excellent video footage of the School. It also makes use of existing footage of past extra-curricular activities including drama, music and sport. In addition, it includes a number of new videos, such as the 'Leavers' Video' (including cameos from teachers), two new Music Department videos produced by our Director of Music, Mr Derrick, drama videos produced by Mr Jeffreys, Director of Drama, and very much more. The documentary is intended to last approximately 90 minutes and it will be streamed

on the final day of term, Wednesday 22 July. I shall provide further details in next week's edition of The Westcliff Week

Deadline for Final Issue of *The Westcliff Week*

Next week's issue will be the final issue. It seems quite some time since we launched the first issue and it has been wonderful to witness how this weekly magazine has grown and developed. Once again, I would like to extend my gratitude to all the contributors to *The Westcliff Week*. I would like our final issue to be a special one and I would encourage as many pupils and staff as possible to send in their contributions before the deadline on Friday this week. I know that many in our School community enjoy reading each week's issue and it has been an important means of helping our community stay connected this term.

I give all pupils and staff my best wishes for the week ahead.

Headmaster

THE HOUSE SYSTEM: WE ARE NEARLY AT THE FINISHING LINE!

The current House Scores remain nail-bitingly close this week (see photograph of the Centenary House Scoreboard opposite). Please do your upmost to help your House by participating in as many events as you can over the next seven days.

House Points and Senior Commendations will still be awarded using the ePraise system to students who do their best, and these will also go towards your House totals. The Phoenix Cup will be awarded on Monday 13 July, so there is still time to change the rank order!

Latest House Points Score, Friday 3 July 2020

There are many House events in which you can participate this week, and those are listed below. Please do take part in at least one, as your point could make the difference!

- House Minecraft – Bed Wars and Egg Wars: see page 12 and information posted on Teams. You may also contact Luke Swain, 12G (Harrier House) if you are interested.
- House Countdown Round 7: see page 14.
- Centenary House Chess: see Issue 14 (page 12) published on the 29 June and information posted by Mr Yeo.
- House 50 Word Challenge: see Issue 13 (page 13) published on the 22 June and information posted by Mr Lilley.
- House Impossible Quiz: see Issue 13 (page 13) published on the 22 June and information distributed by Mr Lilley.
- House Fortnight: see Issue 12 (page 13) published on the 15 June and information posted by Mr Yeo.
- House Zoo Virtual Fieldtrip: see Microsoft Teams and recent emails sent.
- House Ditloid Quiz: see Issue 9 (page 14) published on the 25 May.
- House Computer Games: see Microsoft Teams and emails sent.
- PSHEE House Gardening: see Issue 4 (pages 8 & 9) published on the 20 April.
- PSHEE House Butterfly Survey: see Issue 6 (page 20 published on the 4 May.
- PSHEE House Housework: see Issue 7 (page 16) published on the 11 May.

- Natural History Museum House Breadth Studies Virtual Fieldtrip Report: see Issue 7 (pages 10-11) published on the 11 May.
- House Find the Connections Competition: see Issue 6 (page 11) and Issue 7 (page 15) published on the 4 May and 11 May respectively.
- House Centenary PSHEE Photographic competition: see the House Microsoft Team and emails for details.
- WHSB Centenary House Quiz: see the House Microsoft Team and emails for details.

Centenary Globally Aware House Citizenship Project

Congratulations to everyone who entered the Centenary *Globally Aware* House Citizenship Project that closed on 1 July. It was fascinating to hear your views about the proposed nuclear power station, Bradwell B.   This was a Stage 1 Consultation, which is a vital component of the planning process. Your responses have been gratefully received and do demonstrate that you are interested in the world around you. In particular, I would like to mention Edili Akpala, 12I (Osprey House) who wrote a detailed and well-balanced argument that was clearly evidenced and researched. Your responses and feedback towards this consultation, along with technical and environmental studies, will assist with development of the proposals for the Stage 2 consultation. I will keep you informed as to when this will happen.

House-Captains and Vice-Captains for the academic Year 2020-2021

The new House-Captains and Vice-Captains for the academic Year 2020-2021 have now been selected. It was most difficult for the School to make decisions on the appointments to these positions, as the calibre of applicants was extremely high indeed. Thank you to all those who did apply; each one of you is a credit to WHSB. Congratulations to those students who were

appointed, and we are pleased to share the details with you this week.

OSPREY

Matthew McCutcheon 12B (House Captain)

Edili Akpala 12I (Vice Captain)

Ethan Moula 12C (Vice Captain)

KESTREL

Jacob Shulton 12H (House-Captain)

Adeola Kash-Oladosu 12G (Vice-Captain)

Aimee Smith 12D (Vice-Captain)

MERLIN

Stanley Upton 12F (House-Captain)

Conor Gibbons 12D (Vice-Captain)

Molly-Ann Ababio 12G (Vice-Captain)

HARRIER

Oliver Hale 12F (House-Captain)

Luke Swain 12G (Vice-Captain)

Alexander Giffin 12E (Vice-Captain)

The School will discover more about these new House-Captains and Vice-Captains in due course. If you check the House Team, on Microsoft Teams, you will see some short biographies published in the coming weeks.

Remember, every point does count, so do continue to be collaborative and supportive. We are nearly at the finishing line!

Mr R Barber, House Coordinator

MATHEMATICAL BAKING: (S)CONIC SECTIONS

Q: What is a mathematician's favourite teatime treat?

A: A sCONE

It all started with a mathematical joke, and an article about food related mathematics.

Tangram puzzles (with or without toast) and hexaflexagons (with or without tortillas) were things I had previously enjoyed making with my classes, so I was interested to learn more.

It appears I am not alone at this time in having rediscovered my enjoyment of baking. One of my favourite, and very simple, things to bake are scones. I remember baking them with my grandmother from a very young age. Therefore, when I saw a suggestion that a conic section made from scone dough should be called a sconic section I could not resist trying it for myself.

Do you know what a conic section is? Consider the Lower School Problem of the Week from *The Westcliff Week* on 29 June.

A large solid cube is cut into two pieces by a single straight cut (can be diagonally, horizontal, vertical, etc). How many of the following four shapes could be the shape of the cross-section formed by the cut?

This is in essence a sectioning of the cube. We can do this with any solid shape. For example if we do the same to a sphere we will always get a circular cross section. Can you visualise this?

A cone is a particularly interesting shape to consider, as (strictly speaking, only if we assume we have a double cone, of infinite height, but we will not concern

ourselves with that here) we get one of four very interesting mathematical shapes known as the conic sections.

You will all have heard of at least some of these. For GCSE you are expected to know the equation for the **circle**, as well as use the circle theorems, and you will also learn about the **parabola** such as the fact that they are symmetric about a line passing through their vertex. You may have learned in Physics that Earth orbits the sun in an **ellipse,** and that telescopes can make use of both parabolic and **hyperbolic** mirrors. However, it is only in Year 13 Further Mathematics A level that you would be expected to know that these 4 shapes can be considered as sections of a cone and to understand more about other definitions, as well as the geometry and equations of them.

Back to the baking: Firstly we need to bake a cone shaped scone. Well this is possible, using the cone shaped paper cases you sometimes find at water coolers. You will need somewhere to stand them for cooking. I found Rowse honey jars to be the perfect size for my cones.

