

DSHS GALLERY

18th – 22nd January 2021

Life. Changing. Learning.

Year 12 Debating Society

Members of the Year 12 Virtual Debating Society have been meeting on Teams every Thursday after school to debate topical issues. They are running the sessions, devising the topics, and engaging in lively and intelligent debate which is insightful, articulate and persuasive. It has been a pleasure to listen to their contributions. They are:

Tom Griffiths, Annabell Gurney-Terry, Chloe Doody, Maddie Rollit, Pamela Stacey, Adam Stott, Rob Blake, Lorna Beecroft, Felicity Jones, and Holly Whittall-Jones.



Life. Changing. Learning.

Year 12 Photography Competition



Well done to **Charlie Hunter**, who was the winner of the first Year 12 lockdown challenge: photography. She was awarded a prize for this beautiful picture.

Life. Changing. Learning.

An excellent summary of group research into prenatal epigenetics by Ellie Baylis, Sophie McCammon, Katie Sabel and Mollie Waldron-Wheeler

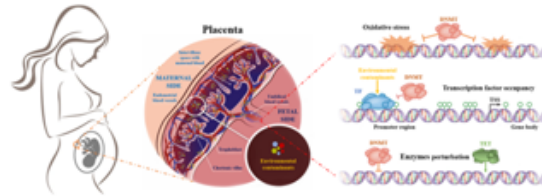
Prenatal Epigenetics

Background

Exposure to environmental factors can induce **metabolic** and **physiological changes** to a foetus (altered epigenetic profile) which can lead to **chronic diseases** e.g. cancer- World health organisation.

Stability during gametogenesis and embryonic development

- DNA methylome- important component
- Methylation of spermatocyte and oocyte cells continues until fertilisation.
- Multiple methylated **CpG sites** can result in destabilised nucleosomes and increase proteins that can **inhibit transcription**.
- It can block the binding of **transcription factors** e.g. E2F1 this interrupts the transcription of genes.
- **Hypermethylation** in the placenta has been linked to gestational diabetes and Downs syndrome as it causes **abnormalities in the chromosomes structure**.



Epigenetic diets

- Certain foods have effects on the developing foetus. E.g. queen bees develop due to the presence of royal jelly.
- Prenatal alcohol exposure may affect **protein synthesis, mRNA splicing, and chromatin regulation** in rodent embryos.
- Vitamin C is involved in DNA **demethylation and histone demethylation**.
- Vitamin D used in regulating transcriptional responses- VDR (Vitamin D receptor) allows the **chromatin accessibility to be increased**.
- In in vitro experiments, vitamin D treatments have been shown to regulate gene expression through histone acetylation and methylation which is shown in embryonic research.

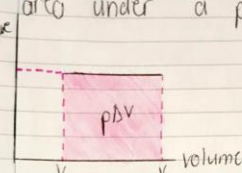

Epigenetics – Prenatal environmental pollution and epigenetic dysregulation

- Utero exposure to **smoking** alters DNA methylation patterns and can lead to **impaired development** - respiratory illness, cardiovascular disorders and childhood cancers.
- Maternal tobacco smoking was also linked to **dysfunctional miRNAs**. Male foetus were more susceptible - the **IGF2 gene** caused methylation to occur more.
- **EDCs** (Endocrine-disrupting chemicals) a chemical used in plastic-softening can mimic actions of endogenous hormones. It's linked to hormone-associated tumours (breast and prostate cancer).

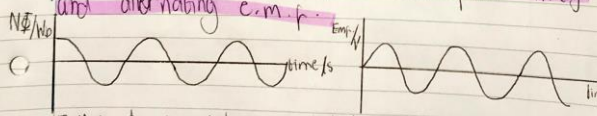
Life. Changing. Learning.

Impressive Science work from Anele Ndimande in Year 13

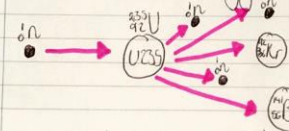
PPE Responses to targets:

- 1) Explain how to calculate work done by an expanding gas.
 - The work done is given by:
 - work done = $p\Delta V$
 - this can be calculated by finding the area under a pressure-volume graph.
 - usually occurs when there is a change in temperature.
 - this follows Charles' law at constant pressure, $V \propto T$
- 2) Define internal energy.
 - Internal energy of a body is the sum of the kinetic/potential energies of all its particles.
- 3) Use kinetic theory model to explain why a gas exerts a pressure.
 - change in momentum when hitting wall $\Delta p = mu - (-mu) = 2mu$
 - time to reach $\Delta t = \frac{\text{distance}}{\text{speed}} = \frac{2u}{v}$
 - force = $\frac{\Delta(\text{momentum})}{\text{time}} = 2mu \times \frac{v}{2l} = \frac{2mu^2}{l}$
 - pressure = $\frac{\text{force}}{\text{area}} = \frac{mu^2}{l^3} = \frac{mu^2}{V}$

PPE Responses to targets:

- 4) Define gravitational potential and electric potential.
 - gravitational potential at a point is the GPE that a unit mass at that point would have.
 - $V = \frac{-GM}{r}$
 - electric potential is the electric potential energy that a unit of positive charge would have at a point.
 - $V = \frac{1}{4\pi\epsilon_0} \frac{Q}{r}$
- 5) Explain how to calculate electric potential.
 - Eg. a positively charged particle is placed 0.086m from the centre of a sphere with a charge $+3.1 \mu C$ radius 0.02m. If the particle is repelled by 0.19m, what is the change in potential?
$$\Delta V = V_{\text{final}} - V_{\text{initial}} = \frac{1}{4\pi\epsilon_0} \left(\frac{3.1 \times 10^{-6}}{0.086 + 0.19} - \frac{3.1 \times 10^{-6}}{0.086} \right) = -6.7 \times 10^5 \text{ V (2 s.f.)}$$
- 6) Sketch graphs to show link between flux linkage and alternating c.m.f.
 - 

PPE Responses to targets:

- 7) Describe the process of fission.
 - Why is a moderator needed?
 - Discuss the link between neutron number of the moderator and the number of collisions needed to reduce neutron speeds.
 - unstable large nuclei split into smaller daughter nuclei (eg. from U-235)
 - energy released as daughter nuclei have higher average binding energies per nucleon.
 - fission can be induced by thermal neutrons (low-energy).
- 8) Discuss 4 advantages of nuclear fission for energy.
 - process doesn't produce greenhouse gases
 - enough fuel for centuries in comparison to fossil fuels.
 - much more efficient process.
 - products can be used for medical tracers as well as other things.

Life. Changing. Learning.

Year 12 Achievements

- Mrs Giles Year 12 Literature group continue to impress. They have recently produced a very high-quality set of essays on The Duchess of Malfi.
- The Year 13 Health and Social Care group have been organised and dedicated to attending Unit 4 live lessons. A special mention to **Olivia Smith** and **Georgia Fox** for demonstrating excellent skills in analysis and sustained motivation with their work.

Excellent work on Global Governance by Olivia Smith in Year 13

Global governance interest groups

What is global governance?

It's the ways global affairs affect how the world is managed. In order to govern globally, agreements need to be made between countries who sign treaties (like the Antarctic treaty) or international laws.