They needed cooking for longer than usual, which I should have expected since glass is a relatively poor conductor of heat, and in future I would lightly oil the insides of the paper cones as the cases were sticking when I peeled them off. I also needed to cut the tops off in order that they would stand upright. (These discarded pieces can be paired up to give mini versions of the more usual, almost cylindrical scone.) I would also fill the cases more next time to give me taller (s)cones.

Now to slice them to reveal the conic sections.

For the **circle** you need to make your cut horizontal.

For the **ellipse** you should cut slightly off-horizontal, making sure the cut can be fully contained within the size of the cone you have. (as we cannot bake an infinitely tall cone in a finitely tall oven!)

For the **parabola** you need to cut parallel to the 'slope' of the cone (this means it would not intersect with the 'upside-down' cone on top)

For the **hyperbola** the angle of the cut will be between the slope one way and the slope the other; it could be vertical but does not have to be. This is the only one of the four that would intersect with the upside-down cone.

As you can see, they were not perfect by any means, and the ellipse could have done with 'stickier' jam, but I had fun trying it, and I hope you will too.

They were, however, truly delicious and I plan to bring some to school as a tasty introduction to the topic for my further mathematics class next year.

Further thoughts

We could use alliterative toppings: **c**ream for the **c**ircle, **e**lderflower jelly for the **e**llipse, **p**reserve for the **p**arabola, **h**ummus for the **h**yperbola…… in fact, that is a good extension question: Why might we choose eccentric toppings for these scones, and why should the hyperbola have the most eccentric one?

Mrs C Young, Teacher of Mathematics

UNIVERSITY PREPARATION FOR PHYSICS, MATHEMATICS AND ENGINEERING

FINAL SESSION – A VERY USEFUL MATHEMATICAL TRICK

Lockdown Learning. What does it mean for you? I wish to use this article to pay particular tribute to a doughty and determined group of Sixth Form Students who joined a Team with the express intention of using the period of independent learning to step up a gear and tackle concepts more normally taught at University.

The students were keen to keep their brains in good order, but also to prepare themselves for their future courses. The team included Year 13 students, but also Year 12 students ready for a challenge.

Topics covered (many at the request of the students) included Vector Calculus, Fluid Mechanics, Astrophysics, Fourier Transforms and that essential University workhorse – the use of Complex Exponentials to describe waves and oscillations.

There was particular enthusiasm for a session on Lagrangian Mechanics, which I found particularly delightful. When I was an undergraduate, it was not even compulsory in the degree course. I am particularly grateful to Mr Dalby for joining sessions, and for leading the Astrophysics section.

We have one session remaining. I wish to use the time this coming Friday (10 July at 1.00pm) to show a trick I once learned serendipitously, and which has enabled me to solve quite a few research problems with more ease than I deserved. It involves exponentials and matrices and can solve (more or less) any set of coupled time-dependent differential equations of any order. I have never found it in a textbook. It can be used analytically (with pencil and paper) but is easy to adapt for a computer.

Existing members of the Team are welcome, and if you wish to join too, please use code **6gaeuc5** to join.

Finally, may I wish all members of the Team a restful summer holiday, and congratulate them on their enthusiasm and dedication. I hope that they find this makes some of the topics they face in the years to come a touch more familiar.

And if you need more reading, why not try the legendary Feynman Lectures on Physics which, thanks to the California Institute of Technology, are free to read online at https://www.feynmanlectures.caltech.edu/.

Dr A Machacek, Senior Master: Academic Studies

MUSIC BOX: A WORK A WEEK

Mozart is a composer who was famed for his elegance and wit, often wearing lavish and expensive clothes to rehearsals (including a gold-laced hat), while certainly not above making the occasional rude joke (he wrote a song that translates to "kiss my bum"). This odd duality extends to his music, and his Piano Concerto No. 21 is an excellent example. This is music that can at once be beautifully graceful while charmingly cheeky.

The opening sees the orchestra playing a march that is so serious it is almost funny, and one can imagine a po-faced Mozart conducting the orchestra with a stern briskness, a mood that is totally undermined by the subsequent melodies: Sweet, lyrical phrases mixed with comical call-and-response. It is clear that Mozart is playing around – this is not a serious work (unlike his Requiem, covered in a previous edition of *The Westcliff Week*).

Despite this, like all of Mozart's work, there is a depth to his artistry that can be found under the glimmer of the music's surface. Firstly, there is the technical challenge: When the piano joins in after the traditional orchestral introduction, the pianist must perform music that is, in the words Mozart's father, "astonishingly difficult". Then there is his manipulation of texture – refusing to stick to the classical template of just a melody and accompaniment, Mozart varies how the instruments interact and react with one another in a way that almost makes the music sound

like a competition for dominance. It is amazing that the work still sounds wholly cohesive, a unique vision that somehow manages to pack so many contrasting emotions in such a short space of time.

But then this is the composer who was able to count Haydn among his closest friends, courted Emperors and had the young Beethoven trailing his heels, while still maintaining a totally inappropriate sense of scatological humour. Mozart was and always will be an enigma.

Listen out for: The beautiful and famous second movement.

Mr T Derrick, Director of Music

THIS WEEK IN HISTORY

THE BIRTH OF THE NATIONAL HEALTH SERVICE (NHS)

It was the birth of an institution under whose auspices so many of us have, in turn, been born: the National Health Service.

On 5 July 1948, the charismatic Health Secretary, Aneurin Bevan (a job previously considered to be a rather lowly position) officially launched his grand, profoundly ambitious, and at the time, highly controversial project, a National Health Service for the entire British population. It was to be funded by taxation and free at the point of delivery, under which all sorts of people - doctors, nurses, surgeons, dentists, opticians to name but a few - would be brought into one single organisation.

The launch began in Manchester, at Park Hospital (known now as Trafford General). It was then that a thirteen year-old girl, named Sylvia Beckingham, was admitted to the hospital for a liver condition, thereby becoming the first ever patient to be admitted on the NHS.

Plenty decried the scheme. Some even deemed it the onset of 'National Socialism', so soon after the defeat of the Nazis in Germany. Nor were opponents simply Conservative Party members; plenty of people in the Labour Party were hostile too, as well as many doctors, the mouths of whom, Bevan remarked, he had "stuffed with gold" in order to secure their cooperation.

Bevan made two major predictions, the first accurate and the second seriously inaccurate: he was confident that the initial rush upon NHS services would wane in the short-term; and he was sure the high initial costs of the service would decline as the population became healthier.

As we all know now, the spectacular success of the NHS contributed to increasing British life expectancy, while the cost of new medicines and treatments, as well as the number of NHS employees, sky-rocketed. Far from declining, the overall bill has soared. So while affection for the institution has grown, funding of it continues to be a challenge.

Mr S Neagus, Teacher of History

ENVIRONMENTAL SOCIETY CENTENARY HOUSE CHALLENGE

Having a clean and tidy work environment enables the best quality and highest quantity of work to be completed and it is the same with outside life. Having a good natural environment is crucial in ensuring that life may continue in a productive manner. It is our responsibility to take care of our surroundings whether that be through conservation work to restore or maintain species and habitats, clean-up projects or research. Humans have made a devastating impact on our planet through burning fossil fuels, building, deforestation and farming. WHSB's Environmental Society aims to spread awareness of these effects and helps students to understand what we, as individuals, can do to reduce our carbon footprint.

The Eco-Council would love to know what you have been up to during lockdown to help the environment. Examples of valid entries could include: recycling, creating posters, using your social media platform to spread awareness, writing to your local MP or councillor about environmental issues, or litter-picking. If you have not done anything that has a positive impact on the environment yet, then do it now!

Belfairs Woods, in close proximity to WHSB, is a local conservation area

One of the simplest acts to improve your local area is to litter-pick. Litter picking kits are usually available either for free or to rent for free from your local council. These include thick gloves and a litter-picker, so that you can safely collect and dispose of rubbish. It is very important that you use this safety equipment and follow litter-picking guidelines from your local council. This includes the rules that you must never pick up any sharps or needles and should report the location of any to your local council. You must also thoroughly wash your hands for at least 30 seconds when you have finished.

An example of the litter-picking kit that Mr Barber received from his local council, free of charge

Please send your entries, whether that be litter-picking or anything else, by joining the Microsoft Team called 'Environmental Society Competition', and posting your photographs there.

To accompany your photograph, please write several sentences to describe why you carried out the task and how it helps the environment. If you could also link this to the WHSB Learner Profile and Centenary Year, then that would be ideal. The judges at the Environmental Society will choose their favourites. First place will receive a prize of six House Points, second place will receive four, and third place will receive two. **The deadline for entries is 12th July**.

Mr Barber, Head of Breadth Studies; Sophia Jones, Year 13 Chairperson, WHSB Environmental Society & Eco-Council

THE WHSB LOCKDOWN GALLERY CONTINUES TO EXPAND

I hope readers are safe and well, and that you have all been logging into the WHSB Student Art website to enjoy the work completed by the WHSB Art community. If not, why not try visiting the website today to enjoy an excellent exhibition which is free of charge!

This week, I have been inspired by Christopher Parkinson, 9N to create another extension to the Lockdown Gallery and this will be exclusively for photographs taken by members of the School community during lockdown.

Christopher is this week's star of the gallery and he also has the privilege of being its founding member.

Through this Issue of *The Westcliff Week*, I would like to invite members of the WHSB community – students, staff and parents - to send in photographs that show the beauty of this world in which we live, or perhaps images that reflect the lockdown period, so that we have a permanent memory of this extraordinary period of time in our lives. The Photographs must have been taken during this time period to be considered for selection in this prestigious Gallery.

When asked what inspired him, Christopher explained, "The colour - the flowers look really vibrant. I also take lots of photos using the Sun - most of my photos make use of the Sun, or they contain a lot of colour".

Students and staff can send Lockdown Photographs to Mr Sinnott via TEAMS, and parents via his school email address below. sinnottt@whsb.essex.sch.uk

Dancing colours, by Christopher Parkinson (9N)
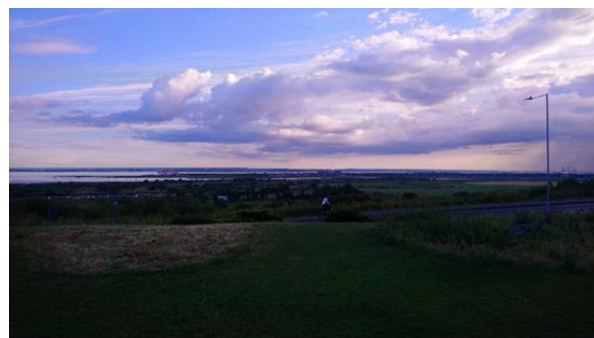
Above us only Sky, also by Christopher

https://sinnottt.wixsite.com/whsb-student-gallery

Mr T Sinnott, Head of Art

GREAT LEADERS WITH HEAD BOY, BEN JOHANSON

SULEIMAN THE MAGNIFICENT

Suleiman – the tenth Sultan of the Ottoman Empire – has the epithets the Magnificent and the Lawgiver. His 46-year rule saw the Empire expand significantly, forging its increased eminence in European politics, ruling over 25 million people. The Ottoman Golden Age of artistic, literary and architectural flourishment was presided over by Suleiman. Did he truly bring the Empire into prosperity?

Born in 1494, Suleiman spent his early days studying a large volume of topics. He befriended a slave named Ibrahim, a Christian convert to Islam, who would later become his Grand Vizier. After his ascension to the throne in 1520, Suleiman became a great patron of the arts. He shifted cultural focuses away from Persian styles to devise a distinct Ottoman style. Furthermore, Suleiman wrote an array of poetry, alongside overseeing a great number of architectural projects.

After suppressing civil unrest, Suleiman turned his eyes to Hungary, the kingdom that acted as a vanguard for Europe against the Ottomans. He targeted Belgrade; a city Mehmed II the Conqueror had failed to capture. Fortunately for Suleiman, civil discord was replete in Hungary (with a king younger than 14), whilst Europe was preoccupied with the Protestant Reformation and extensive wars. Belgrade, defended by 700 men, was conquered. Subsequently, Suleiman turned to Rhodes, the island fortress which facilitated Christian domination of the Mediterranean. Rhodes' 7,000 defenders withstood the invasion of 100,000-200,000 Ottomans. The island eventually surrendered, but at the cost of 50,000 Ottoman lives; possibly even more.

In 1526, the Ottomans invaded Hungary again, defeating the vastly outnumbered Hungarians at Mohács. This resulted in the death of the Hungarian king, precipitating significant conflict in the region, as Ferdinand – brother of Charles V, the ruler of large swathes of Europe – claimed Hungary. Eventually, Suleiman advanced upon Vienna, but was repelled: his first defeat. In opposition to Charles, Suleiman attained an alliance with France. Through this alliance, Suleiman annexed territory in northern Africa.

Suleiman's conflicts with the Safavid Empire from 1532-55 expanded the Ottomans east. Suleiman also secured control of the Indian Ocean, defeating Portugal. However, by 1565, the Ottomans lost momentum, with major losses in the failed invasion of Malta.

Perhaps Suleiman's greatest accomplishment was his legal reform. He compiled all the judgements issued by previous Sultans into a single legal code, erasing duplications and deciding between contradictory

components; while keeping them in accordance with Islamic law. This code would last for over 300 years. In addition, the conditions of Jews in the Empire was enhanced, alongside new criminal and police legislation, which prescribed fines, but reduced the quantity of stringent punishments. Nevertheless, slavery persisted under his rule, especially the forced conscription and conversion of young Christians into the Janissary corps (elite bodyguards). However, Janissaries experienced great political and social power.

Suleiman's familial life came under significant strain, with succession issues constantly arising with his sons born of two different mothers. Mustafa, his eldest, was supported by Ibrahim, who was becoming progressively more powerful. Therefore, Roxelana, his favourite partner became increasingly concerned at the survival of her own sons; the Ottoman tradition was to murder the brothers and nephews of a new Sultan to prevent domestic animosity. After being convinced Ibrahim was a threat, Suleiman had him assassinated. Mustafa was murdered by Suleiman's men soon after, along with Mustafa's sons. This left his sons by Roxelana in a contest for influence. After the younger brother's defeat, Suleiman executed him and his four sons.

In 1566, Suleiman went on one last military expedition to Hungary. He died whilst travelling. Suleiman cannot assume all the credit for his accomplishments, as he was assisted by a collection of deft advisors. Nevertheless, in my opinion, Suleiman was a great leader who appointed effective administrators and commanders, and ushered in cultural advancement, in spite of familial turmoil.

Ben Johanson, Head Boy and A Level History student

INFINITY IN ACTION: ARISTOTLE'S WHEEL PARADOX

Consider this: you have a circle (circle A) and you stick another smaller circle (circle B) on top of it, such that they have the same centre point. Circle B has a smaller radius, so its circumference is also smaller than circle A's. Therefore, you would expect it to travel a smaller distance per rotation than circle A. However, in Aristotle's Wheel Paradox this is not the case; when the whole body (circle B stuck on top of circle A) is rotated once, both circles complete one full rotation and both circles travel the same distance.