The United Nations

- Set up at the end of WW2 in 1945 to initially maintain world peace
- Now has powers to enforce international laws and policies, causing the organisation to impact citizens all around the world
- Since 1945, there have been no 'world conflicts' and over 170 UN settlements have ended regional conflicts
- Some powerful military states ignore UN security council mandates (eg - China, Soviet Union (now Russia) and North Korea)
- Some governments have greater influence in the UN - China, France, USA, UK and Russia are all permanent members of the security council so take leadership roles in conflict management



The World Trade Organisation

- Exists to take responsibility for managing trade in an increasingly interrelated world
- Aims to reduce global injustice and inequalities through trade liberalization (ensuring free trade)
- Supports negotiations into reducing exploitative practices used in some countries and by some TNC'S
- Removes protectionist policies used by some governments and trading blocs.
- Some countries are seen to be favoured more than others (eg - USA cotton farmers vs Mali and in banana wars)
- Following the failure of the Doha Round of talks due to the increasing power of NEE's, the influence of the WTO remains uncertain. World Trade negotiations are best tackled on a global scale rather than bilaterally but if an agreement cannot be found this may be impossible



World health organisation

- To eradicate and combat the spread of global diseases
- Successful at reducing global mortality rates, as well as eradicating small pox in 1979 and the near eradication of polio through global vaccination
- Although the WHO offer guidance and leadership on how to contain the Ebola virus during the 2014 outbreak in west Africa, they were heavily criticised for delays with this and also an inability to prevent the spread of HIV/AIDS across Africa

Global governance interest groups



United Nations Development Programme

- Created in 1965 aiming to eradicate poverty and reduce inequalities and exclusion
- Operated in over 170 countries and has led to the drive to meet the Millennium Development Goals which are 8 anti-poverty targets set in 2000. The world achieved this by 2015
- In practice, this institution has less power as one such as the WTO
- Whilst there was huge progress in most areas of the MDG's, very few of the targets were actually met



Earth summit and Agenda 21

- Held in Rio in 1992 and important in setting out Agenda 21, a voluntary plan agreed by many governments to develop strategies for sustainable developments
- Agenda 21 plans were intended to be cascaded down from national governments to local authorities to help to encourage more sustainable lifestyles and behaviours
- In the UK, each local authority had a Local Agenda 21 strategy which have resulted in recycling schemes in most areas of the UK
- The action plans are only voluntary and not compulsory
- Not all countries signed up to Agenda 21
- In the USA, opponents see the agreement as an attack on personal liberties (eg - car use, family size)
- Some religious groups are in opposition due to a focus on population control



Climate change summits

- The UNFCCC is the body responsible for overseeing negotiations on reducing greenhouse gas emissions
- A legally binding deal was signed by world leaders at the Paris Climate Summit in 2015 to come into force in 2020
- All 187 countries at the summit pledged to hold global temperature rise to a limit of 1.5 above the preindustrial level
- All countries will cut emissions, net emissions to be reduced to 0 in the second half of the 21st Century.
- HDC's and some NEE's will give \$100 billion each year to help adaptation in developing countries to review progress and increase pledges if they are insufficient to keep warming below 2 and provide compensation for countries vulnerable to sea level rise and increased storms.
- Withdrawal of US in 2017 could undermine the deal making it more difficult to get other countries to stick to it, if they perceive it may damage their economy and the USA as an economic advantage



Life. Changing. Learning.

A Clever Poem by Grace Rusby, Year 9

The tale of two Mittens

This is a story of wool, needle and thread,
Politics and memes, Inauguration dread.
Dear listener, prepare to be smitten,
For this is a tale of one man and his mittens.

When Bernie lost the presidential race,
A Vermont schoolteacher put a smile on his face.
For a pair of mittens, she did knit,
Now today's newest source of the internet's wit.

4 years later, the day came,
When the mittens obtained newfound fame.
On the 20th of January, Bernie did wear,
Raincoat, mask, mittens while sat on his chair.

The very next day social media was ablaze,
With the fashion statement Bernie had made.
Going viral the meme was endlessly shared
People enjoyed the Nordic knitwear elegantly paired.

Likes, retweets and millions of shares
It grew and grew because everyone cared
The ousting of trump and Biden's victory
Overshadowed by mittens. Is that the lasting legacy?

Life. Changing. Learning.

A Beautiful poem by Alesha Bennett, Year 9

Late at night I talk to the stars,
The constellations are joined,
Like the intertwining bond of ours
And it makes me feel connected to you.
I believe this love could never be tighter
Two girls from different worlds.
I may be the writer,
But you'll always be my words.

Life. Changing. Learning.

Reuben Sabel showing his working out clearly when solving equations

1) 12, 24, 36, 48, 60, 72, 84, 96, 108, 120, 132, 144, 156, 168, 180, 192, 204, 216, 228, 240, 252, 264, 276, 288, 300, 312, 324, 336, 348, 360 (36) ✓

2) 55 ✓

3) $x = 12$ ✓

4) 16 ✓

1) 9, 18, 27, 36 (36)

2) $3m + 6$

$3x + 3 = x + 5$

$2x + 3 = 5$

$-2x -3$

$2x = 2$

$\div 2 \div 2$

$x = 1$

1) $x + 5 = 3x + 3$

$-x -x$

$5 = 2x + 3$

$-3 -3$

$2 = 2x$

$\div 2 \div 2$

$1 = x$

2) $x - 5 = 3x + 3$

$-x -x$

$-5 = 2x + 3$

$-3 -3$

$-8 = 2x$

$\div 2 \div 2$

$-4 = x$

3) $x - 5 = 3x - 3$

$-x -x$

$-5 = 2x - 3$

$+3 +3$

$-2 = 2x$

$\div 2 \div 2$

$-1 = x$

4) $x - 5 = -3 + 3x$

$-x -x$

$-5 = -3 + 2x$

$-2 = 2x$

$\div 2 \div 2$

$-1 = x$

Life. Changing. Learning.

Excellent Engagement in Online Learning by some members of 9LH

Liam
Greenfield

Leona Calder

Sonny
Priestley

Owen Smith

Kiren Punnamoottil Mathukutty

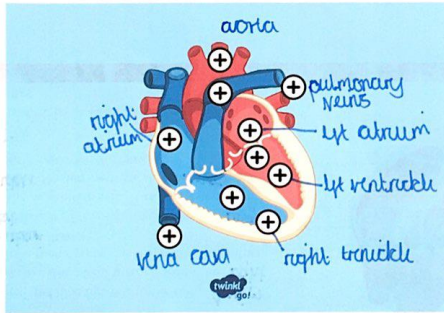
Sidra Watfa

Cassie Smith

Life. Changing. Learning.

Detailed work on the Heart by **Finley Walton** in Year 9

TASK 1: Use sheet 1 to label The Heart



TASK 3: Place in the Correct Order

- 5 It then goes into the left ventricle.
- 2 The blood then goes into the right ventricle.
- 3 The right ventricle then pumps the blood out of the heart, to the lungs.
- 6 The left ventricle then pumps the blood out of the heart for the blood to flow all around the body.
- 4 The oxygenated blood from the lungs goes into the left atrium via the pulmonary vein.
- 1 First, deoxygenated blood goes into the right atrium via the vena cava.

Extension

What do the valves in the heart do?

TASK 4: Answer this exam question

Explain, in detail, what happens to the heart rate during exercise. (5 marks)

The heart rate increases during exercise, pumping blood around the body quicker.

The muscles are contracting more and so need more energy.

More energy is released during the process of respiration.

Respiration needs oxygen and glucose which is carried by the blood.

More oxygen and glucose is needed as respiration is occurring quicker so the heart pumps quicker.

when you do exercise you get out of breath quicker and when you breathe quicker your body has to work quicker causing you have to pump the blood quicker

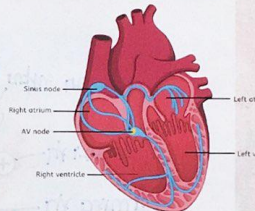
TASK 2: On the diagram, using a red and blue pen, show the flow of blood through the heart, then fill in missing gaps

The Flow of Blood

Complete the sentences by filling in the gaps.