How is this possible, when clearly circle B has a smaller circumference? Well, you may say that circle B is in the air so it travels a greater distance, but imagine putting up a ledge such that both circles have a surface to travel on and they still share their centre points, and the same thing happens: both circles travel the same distance per rotation. Do you not believe me? You can try it out yourself by making and gluing such circles together from scraps of cardboard or different sized tapes.
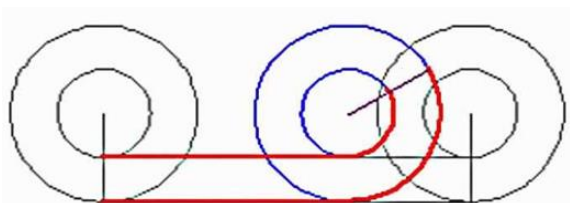
This peculiar problem was posted onto the Middle School Mathematics Society page on Microsoft Teams and there were many interesting observations made, but still no definitive conclusion. As mentioned previously, there was a speculation that as circle B is not touching a surface it must be travelling a greater distance to compensate for its shorter circumference. However, this is not the case because if a ledge is put under circle B such that both circles have a surface to roll on, the same thing happens: in one rotation, they both travel the same distance, so does this mean their circumferences are the same? (They clearly are not…).

There was another fascinating theory about perspective (which ties in nicely with Einstein's theory of Relativity): imagine running 20m inside a moving train. From your perspective you have only travelled 20m, but from someone watching from outside the train you have actually travelled 20km. Likewise, the rotation of the smaller circle is irrelevant to the distance it travels; whether it rotates or not has no effect on the distance it travels. Whilst this may be a good explanation for why the two circles travel the same distance, it still does not manage to explain how circle A and B seem to travel the same distance per one rotation, which clearly seems impossible as circle B has a smaller circumference.

Another idea of simplifying the problem to polygons was suggested: polygons (say, decagons for example) replace the circles from the original problem, such that there is a smaller decagon stuck on top of a bigger decagon and they have a common centre point. There is also a ledge on which the smaller decagon can travel. When the larger decagon is rotated and the path on which its perimeter travels is marked, the path is a straight solid line equal in length to the

decagon's perimeter. However, when the smaller decagon's path of travel is marked, it has gaps in it which add up to the difference in perimeter of the two decagons. As the number of sides increase, the number of gaps increase, but the gap distance decreases.

Applying this to the case of the circle: a standard definition of a circle is a polygon with infinitely many sides, so the smaller circle must be leaving an infinite number of gaps in its travel path that are infinitely small. Many people would consider the phrase infinitely small to be the same as zero. This means that as the smaller circles leave an infinite number of infinitely small gaps, they add up to 0, so it must have the same circumference as the larger circle, as the sum of the gaps is the difference in circumferences.

This clearly is not the case as the smaller circle most definitely has a smaller circumference than the bigger circle. As Zeno found out in ancient Greece, a value cannot be assigned to "infinity", it can only approach it. Furthermore, a polygon with infinitely many sides is not a circle; it is just a better approximation of a circle than the polygon before it that had 1 less side. The bifurcation point (a point at which a polygon becomes a circle) does not exist, so claiming a polygon with infinitely many sides is a circle is an oversimplification.

Probably the best way to try and explain this paradox is with the idea of slippage. As the larger circle rotates, the smaller circle is continually slipping along the surface, so that a small part of its circumference is being stretched out to a longer line, and the ratio of this slippage would be the same as the ratio of the radii of the circles.

There are several alternative solutions which may make more sense to you, so be sure to explore this problem and read the Wikipedia page (which presents 3 solutions). It is an interesting thought experiment; Aristotle and Zeno struggled to handle the idea of infinity in their day as they sought to assign a value to it. We at least appreciate that, for example, a polygon with an infinite number of sides is not the same as a circle, and that an infinite number of infinitely small slippages can be non-zero.

Bhavy Metakar, 10W

GARDEN VOICES

The bird that the UK public continues to vote as its favourite bird each year, is the subject of this week's *Garden Voices*.

The Robin is all things to everyone. He is a gardener's friend; waiting for the upturned soil to provide his meals, and naturally keeping his side of the bargain by keeping down aphid numbers. He is cocky, sure-footed and a loved character, seen on most Christmas cards. In this same season, he keeps our hearts alive by providing rich colour in a garden usually dominated at this time by grey, brown and whites. His song is melodious, instantly recognizable, and hard to ignore. Both sexes sing throughout the year, but there is an upturn in this activity in spring, when the male is trying to attract a mate. In the autumn, however, both are desperately trying to protect the boundaries of their garden domain.

The numbers of robins in autumn increases in the UK by a mainly Russo-Scandinavian invasion of birds, and the battles often seen between rival males in October and November is likely to be between the resident bird and these northern usurpers. Modern research has found that male songs are more complex, and that male and female robins know the gender of the singer from their song. Every generation has fallen in love with the song of the Robin. It is a balm for the soul to listen to these fluid cadenzas in our gardens.

https://www.youtube.com/watch?v=Nrw9xPCFtYw

Dr J Theobald, Teacher of History

YEAR 7 VIRTUAL QUIZ NIGHT

We would like to remind pupils in Forms 7W and 7C that their Virtual Quiz Night will take place this week at 6.00pm on Tuesday (7W) and Wednesday (7C). Your Quiz will be hosted in your Form Group Team using a group call and it will run for an hour or two.

Quiz nights for the other Year 7 Forms have already taken place and, thanks to the Form Captains who have been hosting these events, they provide an

excellent opportunity for the Form Groups to virtually "meet-up" outside of School time.

Questions this week will be on various topics ranging from celebrities to logic and, of course, there will be a General Knowledge round. No doubt everyone will find a round that they can enjoy across the evening.

Quiz Nights this Week
7W – Tuesday 7 July, 6.00pm

7C – Wednesday 8 July, 6.00pm

We hope that most of you will be able to join us for your Form Group Quiz. It will be a fantastic chance to catch up and have some fun.

Miss C Dole, Year 7 Progress Leader

MR DERRICK'S FILM CLUB

Steven Spielberg is best known for his blockbuster movies, with killer sharks, dinosaurs and aliens forming a large part of his resumé. Because of these large-scale event films, his smaller and more intimate work can fall through the cracks. Bridge of Spies (12) is a historical drama telling the story of a lawyer (Tom Hanks) who is given the job of freeing an air-craft pilot shot down over the Soviet Union. To do so he is required to work with captured Russian spy Rudolf Abel (Mark Rylance), who is to be exchanged across the eponymous Glienicke Bridge in Berlin.

The chemistry between Hanks and Rylance is what propels the film and, despite the complete lack of the supernatural or extra-terrestrial, Spielberg's expert craft is on show throughout. Rylance had been avoiding Hollywood for decades, having rejected Spielberg years before, preferring the lights of the British stage. The director quickly forgot about this quirky English actor until he saw a performance of Twelfth Night in 2012 and, being "completely smitten" with the performance, went backstage to reconnect with Rylance: "I got the sense, watching Mark talk, that if he accepted the role of Rudolf Abel, he would just completely disappear into it." Thankfully, Rylance agreed. His performance was described by many critics as the best of the year. The Academy agreed, awarding him Best Supporting Actor.