First, deoxygenated blood goes into the right atrium via the vena cava. The blood then goes into the right ventricle which then pumps the blood out of the heart, to the lungs. The oxygenated blood from the lungs goes into the left atrium via the pulmonary vein. It then goes into the left ventricle. The left ventricle then pumps the blood out of the heart for the blood to flow all around the body.

Keywords: pumps, body, atrium, right, oxygenated, left, ventricle, lungs



TASK 3: Place in the Correct Order

- 5 It then goes into the left ventricle.
- 2 The blood then goes into the right ventricle.
- 3 The right ventricle then pumps the blood out of the heart, to the lungs.
- 6 The left ventricle then pumps the blood out of the heart for the blood to flow all around the body.
- 4 The oxygenated blood from the lungs goes into the left atrium via the pulmonary vein.
- 1 First, deoxygenated blood goes into the right atrium via the vena cava.

Extension

What do the valves in the heart do?

The Heart

Lungs

The heart is a muscle that pumps blood around the body. It is a double circulatory system with one circuit pumping the deoxygenated blood to the lungs.

The other circuit pumps the oxygenated blood all around the body.

The Pacemaker

The body's natural pacemaker sends an electrical signal to the heart muscle cells, telling them to contract at the same time.

Body

Quick Question:

Why has the left side of the heart got more muscle than the right? It has to pump the blood all around the body

there are higher forces to pump the blood

Life. Changing. Learning.

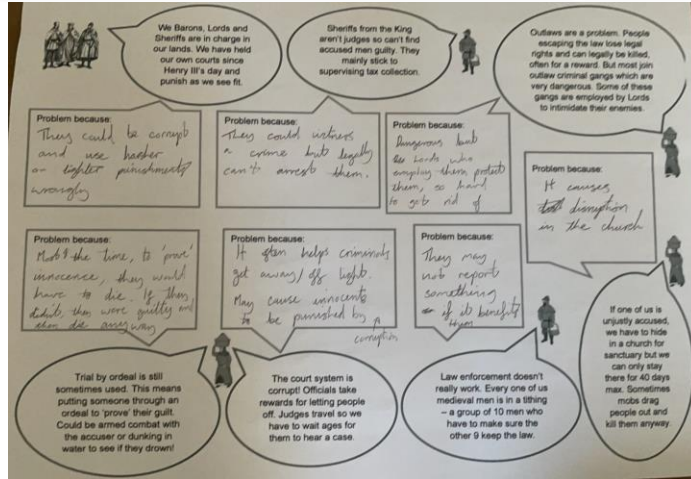
Excellent Work by Year 11

- Mr Ward is enjoying his Year 11 classes. They are so much fun to teach and are extremely conscientious and hard working.
- 11S2 are working hard on English Language and have produced some really excellent assignments.
- **Emily Davies** is working very hard on her Hair and Beauty qualification.

Year 11 Achievements

A special mention for **Emily Davies** in 11C Child Development for completing her formula milk bottle making practical via Teams this week. Emily was well prepared ready for the practical, was confident and followed all the necessary hygiene procedures.

Liam Balmforth, Year 11, produced impressive work on the changes that Edward I made to law and order in Medieval England



1 - Keep religion separate

- Church courts had existed since the 1100s. They used canon (or religious) law rather than secular (or king's) law. These courts were mainly used for social matters, such as not attending church or on Sunday, dispute over tithes, payments, wills, heresy and witchcraft, and cases of sexual misconduct. These courts had a reputation for lenient punishments - winking at or to the commandment, "Thou shalt not kill".

2 - Minor changes to minor courts

- Mancor or 'tied' courts - these village courts continued to meet regularly to deal with minor offences or everyday local issues such as blocked roads or disputes, straying animals, disputes over land and so on. Occasionally they also dealt with minor cases of violence, such as the case of William Ranting who was forced to compensate Peter Cill two shillings for beating and ill-treating him.
- Hundred or borough courts - these met every two or three weeks and dealt with any cases within their area. A jury of twelve free men would be sworn in to determine the character of the accused and decide if they were guilty. The system of law became known as Common Law. More serious cases were passed to the higher courts.

3 - MAJOR changes to MAJOR courts

- Assizes - the old system (called the general Eyre) was not working well. Accused people could be kept in prison for months or even years, awaiting the arrival of the judges. In 1294 Edward introduced the local Assizes. Judges regularly visited each area so cases could be dealt with promptly.
- Royal courts - the King's Bench heard criminal cases and appeals from the lower courts, and the Court of Common Pleas at Westminster dealt with property rights. These were not new but they were used increasingly as the thirteenth century progressed, and many of Edward's laws were geared to reinforcing the role of these courts.
- Parliament - this was the highest court in the land. New laws were made here by Statute. Edward introduced the practice of allowing people to petition Parliament for redress of grievances. Any member of the House of Lords had the right to trial by his peers.

The Statute of Winchester, 1285: the beginning of policing?

Having established his authority, in 1285 Edward and Parliament began reforming the justice system. The Statute of Winchester aimed to give communities more responsibility for dealing with issues of law and order. The law reintroduced watchmen, a job that had disappeared in the previous century in many towns and cities. This group of local men would ensure order was kept after the town's gates were closed and could be summoned by the constable to establish order if there was a problem at other times.

A key element of the Statute of Winchester introduced **hue and cry**. According to this rule, anyone who witnessed a crime must raise the alarm ('hue and cry'). If they heard the shouts, all able-bodied men had to help pursue the criminal. Ignoring a crime was punishable, as was raising a false hue and cry. The statute also stated that 'the whole hundred [...] shall be answerable' if a criminal was allowed to escape, the rest of the village would be held responsible!

Some historians argue that the Statute of Winchester was the beginning of what eventually became the modern police force. At the time, it established that everyone was responsible for ensuring that order was maintained, not just the barons, and that crimes must be punished.

How did the 1278 Statute of Gloucester and the 1285 Statute of Winchester show a 'two-pronged' approach to improving English law?

The Statute of Gloucester was to remind the barons that the king is in the power. The Statute of Winchester shows the king doesn't trust the barons to enforce law well and gets watchmen to supervise everything.

↑
COMMONERS

* Explain the importance of the Statute of Winchester.

One reason the statute of Winchester was important because it gave more power to the 'public' to defend the law. This was important because it ~~increased~~ would've decreased crime/successful crime rate as more people were trying to defend the law through 'hue and cry' and watchmen.

Another reason it was important was that ~~the~~ Edward hinted to the barons that he was aware of their corruption and didn't trust them to enforce the law. This was important because it would have made corrupt barons slightly paranoid that the king may know about their corruption and would have made them reluctant to continue their business, reducing corruption.

The statute of Winchester is important to today because it is theorised, and very likely, that the 'watchmen' Edward reintroduced into England evolved into the police we have today. The 'hue and cry' mechanic goes hand in hand with this because we now call the police if we see a crime.

I think the most important impact was watchmen because the influence modern day police have today is massive, and are the main force of defending the law today.

Life. Changing. Learning.

Excellent Maths by Isobel Capewell in Year 11

Corbett Maths

Ratio: Given one quantity
Video 271 on www.corbettmaths.com

Examples

Workout

Click here

Scan here

Question 1: A drawer contains white socks and black socks only.
The number of white socks to the number of black socks is in the ratio 1:3
There are 12 white socks.
(a) Work out the number of black socks in the drawer.
(b) Work out the total number of socks in the drawer.

Question 2: James has some apples and oranges.
The ratio of apples and oranges is 2:5
He has 15 oranges.
How many apples does James have?

Question 3: The ratio of lemon sweets to strawberry sweets in a tub is 5:3
There are 120 lemon sweets in the tub.
How many strawberry sweets are in the tub?

Question 4: Rachel has some first class and some second class stamps.
The ratio of the number of first class to the number of second class stamps is 3:4
Rachel has 18 first class stamps.
(a) How many second class stamps does Rachel have?
(b) How many stamps does Rachel have in total?

Question 5: Abby, Neil and Dylan share a sum of money in the ratio 2:4:5
Neil receives £60
Work out how much money Dylan receives.

Question 6: The ratio of the number of girls to the number of boys in a school is 9:10
There are 900 boys in the school.
Work out the total number of students in the school.

Question 7: Flour, sugar and butter are mixed in the ratio 6:2:3
How many grams of flour and sugar are needed to mix with 180g of butter?

© CORBETTMATHS 2018

Handwritten calculations and diagrams:

- For Question 1:
$$\begin{array}{r} 1:3 \\ 2:5 \\ \hline 6:15 \end{array}$$
 and
$$\begin{array}{r} 1:3 \\ 5:15 \\ \hline 10:72 \end{array}$$
- For Question 2:
$$\begin{array}{r} 2:5 \\ 6:15 \end{array}$$
- For Question 3:
$$\begin{array}{r} 5:3 \\ 5:3 \\ \hline 10:72 \end{array}$$
- For Question 4:
$$\begin{array}{r} 3:4 \\ 18:24 \end{array}$$
- For Question 5:
$$\begin{array}{r} 2:4:5 \\ 2:4:5 \\ \hline 60:120:150 \end{array}$$
- For Question 6:
$$\begin{array}{r} 9:10 \\ 9:10 \\ \hline 81:90 \end{array}$$
- For Question 7:
$$\begin{array}{r} 6:2:3 \\ 6:2:3 \\ \hline 360:120:180 \end{array}$$

Life. Changing. Learning.

Year 10 Achievements

- Mrs Harris-Smith congratulates 10S1 on the effort they are putting into their science work. The vast majority of students are meeting all deadlines and are completing tasks to high standard. It's really pleasing to see how seriously they are taking their studies.
- Despite the challenges of remote learning, **Stevie Andrews**, **Lakeisha Perry** and **Lanie Price** are all working with great dedication and determination in their Hair and Beauty Course.

Year 10 Achievements

Child Development.

Olivia Lewis, Ambar Pitcher, Priya Sharma, Verity Thomas, Aimee Douglas, Amy Golden, Daisy Jacobs, Grace Kasch, Laney Lock, Poppy Robinson and Paige Rowe have shown fantastic and continued engagement and dedication to the subject and have been producing some really thoughtful explanations of the suitability of different clothing and travel items for a nursery setting.


A mention for Rosie Booth, Lilly Dawson, Willow Cound who have been consistent in joining the lessons too.

Amazing History work from Auguste Juseviciute in Year 10

Auguste Juseviciute

Tuesday 12th January 2021

Untermensche

<p><u>Criminals:</u></p> <ul style="list-style-type: none"> Hitler didn't like them because they didn't belong in Germany as they travelled and where on the move a lot. 	<p><u>Beggars:</u></p> <ul style="list-style-type: none"> The beggars weren't welcome because they would take ask and possibly take things from Germans who worked hard and fought <u>fight</u> in the war for those things. 	<p><u>Mentally Handicapped:</u></p> <p>The mentally handicapped had the same reason why they weren't welcome in Germany like the physically handicapped, they couldn't work or go to war.</p>
<p><u>Chronic alcoholics:</u></p> <ul style="list-style-type: none"> They weren't welcome because they wouldn't be able to work, fight (go to war) contributes in any way and that would ruin the reputation of Germany being perfect. 		<p><u>Homeless:</u></p> <ul style="list-style-type: none"> The homeless weren't welcome because they would ask money from Germans and they <u>didn't</u> have jobs so they were ruining the perfect Germany.
<p><u>Homosexual:</u></p> <ul style="list-style-type: none"> Because they could have children(reproduce) and they don't popularity the race of Hitler. 	<p><u>Diseases:</u></p> <ul style="list-style-type: none"> They weren't welcome because they could most likely carry diseases like STDS, and this would stop the Hitler race from growing. 	<p><u>Physically Handicapped:</u></p> <ul style="list-style-type: none"> They weren't able to fight in the war or be able to work and because Germany was supposed to be so perfect 'people like this' would destroy this reputation.

Q. Who sterilise or remove these people?

Hitler chose to sterilise anyone who was physically or mentally handicapped so they couldn't reproduce and grow their 'unsuitable race' because Hitler thought that people were waiting their time and money, Hitler also thought and said that the disabled were euthenasia (a term used to say nicely that someone was too ill and was going to die) however he didn't mean it in a nice way, so Hitler killed 5000 mentally handicapped babies /children between 1939 and 1945.

Q. Who else could the Nazis use these method on?

The Nazis could use these methods of gassing the disabled, homeless, homosexuals etc. on the Jews as it seemed to be efficient for the Nazis.

The path to the holocaust



Auguste Juseviciute

Tuesday 12th January 2021

Opposition Case Study: The Bomb plot of 1944

Aims:

Who was behind the bomb plot of 1944?

Why did it fail?

The Kreisau Circle: Notes

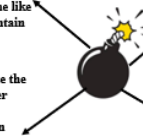
- The Junker class had never completely accepted Hitler
- To them he was a lower middle-class thug
- A group of elite rich Germans met secretly to remove him –
- They would replace Hitler and ask the allies for peace
- Many were high ranking military
- They disapproved of Hitler's wartime leadership
- One of their group was Claus Von Stauffenberg.

The facts of the: Opposition Case Study: The Bomb plot of 1944

There were many difficulties of getting close to Hitler this was because he took great steps to prevent himself being assassinated many of these steps were that anyone with him weren't allowed to have weapons on them, he was highly and tightly guarded, he locked himself in many buildings some like the Chancellery in Berlin or his mountain home in Berchtesgaden.

The bomb plot was initiated because the people behind the plot wanted Hitler dead and for WW2 to end this was because many people in the German military believed that Hitler was bringing them to a defeat and that if Hitler were killed then the Allies would negotiate a surrender.

Plans to kill Hitler had failed before because either he changed plans/ changed his mind at the last minute or the assassins attempts failed like for example a bomb not going off



In the plot Count Claus von Stauffenberg was supposed go to a meeting where Hitler would be attending, there he would put a briefcase containing a bomb inside and was supposed to place it next to a table leg that was the closest to Hitler, and turn the bomb on while doing so and then he was supposed to get an 'urgent telephone call from Berlin' and he left the room and hurry after the building where he went to a car where his conspirators were waiting for him while the bomb went off as he was doing so.



Life. Changing. Learning.

Brilliant Holderness Case Study by Holly Jackson in Year 10

Holderness Case Study



The Holderness coastline is Europe's fastest eroding coastline at an average of 2 metres per year. The Holderness coast is in the North East of England. The North of the coastline starts at Flamborough Head and ends at Spurn Point.

Why is it eroding?

- Rock Type** - The coast is made from boulder clay and chalk which slumps when wet because it is easily eroded.
- Naturally narrow beaches** - gives less protection to the coast as it doesn't reduce the wave power.
- Man-made structures** - groynes have been installed. This means unprotected beaches elsewhere can move.
- Powerful waves** - Waves at Holderness have a long fetch. They are destructive waves ending the base of the cliff.



Management Strategies:

- Bridlington is protected by a 4.7 km long sea wall.
- Homers is protected by a sea wall, groynes and rock armour.
- Coastal management at Withernsea has tried to make the beach wider by using groynes and also uses a seawall to protect the coast.

- Spurn Head is protected with groynes and rock armour.
- Mappleton is protected by rock armour at a cost of £1 million.
- Easington is protected by rock armour.