The film is streaming on Netflix. Watch-alongs take place every Thursday from 7.30pm, followed by a discussion on the Film Club Team. Staff and students (aged 15 and over) may join the group by using the code **db1v6ym**.

Mr T Derrick, Director of Music

WEEKLY WATCH WITH MISS WILLIAMS

THE AZTECS CONTINUED…

This week's documentary suggestion builds on the points raised in last week's podcast. It delves deeper into the finding of the '120,000 skulls' and gives us further interpretations on who the Aztecs were, how they lived and why they no longer inhabit central Mexico. So who were this lost civilisation? Watch the documentary to find out!

New members to the group are welcome. Please contact Miss Williams if you would like to join.

The Lost Pyramids of the Aztecs: Episode Two:

https://www.channel4.com/programmes/lost-pyramids-of-the-aztecs

Miss R Williams, Teacher of History

HOUSE MINECRAFT: BED WARS AND EGG WARS

Bed Wars is a team survival game on Minecraft. In Bed Wars, players spawn on an island and collect resources to obtain items such as swords, blocks, tools, and other special items. Players also have a bed that they must protect, as the bed breaking results in players no longer being able to respawn when killed. When all players of a team are killed without beds, the team will be eliminated. The last team standing wins!

In Bed Wars and Egg Wars, players spawn in teams of up to four players, with eight or four different teams on separate islands depending on the modes. These islands have a bed in front, and a resource generator. This resource generator spawns iron and gold, though it can be upgraded to spawn emeralds in the upgrade shop. Players can purchase different items in the shop, with categories such as: blocks, melee, armours, tools, ranged, potions, and utility. These shops contain different items purchased with either iron, gold, or emeralds, with increased prices for stronger items.

This event will be hosted on the Windows 10 edition of Minecraft, also known as bedrock. This is available on PS4, XBOX 1 and Windows 10 computers, as well as iPhone and Android.

If you are interested, please join the House Minecraft Team. You will need to give your: forename, surname, House and Minecraft username to Luke Swain, 12G (Harrier House). Thank you to George Smith, 9C (also Harrier House) for this idea.

Mr R Barber, House Coordinator

MR MCGEE'S ALBUM OF THE WEEK

LINKIN PARK, HYBRID THEORY

What a time to be in Year 13. I have nothing but happy memories about the year 2000, well, mostly. My time in School was indeed formative but I was ready to take the next step; I was ready to go to university.

Upon arrival, this 'small town' boy from west Wales was stunned by the range of people's cultures and sheer liveliness of Cardiff, Europe's youngest capital city and, as with so many young people, he found himself.

To cut a very long story short, I found myself in a club called Metros (it is still there), an underground (literally) rock and indie club where I would eventually get a job behind the bar. I appreciate this is a roundabout way of getting to this week's album but it is important. Here, I discovered a whole host of new bands and singers I would go on to follow, one of which was Linkin Park.

A new genre of popular music had been creeping up on the UK for some time and in the year 2000 Nu Metal finally broke into the wider public consciousness. Born in the USA, Nu Metal fused the frenetic guitars of heavy metal, turntableism and rap from hip hop, and catchy tunes that shared a close relationship with bubble gum pop.

There is an inherent darkness to much of the Nu Metal output that stems from the experiences of its artists and Hybrid Theory is no exception.   Written from the heart of lead singer Chester Beddington, the album reflects on the issues he faced growing up in a dysfunctional household and the pressures it placed on him. Where Linkin Park differs from the rest of the genre is that the band's output contains no profanity, choosing a more eloquent, if perhaps less direct, form of expression.

Coming back to my long story at the start, your first few weeks in university will be thoroughly enjoyable, but also a little daunting. I found the tensions I felt mirrored by much of what is on this record. When art reflects what we feel it takes on a new dimension and connects with us more strongly. In these difficult times, perhaps you will connect with this.

MR DOWDING'S MATHEMATICAL PROBLEM OF THE WEEK

Lower School Problem of the Week

The shapes P and Q are formed from two and three identical rectangles respectively. Their perimeters are 58 cm and 85 cm respectively. Find the perimeter of one of the rectangles.

Middle School Problem of the Week

A list of five positive integers has mean 5, mode 5, median 5 and range 5. How many such lists of five positive integers are there?

Sixth Form Problem of the Week

For particular real numbers a and b, the function f is defined by $f(x) = ax + b$, and is such that $f\left(f(f(x))\right) = 27x - 52$. Find the formula for the function $g(x)$ such that, for all values of x, $g\left(f(x)\right) = x$,

Pupils are reminded that all solutions to these problems should be passed on to your teachers. Any pupils who are members of the respective societies are welcome to post their solutions on the Microsoft Teams pages for Mr Dowding or Mr Yeo to check and offer guidance.

Anyone wishing to join the societies can do so through the following Team codes:

Lower School Mathematics Society (Years 7, 8 & 9): **sdev7q3**

Middle School Mathematics Society (Years 10 & 11): **hlrpl3v**

STEP Club (Years 12 & 13): **1rympr0**

HOUSE COUNTDOWN COMPETITION ROUND 7

If you have watched the television programme Countdown, played the board game or taken part in Countdown Club at School, then this article will interest you. Here are a set of problems that should get you thinking this week. If you e-mail me the answers/solutions, then House Points or Senior Commendations will be awarded to you.

LETTERS:
For the letters round, you need to make as many words as you can by using the letters below. The idea is to try and find the longest word you can.

OREDLIUQR

UTAJRAEES

NUMBERS:
For the numbers round, you need to reach the target number, or as close as you can to it, using the numbers below. You may only use each number once in your calculation and must send me your full working.

Only use the four basic operations of: addition, subtraction, multiplication and division.

Fractions are not allowed, and only positive integers may be obtained as a result at any stage of the calculation.

50, 8, 10, 5, 3, 9   TARGET: 444

25, 9, 5, 9, 2, 1   TARGET: 943

TRICKY NUMBERS:
75, 6, 9, 1, 25, 7   TARGET: 206

CONUNDRUMS:
For a conundrum, you need to make a word using ALL of the letters.

DWHIILRNW

SRSISDPEE

If this has gained your interest, then please join the Countdown Club on *Microsoft Teams*. This is organised by a group of very numerate and literate Year 12 students.

The conundrums last week were:
audiology and tolerance. Well done to everyone who entered. House Points and Senior Commendations have been awarded using the *ePraise* system.

Mr R Barber, House Coordinator

KEEP CALM AND CARRY ON COOKING WITH MR MCGEE

FIRST EVER TARTE TATIN

Surprisingly easy and delicious!

Ingredients

3 large pears

Handful of pecan nuts

100g caster sugar

100ml of ameretto, another flavoured alcohol of your choosing or water

50g cubed butter

I pack ready-made puff pastry

Method

In an oven proof frying pan, add the sugar and liquid and bring to the boil. Watch this stage carefully, you are waiting for caramelisation to occur. This will happens at approximately 160 degrees. When the temperature is reached, the mixture will smell of caramel and suddenly thicken, but a temperature probe will be very useful here

When this happens add the pears and pecans (or whatever you prefer) and the butter. Give it a quick stir and take it off the heat.

Place the pastry over the top and put in a 190 degree oven for 25 minutes.

When golden brown take out of the oven and allow to cool for five minutes.

Place a plate on the tart and turn it over. Do this quickly but carefully as the caramel will be hot.

Serve with an ameretto Chantilly cream, as I did, or an alternative.