Effects of Coastal Management:

Place	Positive	Negative
Bridlington	The sea wall preventing damage from erosion blocks an area important for tourism.	Expensive to build and maintain.
Mappleton	Before the rock armour there was £2.9 million damage a year. It produced a sandy beach and also protected the town of Grade 2 listed church and the R1292.	An expensive initial cost. The rate of erosion has significantly increased South of Mappleton. Farms have been destroyed and 100 chalets have been lost in Golden Sands holiday park.



- Easington - The rock armour protects the gas terminal which accounts for 25% of the British gas supply. It also protects the local jobs. The village is not protected. It's preventing material reaching sites of special scientific interest such as Sand dunes just South.

Social, Economic and Environmental Impacts of Erosion

Social

Around 30 villages have been lost since Roman times, meaning homes and businesses have been lost.



Many of the settlements rely heavily on tourism as facilities close down the settlements are unable to maintain a good population.

Properties under threat of erosion lose their value leaving owners with negative equity.



Economic

Number of visitors to areas along this coastline have dropped.

Some settlements unable to maintain a viable population to warrant shops.

Money has to be spent on coastal management and protection.

The gas terminal in Easington, which supplies 25% of Britain's gas is at risk.

1000m² of farmland is lost each year. This has a huge effect on farmed livelihoods.



Environmental

Wildlife behind Spurn Point is being diversified as the environment cannot support many species due to the lack in sediment.

Some SSS is threatened by erosion.



Life. Changing. Learning.

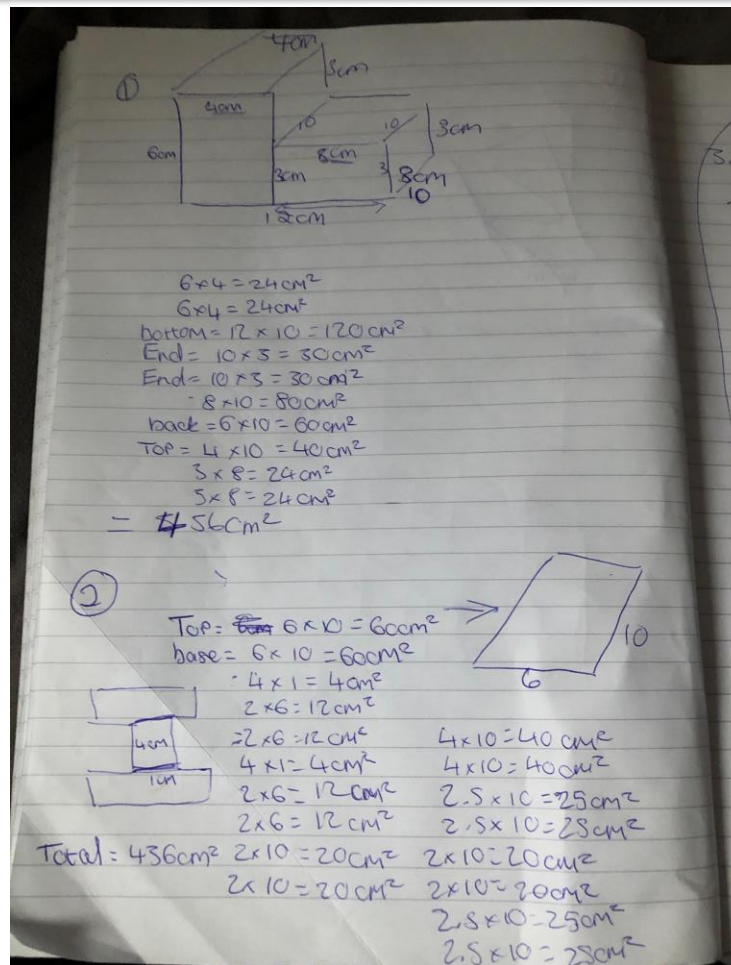
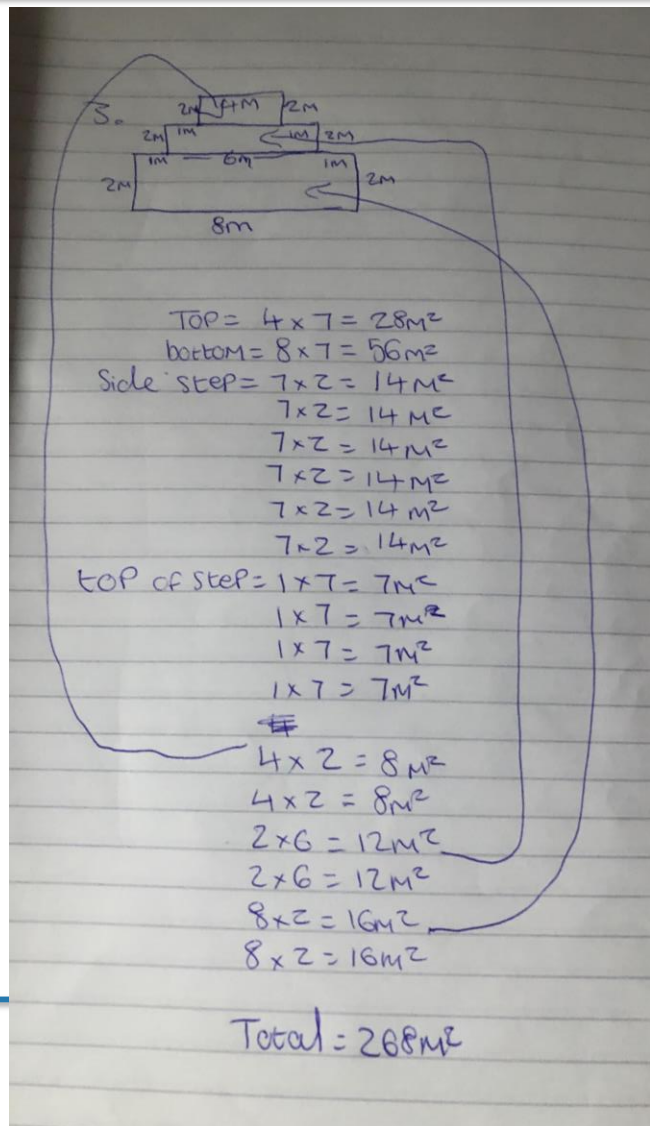
Great 6 mark Geography answer by Emma Sabel in Year 10

Using a case study of an LIC or NEE explain the link between Transnational corporations and industrial development in the country

Name of country: Nigeria

Transnational corporations are companies that operates in more than one country at a time. This benefits the country because it brings jobs. For example, in Nigeria Shell has directly employed 65000 jobs in the Niger delta. This gives locals a guaranteed income therefore the government will get more money from tax that they can use to develop the country. There is also a multiplier effect because as companies grow there is also a grow in the supply chain of ~~industries~~ industries. This then means more people are (indirectly) being employed. The ~~cor~~ transnational corporations can ~~then~~^{also} invest in the country to improve the standards of production, while growing their company they also make the country more attractive to other companies or investors.

Exceptional Maths work by **Joe Price** in Year 10



Life. Changing. Learning.

Mazie Downes, Year 10, produced great work on the Nazis

Thursday 14 January

The Final Solution
How did persecution escalate? Reasons were these for this?

- 1939 - Germany invaded Poland which had a larger population of 3 million Jews.
- 1941 - Germany invaded Russia which had a population of 5 million Jews.
- They had been shooting Jews which they found in invaded countries.

Why might they need to change their tactics?
They are washing bullets and other valuable objects. Also the other countries are going to suspect something.

- ① Women, children, the old, sick → go through a process called 'destruction through work' for the war effort.
- ② Shooting was too inefficient as the bullets were needed.
- ③ The young + fit would be sent for special treatment.
- ④ Arriving at camps the Jews would go through a process selection! Himmler's
- ⑤ Remaining Jews would be shipped to 'resettlement' in Poland.
- ⑥ Conditions in the Ghettos were designed to be so bad that many would die quickly.
- ⑦ The Jews living in Ghettos were to be used as a cheap source of labour.

Final Solution

January 1942: Himmler called a special conference at Wannsee telling the Nazis their methods are inefficient.

Main Concentration camps = Dachau, Belsen

Extermination camps = Auschwitz, Belzec, Chelmo

→ 8,000 estimated minimum number of Jews murdered from each country.

19/01/2021

The Nazi methods were so efficient because when enemy planes flew over Auschwitz they thought it was a factory or a train station because there was metal lanes through the grass that looked like train tracks. Also the Sonder-kommando method made people get on with what they were told to do and be quiet and all the dead bodies that were in the crematorium looked like they had been killed from the war.

what did they do?
did it work?
why was this resistance?

→ next page (table)

Warsaw Ghetto:

- 1 → Germans surrounded the ghetto to begin the deportations.
- 2 → Yes
- 3 → The Jewish had lived in the ghettos for over two years and was nearly starved and suffering from diseases.

Ghetto:

- 1 → The Nazi had a battle with the ŻOB and after moved to destroy the ghettos.
- 2 → Yes
- 3 → The ŻOB and having help with The United Partisan Organization attack the Nazis than managing to escape.

Camp:

- 1 → The remaining Jews blew the camps up, killed dozen officers and escaped to the woods.
- 2 → Yes and No
- 3 → The Jews had enough of living like they weren't humans and they weren't normal people it was a cruel place and they wanted freedom.

Lawyer Statements:

Show how this German couple are lying about not knowing what's going on?

Life. Changing. Learning.

Lilly Griffiths (Year 10) produced some very good work on the Nazis

Thursday 14th January 2021

The Final Solution

Aims

- Describe - How did persecution escalate?
- Explain - reasons were there for this?

Preparing the Final Solution

- In 1939, Germany invaded Poland which had much larger population of 3 million Jews.
- But in 1941, Germany invaded Russia which had a population of 9 million Jews.
- So far, they had been shooting Jews which they found in invaded countries.

Why might their tactics need to change?

- Shooting was taking too long and a faster solution was needed and it was effecting some of the troops that were shooting the Jews.

The Final Solution

- In January 1942, Himmler called a special Conference at ~~Wannsee~~ Wannsee, in Berlin.
- He told important Nazis that their methods were too inefficient.
- A new 'Final Solution' was necessary.

Wannsee conference

Remaining Jews shipped to 'resettlement' in camps/ghettos in Poland.

The Jews living in ghettos were to be used as a cheap source of labour.

Jews were to be rounded up and put into transit camps (ghettos).

How was the final solution going to be organised?

Women + children, the old and the sick sent for 'special treatment'.

Shooting was too inefficient as the bullets were needed for war effort. The young and fit would go through 'destruction'.

Arriving at camps the Jews would go through a process called 'Selection'.

Where were the death camps built?

Explain in your own words why they built the camps here in Poland.

There was a bigger Jewish population in Poland and they didn't want any of the German Jews to see.

The entrance of Auschwitz?

Why has it been built like a railway station?

They built Auschwitz like a railway station because if anyone in the countryside drove past they wouldn't think it was a prison for Jews (murder camp).

What might they mistakenly think Auschwitz was?

- A train station

Life. Changing. Learning.

Holly Jackson (Year 10) made really helpful revision sheets on Photosynthesis and Respiration



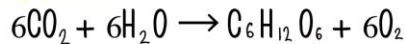
PHOTOSYNTHESIS

Photosynthesis uses energy to change carbon dioxide and water into glucose and oxygen.

WORD EQUATION:

Carbon dioxide + water $\xrightarrow{\text{Sun}}$ glucose + oxygen

SYMBOL EQUATION:



Plants use **GLUCOSE** for:

- Making cellulose
- Making amino acids
- Stored as oils or fats
- Stored as starch

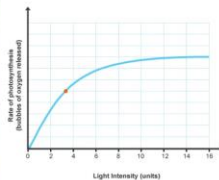
Limiting factors that affect the rate of photosynthesis:

Light – at night
Temperature – winter
Amount of CO_2

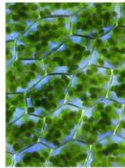
Chlorophyll can also be a limiting factor:

The amount of chlorophyll can be affected by disease, lack of nutrients and environmental stress. This can affect photosynthesis because the plant can't absorb as much light.

Chlorophyll is responsible for the absorption of light and the green pigment in plants.



Experiment: in the lab you can change the light intensity by moving a lamp closer or further away from a plant and measuring the amount of oxygen bubbles



RESPIRATION

Respiration is **NOT** "breathing in and out"

Respiration transfers the energy that the cell needs – this energy is used for all living processes.

Respiration happens in **every** cell in your body continuously.

Respiration **IS** the process of transferring energy from the breakdown of glucose (sugar).

Respiration is **EXOTHERMIC** – it transfers energy to the environment.

HOW ORGANISMS USE THE ENERGY TRANSFERRED BY RESPIRATION

- 1) To build up larger molecules from smaller ones
- 2) In animals it is used to allow muscles to contract
- 3) In mammals and birds the energy is used to keep their body temperature steady in cold surroundings.

All living things respire.

THERE ARE TWO TYPES OF RESPIRATION AEROBIC AND ANAEROBIC

Aerobic respiration

- REQUIRES OXYGEN
 - TAKES PLACE IN THE MITOCHONDRIA
 - COMPLETE GLUCOSE BREAKDOWN
 - LARGE AMOUNT OF ENERGY RELEASED
- GLUCOSE + OXYGEN \rightarrow CARBON DIOXIDE + WATER

Anaerobic Respiration

- DOES NOT REQUIRE OXYGEN
 - TAKES PLACE IN CYTOPLASM
 - PRODUCES LACTIC ACID
 - SMALL AMOUNT OF ENERGY RELEASED
- GLUCOSE \rightarrow LACTIC ACID (IN HUMANS)
GLUCOSE \rightarrow ETHANOL + CARBON DIOXIDE (IN PLANTS)

Life. Changing. Learning.

Year 9 Achievements

Mrs Giles is really pleased with the hard work of her two Year 9 English groups. They are studying Romeo and Juliet and their answers show excellent understanding of the play so far. Particularly hard working are **Bruno Osman-Hopes**, **Tom Blackford** and **Molly Still** in 9LC and **Hermione Bolton-Warner**, **Corey Fincher**, **Nia Christoforou**, **Reece Smith** and **Sky Styles** in 9RC. All are contributing regularly to discussion and sending some great finished work.

Bruno Osman-Hopes and Molly Still produced great work for their Romeo and Juliet invitations