OXFORD GERMAN OLYMPIAD 2020

In March, Vidip Sahoo, in Mrs Genthe's 9z2 German class, entered a competition which is run each year by the Oxford German Network, part of the Faculty of Medieval and Modern Languages at the University of Oxford. The theme this year was Natur und Technik. Vidip chose to create a poster to explain Klimawandel.

We are delighted to report that Vidip was the joint winner in the Year 7-9 category and we would like to congratulate him on his splendid achievement. His poster is beautifully designed and illustrated, with really good use of language and play on words. We hope that Vidip's success will inspire others to submit entries next year.
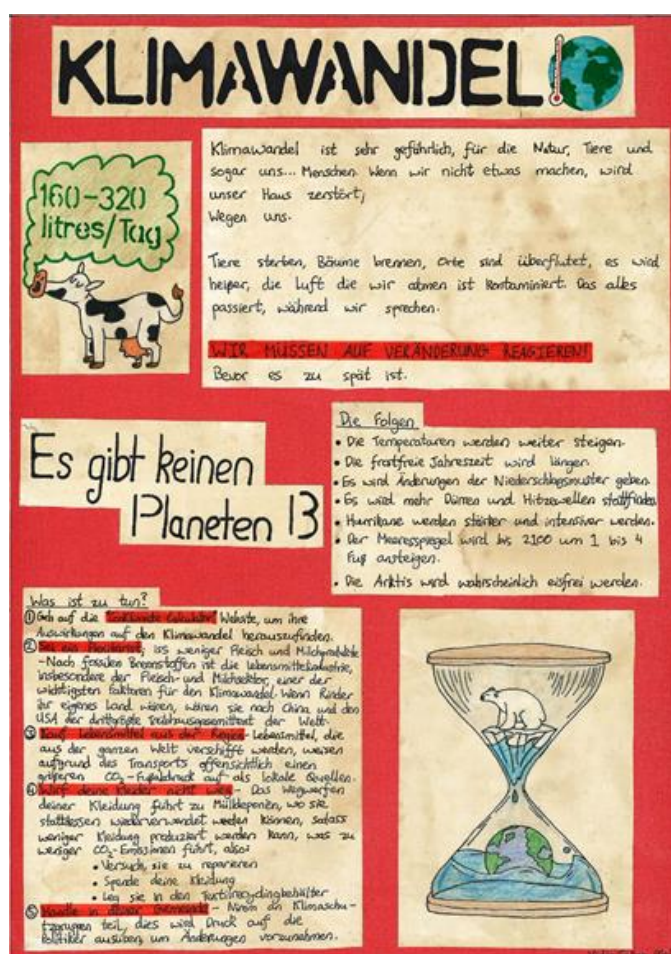
Ms J McKeown, Head of MLF; Ms M Niedziela, Head of German; Mrs T Genthe, Teacher of German

CHOOSE YOUR BATTLES: A WEEKLY COMPETITION IN MILITARY HISTORY

In last week's *Choose Your Battles*, Ayman Sharif, 7C responded the fastest, answering correctly with the Battle of Balaclava, featuring the infamous Charge of the Light Brigade.

The Background

The Crimean War is perhaps less known than some others, but it was actually made up of some large military powers: France, the UK, the Ottoman Empire and Sardinia – all of whom made up the allies - against Russia. The UK felt that its trading routes in India were threatened as a result of Russian pressure on the Ottoman Empire; France just wanted some military prestige.

On 14 September 1854, allied troops landed in Crimea, and began the march south with the aim of putting the Russian base, Sevastopol, under siege. After a few engagements on the march south, by 25 September the Russians had taken a defensive position and the allies were aware that they had to maintain the siege. The battle then had three very clear phases.

First, "The Thin Red" line. Facing Russian cavalry charges, Sir Colin Campbell set up his 93rd Highlanders, allegedly telling them "There is no retreat from here, men. You must die where you stand". The infantrymen then withstood two charges from the Russian cavalry by maintaining a disciplined line with methodical volleys. The "thin red line" title comes from a war correspondent's description of it as "a thin red streak topped with a line of steel".

Second, Sir James Scarlett's Charge of the Heavy Brigade, a more offensive action. Equally impressive, Scarlett led 300 cavalrymen uphill to attack 2000 Russian cavalry. Interestingly, Tennyson also wrote a poem about this but it is only known among literary circles. These two phases seem the stuff of military heroism: a last stand by Campbell's "thin red line" and a brave attack by Scarlett's charge. At this stage of the battle, the British had just over 100 casualties whilst the Russians had over 250. So where did it all go wrong?

As with many a successful endeavour, miscommunication squandered all of the possible successes of the battle. The commander of the British forces, Lord Raglan, saw the Russians' unruly retreat from his vantage point and ordered the Light Brigade to harry the retreat. The order was: "advance rapidly to the front, follow the enemy, and try to prevent the enemy from carrying away the guns". However, communication on the front lines was very flawed and by the time the order made it to Lord Cardigan, commander of the Light Brigade, it was just "advance rapidly". Cardigan had to follow the order and led his men headfirst into the valley to be fired on headfirst. Seeing the catastrophe, Raglan also pulled out the Heavy Brigade, leaving the survivors of the Light Brigade's charge to fight their way out hand-to-hand, having been partially surrounded. The charge saw about half of the 600 men who had embarked return, the rest being wounded, killed or captured.

Ultimately, the battle allowed the Russians to strengthen defensive positions, but it acted as a symbol of courage for the British. What may have been one of the most successful British battles ever was hindered by the Charge of the Light Brigade and later immortalised by Tennyson, a clear indication of the importance of communication.

This week's painting

This week's painting can be viewed on page 17. Your anagram this week gives the two sides in the form "BLANK and BLANK".