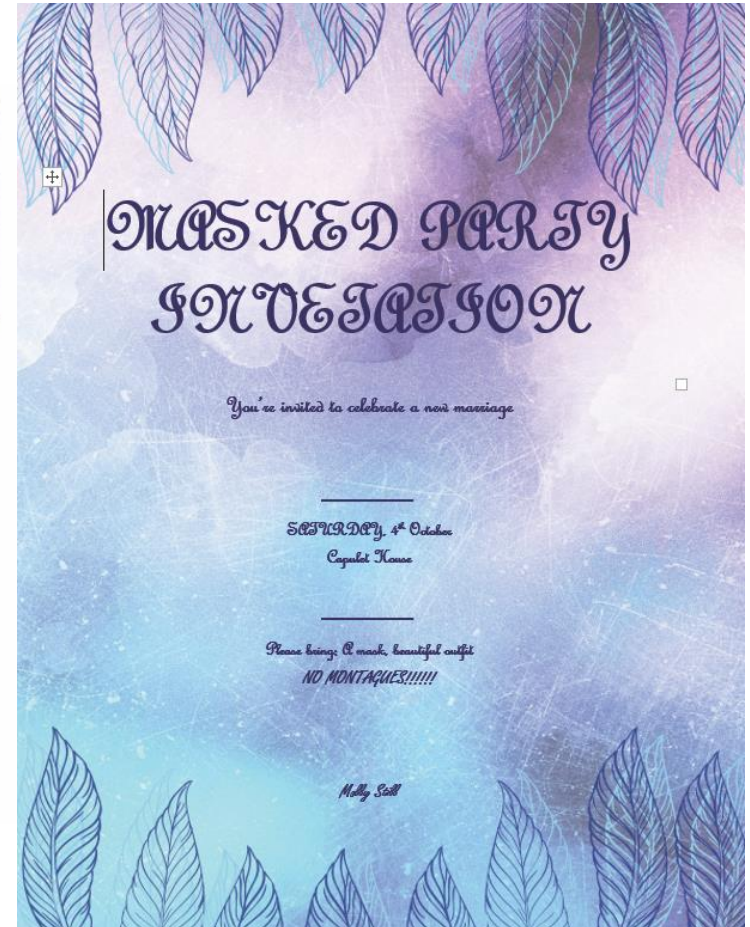
It's a party!

Time: 5:00-9:00,

Place: Capulet House,

Theme and dress code : Greek mythology

Montague's are not welcome.



Life. Changing. Learning.

Accurate Maths by Jasmine Crawford in Year 9

Friday 29 January 2021

$$10 - 2 \times 5 = 0$$

$$\sqrt{41 \times 89} = 67/10, 6.7$$

$$4. -4 \leq 2x - 1 \leq 10$$

$$+1 \quad +1 \quad +1$$

$$-3 \leq 2x \leq 11$$

$$\div 2 \quad \div 2 \quad \div 2$$

$$-3/2 \leq x \leq 11/2$$

$$5. -10 \leq 2x - 1 \leq -4$$

$$+1 \quad +1 \quad +1$$

$$-9 \leq 2x \leq -3$$

$$\div 2 \quad \div 2 \quad \div 2$$

$$-9/2 \leq x \leq -3/2$$

$$6. -10 \leq 4x - 2 \leq -4$$

$$+2 \quad +2 \quad +2$$

$$-8 \leq 4x \leq -2$$

$$\div 4 \quad \div 4 \quad \div 4$$

$$-8/4 \leq x \leq -2/4$$

$$7. -10 \leq 4x - 2 \leq 4$$

$$+2 \quad +2 \quad +2$$

$$-8 \leq 4x \leq 6$$

$$\div 4 \quad \div 4 \quad \div 4$$

$$-8/4 \leq x \leq 6/4$$

$$8. -10 \leq 4x - 2 \leq 8$$

$$+2 \quad +2 \quad +2$$

$$-8 \leq 4x \leq 10$$

$$\div 4 \quad \div 4 \quad \div 4$$

$$-8/4 \leq x \leq 10/4$$

$$9. -20 \leq 4x - 2 \leq 8$$

$$+2 \quad +2 \quad +2$$

$$-18 \leq 4x \leq 10$$

$$\div 4 \quad \div 4 \quad \div 4$$

$$-18/4 \leq x \leq 10/4$$

Life. Changing. Learning.

Excellent History by Lucy Bott in Year 9

Lucy Bott 9RD

The Battle of Britain

During the battle of Britain the RAF successfully fought off the German Luftwaffe until Hitler called off the proposed invasion.

There were many reasons why Britain 'won' the Battle of Britain.

Find out what they were! Using the information on the next page, write down why each of the following factors helped decide the outcome of this battle:

Radar: The strongest factors in the success of Britain's air defences. Radar could be used to detect any incoming enemy aircrafts.

Fuel: The fuel boosted the power of the Hurricanes and Spitfires from 1,000 to about 1,300 horsepower.

Codes: Despite the Germans finding out several of the British codes, Britain discovered the main code of the Germans which was the Enigma code.

Losses: Britain strongly defeated Germany by destroying more than 1,700 Luftwaffe. However, Britain had their losses too but with several Luftwaffe's being destroyed, it was clear that the British were the winners.

Plane production: Prior to the Battle of Britain, 4578 aircrafts were produced and the Spitfire played a crucial part in the victory of Britain winning.

Planning: The Luftwaffe launched a large attack, which was set to wipe out Britain's air defences. However, Britain ended up destroying the Luftwaffe.

Lucy Bott 9RD

It's time to join the RAF! Using what you've learned and the sources on the information page, write a diary entry, a letter, or a radio interview from the point-of-view of an RAF pilot.

You could include things such as: your training, strengths and weaknesses of your plane, time spent in the air and for resting, fighting conditions, morale, how the war is going, etc.

Dear Diary,

What a long, exhausting day it has been! Day after day, there is not one moment where the radio is silent. It is so repetitive that I feel like my ears are ringing all of the time! My training wasn't the easiest and it took a lot of perseverance. However, the first time I ever flew the Spitfire was such an unforgettable experience and it is certainly one that I will remember for the rest of my life.

The spitfire is a delight to fly and it is extremely fast. However, at times, the hurricane is better to use because it is slower. We spend so much time in the air. When we aren't in the air, we have the radio ringing in our ears for every minute of every day. We are always up on our feet and rarely get a minute of rest. When we are given the opportunity to rest, we take it, treasure it and enjoy every minute of peace that we have.

The conditions that we have to fight in are quite simply horrific and each day makes us all feel so deflated. Despite us being proud of our achievements, it is certainly not easy fighting in the Battle of Britain. The morale of everyone here fluctuates! There are good days and bad days! However, we will keep fighting until we claim victory!

Now time to get some sleep ready for another busy day.

Lucy

Life. Changing. Learning.

- After 40 years in charge, von Weizsäcker stepped down in 1994. He was replaced by Roman Herzog, the 1995 Nobel Peace Prize laureate. Herzog's tenure was marked by the 1998 election of Chancellor Schröder, who was seen as a more liberal leader than his predecessor, Helmut Kohl. Schröder's government was seen as more liberal than his predecessor, Helmut Kohl.
- The German Basic Law (Grundgesetz) of 1949 established a federal system with a strong executive branch. The president is elected by a federal assembly (Bundesversammlung) for a five-year term, renewable once. The president appoints and dismisses judges, officers, and other officials. The president also represents Germany abroad.
- The German Basic Law (Grundgesetz) of 1949 established a federal system with a strong executive branch. The president is elected by a federal assembly (Bundesversammlung) for a five-year term, renewable once. The president appoints and dismisses judges, officers, and other officials. The president also represents Germany abroad.

Tip Sheet

A note to students: The excellent resource for the first component of English is content to conduct the air and land war against the English Normans more effectively.

4. Why do you think it was so important for Captain Jack to see that the Lushai should observe the flag of truce?

Initially, they said that Germany's borders would remain largely intact, and that many of the RAF's aircraft. The German leaders were convinced by German fighter aircraft such as the Messerschmitt, which were supposed to come down only in their highest phases, such as fighters and their crews, who attacked the borders. As John J. Brown, the German foreign minister, said in a speech, the German thought they had a good chance of destroying the British at home.

44. The *Chaperon* jewelry company processes about 100,000 carat diamonds a month. It is interested in the impact of weight on the following:

● None of the British pilots were experienced or professional. They had not received anything like the training the German pilots had. One German pilot, Hans-Joachim Wiese, who had fought in Spain and France, Germany had been training British pilots in a month. Britain just didn't.



SOURCE: Researchers had a signed statement from the chair of the board, written against Communist infiltration.