Anagram: sooty drunkards

Cryptic clue: Hero of the North falls to a Welsh cattle thief

Post your answers here:
https://forms.office.com/Pages/ResponsePage.aspx?id=N6W6gucuok-3-qnXxLzq5VVwf3_HraBHij4mwYKimM1UME9DWFdXS1U4SVNXTzRMTVRSVkNTMEJMVy4u
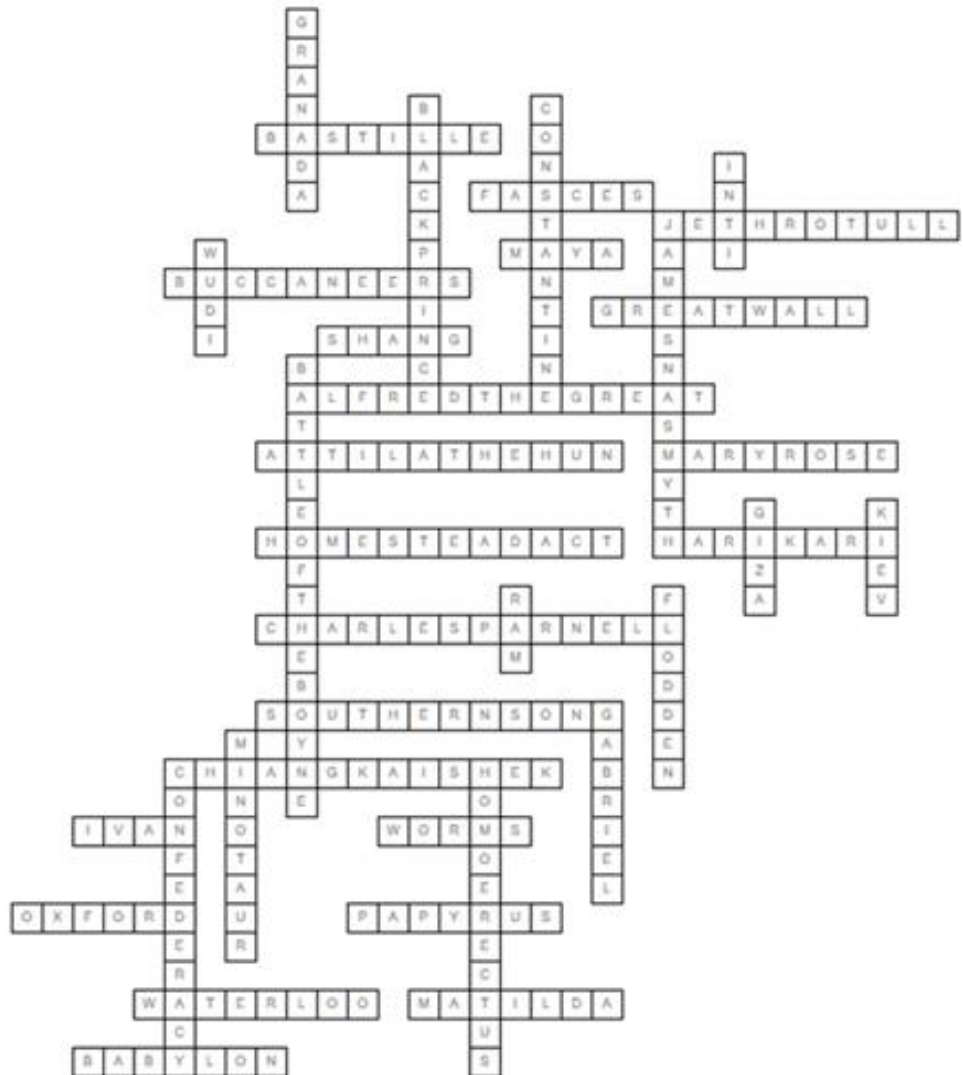
Choose your battles wisely...

Joshua Seal, A Level History student

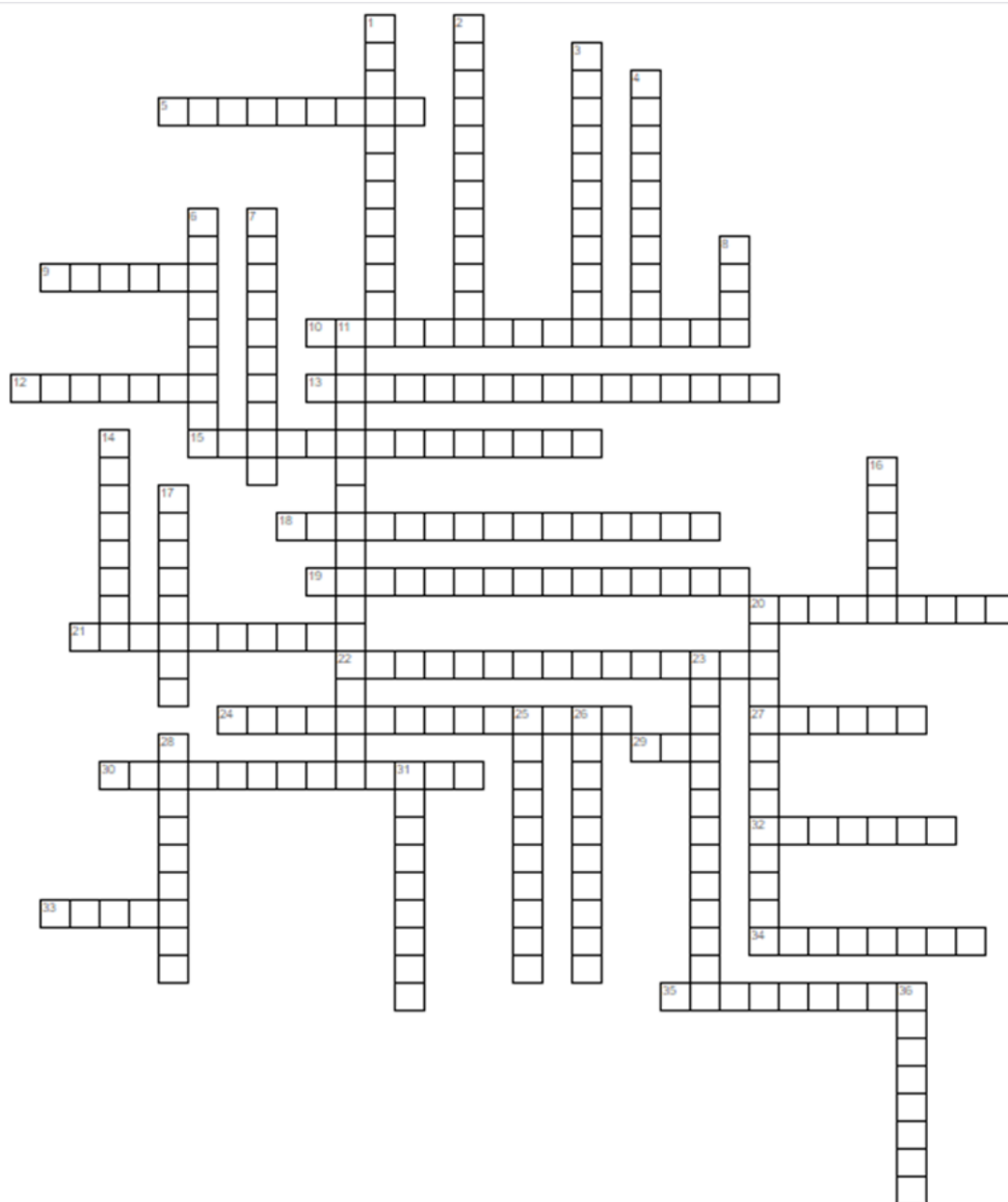## CHOOSE YOUR BATTLES COMPETITION: THIS WEEK'S PAINTING

ANSWERS TO HISTORY CROSSWORD 14 (WEEK BEGINNING 29 JUNE 2020)

This week, the winning answer was submitted by Aahil Shuheb in 2 hours and 28 minutes, followed one minute later by Rafi Gamma for the second week running.

MR JEFFREYS' HISTORY CROSSWORD 15: QUOTES SPECIAL

Across

5   'A new dawn has broken, has it not' (4,5)
9   'They also serve who only stand and wait' (6)
10 'Let them eat cake' (5,10)
12 'Will nobody rid me of this turbulent priest?' (5,2)
13 'Teach me and I remember' (8,8)
15 'If I have seen further, it is by standing on the shoulders of giants' (3,5,6)
18 'All my possessions for a moment of time' (5,9,1)
19 'The study of Philosophy is what the truth of things is' (2,6,7)
20 'A desperate disease requires a dangerous remedy' (3,6)
21 'Life is travelling to the edge of knowledge, then a leap taken' (1,1,8)
22 'What is better than wisdom? Woman' (8,7)
24 'Remark all these roughnesses, pimples, warts and everything as you see me' (6,8)
27 'The journey of a thousand miles begins with one step' (3,3)
29 'Tie a knot in it' (3)
30 'Bertie' (5,8)
32 'Stop all the clocks, cut off the telephone' (1,1,5)
33 'The greatest wealth is to live content with little' (5)
34 'An unexamined life is not worth living' (8)
35 'Nobody need wait a single moment before starting to improve the world' (4,5)

Down

1   'Veni Vidi Vici' (6,6)
2   'Let noone ever come to you without leaving happier' (6,6)
3   'Float like a butterfly, sting like a bee' (8,3)
4   'Nothing to declare but my genius' (5,5)
6   'Life is really simple but we insist on making it complicated' (9)
7   'Better to die standing than to live on your knees' (3,7)
8   'Life... A single sparrow should fly swiftly into the hall and coming in at one door, instantly fly out at the other' (4)
11 'Kratistos!' (9,3,5)
14 'Never let the fear of striking out keep you from playing the game' (4,4)
16 'All that we are is the result of what we have thought' (6)
17 'When Adam delved and Eve span' (4,4)
20 'Swans teach us that the troubles of death should not grieve us for in the very moment of dying, they despise their sad fate in singing' (6,2,5)
23 'Those who learned to collaborate and improvise have prevailed' (7,6)
25 'Quit talking and begin doing' (4,6)
26 'Kings are the slaves of History' (3,7)
28 'History is bunk' (5,4)
31 'When one's mind is made up, this diminishes fear' (4,5)
36 'To God and St Wulfstan I commend my body and soul' (4,4)

WHERE IN THE WORLD?

Congratulations to all those who correctly identified last week's location as **Mount Nyiragongo, Democratic Republic of Congo**. House points have been awarded to those who submitted correct answers.

Your clues for today's *Where in the World?* are:

- You have been given two photographs for this week. The fires in photograph 2 are said to never go out. What geographical feature do you think photograph 1 might be?
- It has a city built on stilts

Please submit your answers via this Microsoft Form by Thursday 9 July:

https://forms.office.com/Pages/ResponsePage.aspx?id=N6W6gucuok-3-qnXxLzq5cGrPAnzzsFDiqmfUFjxEshUQUxBVFNGSTRJT1laMk83OFNCUzVWTTVLOC4u

Mr L Norman, Teacher of Geography

THE LEARNER PROFILE

OPEN TO OPPORTUNITY

We understand that change is the process of becoming different. Change and challenge are both inevitable and vital. From the moment we are born and thereafter, each one of us has experienced change, and we will continue to experience change for the rest of our lives. The pandemic has brought significant changes to all our lives and will continue to do so for some time to come.

However, we have a choice about how we deal with change and, to pupils, I ask, are you prepared for the new challenges that lie ahead for you? Perhaps you already have thoughts about how things will be when you return to School in September.

Whilst much change is inevitable, and there are some areas in which we have no direct control, there are many areas in which we can influence change – its pace and its impact on our lives and communities. For example, students in the Upper Sixth cannot change the fact that they will leave the School at the end of this term, but they can have an impact on the opportunities that await them when they do, by drawing on the foundations they have laid through effective engagement with School life. In my experience, a pupil's level of engagement will determine whether or not his or her experience of that change will be wholly positive.

It is also possible to 'invite' change. At WHSB we encourage pupils to be open to opportunity, intellectually curious, reflective, inventive, to be a risk-taker, culturally sensitive, ambitious, aspirational. In short, we encourage pupils to change. We recognise this may take courage and resilience – if pupils have a desire to change and develop there may be setbacks which can be uncomfortable - but these are the routes to reflection, learning, and greater achievement.

I suspect I am safe in my assumption that there are few pupils, if any at WHSB, who do not wish to improve themselves. For those experiencing particular challenges in their lives at present – circumstances that will lead to change - that can be uncomfortable or distressing. It may not be possible for those pupils to change the circumstances, but they are able to change the way in which they think about what is happening, thus impacting on their experience of the shift.

Each of us has the freedom to choose our outlook, our thinking, our habits – to improve our circumstances and to grow and develop personally. The building of our character happens day by day as we deal with changing situations. These situations may be positive, such as challenging ourselves to try a new activity or club, or they may be painful, for example handling loss and the change that loss brings. Both bring opportunity.

Change is essential to growing as an individual and becoming a better person today than we were yesterday. It rarely seems natural or easy and we may wish to resist it and retreat back into our comfort zone. Normality is safe, as it does not provoke fear and it allows us to live our life without facing situations that could potentially hurt us or build us up. However, to resist change is to go through life without ever living up to your full potential.

John F. Kennedy, the 35th president of the United States once observed "Change is the law of life. And those who look only to the past or present are certain to miss the future". Responding in the face of an opportunity to change by saying "I cannot or will not do this" is defeatist and intensifies any stress that may be associated with the need to change. In the face of such emotions, creative thinking and imagination are quashed and the potential for success is reduced.

It is the case that doubt, fear, uncertainty are all normal emotions in the face of change and we cannot eliminate them. But we can embrace them. It has been said that "There is nothing more constant than change". It is happening all around us, every day, and all of the time. Whether an exciting opportunity, or an uncomfortable reality, the way in which we embrace emotions and approach the change will determine the success with which we are able to build our character and experience personal growth.   There is always something valuable that can be derived from change, whatever the circumstances. All you require is an open mind.

Headmaster

THE WEEK AHEAD

WEEK BEGINNING 6 JULY 2020

Please see inside *The Westcliff Week* for details of further activities. Clubs and Societies Team code xkzlh2s.

Day	Date	Time	Activity
MON - SUN	6 - 12 July	**N/A**	**Last week for House Points/Commendations for The Phoenix Cup**
		N/A	Environmental Society House Challenge (page 7) Deadline 12 July 2020
		N/A	WHSB Lockdown Gallery 2020 (page 8)
		N/A	Music Theory Tuition – 'itchy2learn' (Issue 5)
		N/A	Centenary House Competitions (update Page 2)
		N/A	Individual Music Lessons 2020-21 applications deadline 17 July (Issue 13)
		Various	Online quizzing opportunities (Issue 8)
		Various	Culture Vultures online, various (Issue 10)
		N/A	Rare Islamic Books & Manuscripts online, National Library of Israel (Issue 12)
		N/A	House Minecraft: Bed Wars and Egg Wars. Join via Team (page 12)
MON - FRI	6 -10 July	N/A	Wargaming Team: Bloodbowl League
		N/A	BBC Science & History Education offer (Issue 5)
		N/A	P.E. with Joe (featured in issue 1)
		N/A	Mr Jeffreys' History Crossword competition (page 18)
		N/A	Choose Your Battles Competition (page 16)
		N/A	House Typing Challenge (Issue 9)
		N/A	House Countdown Competition (page 14)
		N/A	Mr Dowding's Mathematical Problem of the Week (page 13)
		8.45am	Hallway Gym Class with Mr Moore (all invited), Details in Issues 6 & 7
TUESDAY	7 July	1.00pm	Healthcare and Medical Society
		4.00pm	Westcliff Drama Online
		6.00pm	Quiz Night for Form 7W (page 11)
WEDNESDAY	8 July	1.00pm	Weekly Watch with Miss Williams (page 12)
		1.00pm	MOxbridge English (Sixth Form)
		4.00pm	Bibliophiles Book Club (Middle School, Sixth Form and staff)
		6.00pm	Quiz Night for Form 7C (page 11)
THURSDAY	9 July	7.30pm	Mr Derrick's Film Club 'Watch-along' (page 11)
		N/A	Deadline for responses to this week's *Where in the World?* (page 19)
		N/A	Reading Beyond the Classroom – deadline for this week's book reviews (Issue 11)

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