However, the Germans had their problems, too. Their system meant only very rough and ready cost figures for 30 minutes at a time. The Chinese system was used to the same function, which made it easier

The farmers were using more plows than the British (see Figure 4). They were important, with German production of lighter plows averaged 100 plows per month. The British matched that. Factors from producing heavier plows in producing lighter plows. They were making an average of 500 iron plows per month from July to September.

© 2005 Blackwell Publishing Ltd *Journal of Internal Medicine* 258: 105–112

	Article	Comment
1-10-2000	27	1.08
10-21-2000	28	1.17

1-21 August	120	200
22-31 August	240	332
1-13 September	268	293
14-23 September	112	212
24-30 September	152	147
1-10 October	87	141
Total	1116	1465

As 4th graders, whether girls or boys, I just know they're the Captain or the First Officer in training. We find it interesting to see students in their own words. They share on September 17 this beautiful poem and called off.



SOURCE ▶ A photograph of a fossilized skull, showing the eye socket and nasal cavity.

SOURCE 8: A photograph of a Gertie Jordan near the White Cliffs of Dover, c.1900.

TABLE 7. *Staphylococcus aureus* and *Staphylococcus epidermidis*[illegible][illegible]

2. Effect of "bad" on "good" is a
direct consequence of August
1945? Explain why.

With part of the Justice of Belgium 525 were added, put

many young men
encouraged to be brave
when the you think they are
not? Reading Source 1 and
help you.

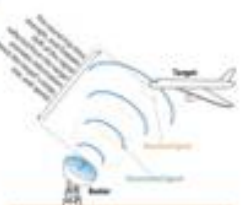
Excellent History
by **Lucy Bott,**
Year 9

The British development of radar was extremely important in the defence of Britain, but particularly during the air-based Battle of Britain.

Long- and short-range radar meant the British could detect enemy air formations approaching the coast, and 'scramble' (launch) RAF fighters to intercept the German aeroplanes before they reached their targets.

Initially the German Luftwaffe (Air Force) targeted the British radar stations and airfields, but didn't maintain this focus.

The British 'Chain Home System' is perhaps the best-known radar used.



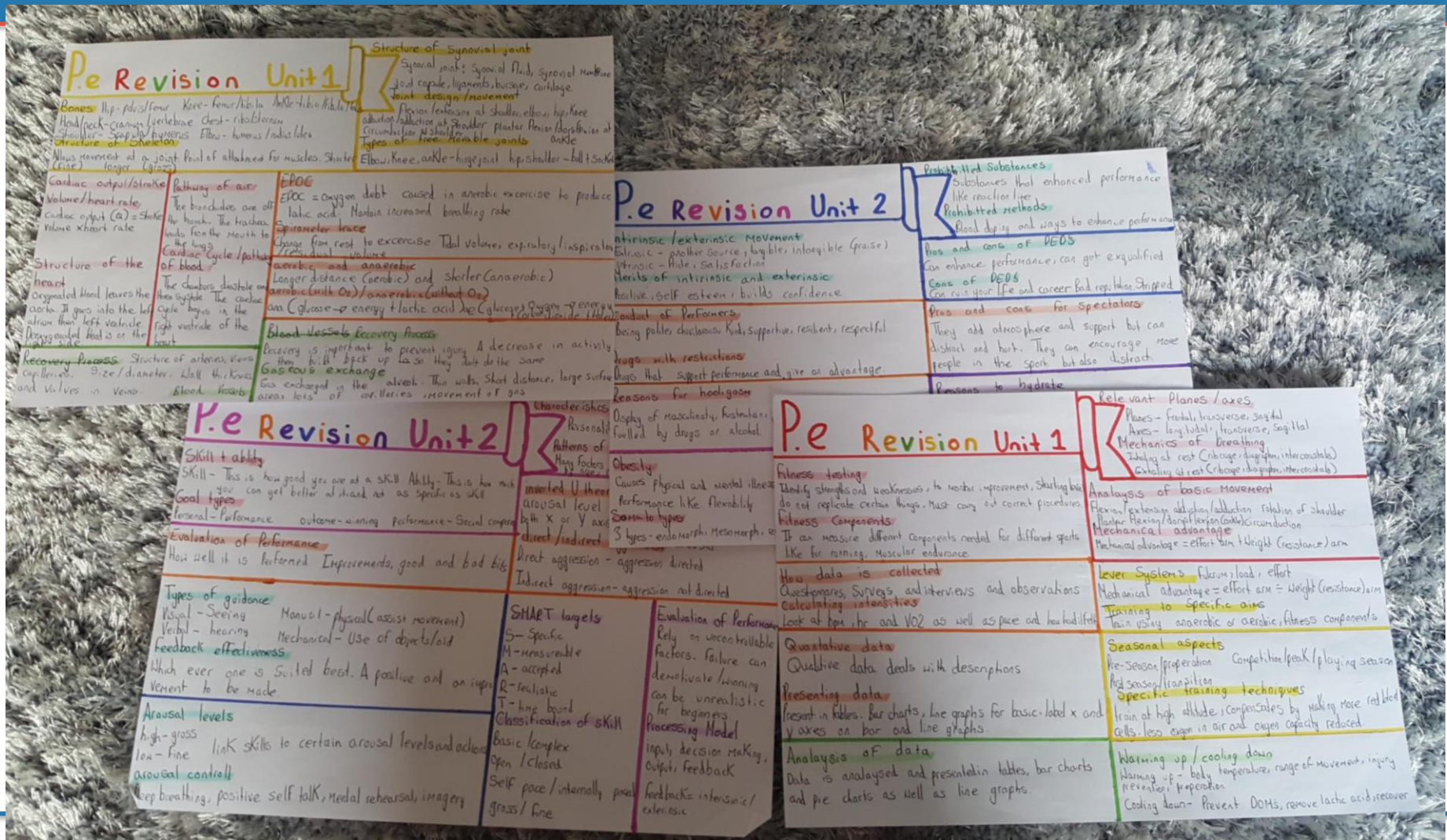
The Germans had developed an extremely complex coding system using a machine called the 'Enigma' machine. (Looked like a typewriter.) It coded messages for sending by radio transmitter but also kept the codes secret by changing the code every time it was used.

British Military Intelligence units had secretly managed to capture a Enigma machine from a German U-boat (submarine) and under the code-name 'Ultra', a team of scientists and code-breakers based at Bletchley Park secretly spent months working to break the code.

The German *Luftwaffe* was notoriously poor at protecting its communications and so this along with the British de-ciphering of the Enigma, meant intercepted German communications could tell the British when, where and in what number the *Luftwaffe* would attack.



Excellent PE Theory by Bea Rusby



Life. Changing. Learning.

Mrs Giles Year 9 'Bring your pet to English' lesson.

They studied 'Romeow and Julipet'

The screenshot shows a Microsoft Teams meeting interface. The title bar at the top of the meeting window reads "09 R . English C". The meeting duration is 25:13. The meeting grid displays nine participants, each with a pet-themed video feed. The participants are:

- Burton, Jacob (Student, W09MDD J9)
- Christoforou, Nia (Student, B09JEN J7)
- Bolton-Warner, Hermione (Student, B09JEN J7)
- Hughes, Jimmi (Student, W09LRK J8)
- Jesion, Oliver (Student, B09JEN J7)
- Pearce, Jessica (Student, D09JB L10)
- Fincher, Corey (Student, R09ES K14)
- Styles, Sky (Student, R09ES K14)
- Stock, Calum (Student, B09JEN J7)

The chat window on the right shows the following messages:

- J9) 10:03 AM one sec
- Christoforou, Nia (Student, B09TFS J6) 10:03 AM he's with me
- awwww
- Styles, Sky (Student, R09ES K14) 10:04 AM yes
- yes again
- Last read
- can I have your cat please miss

The Windows taskbar at the bottom shows the time as 10:08 on 22/01/2021.

life. Changing. Learning.