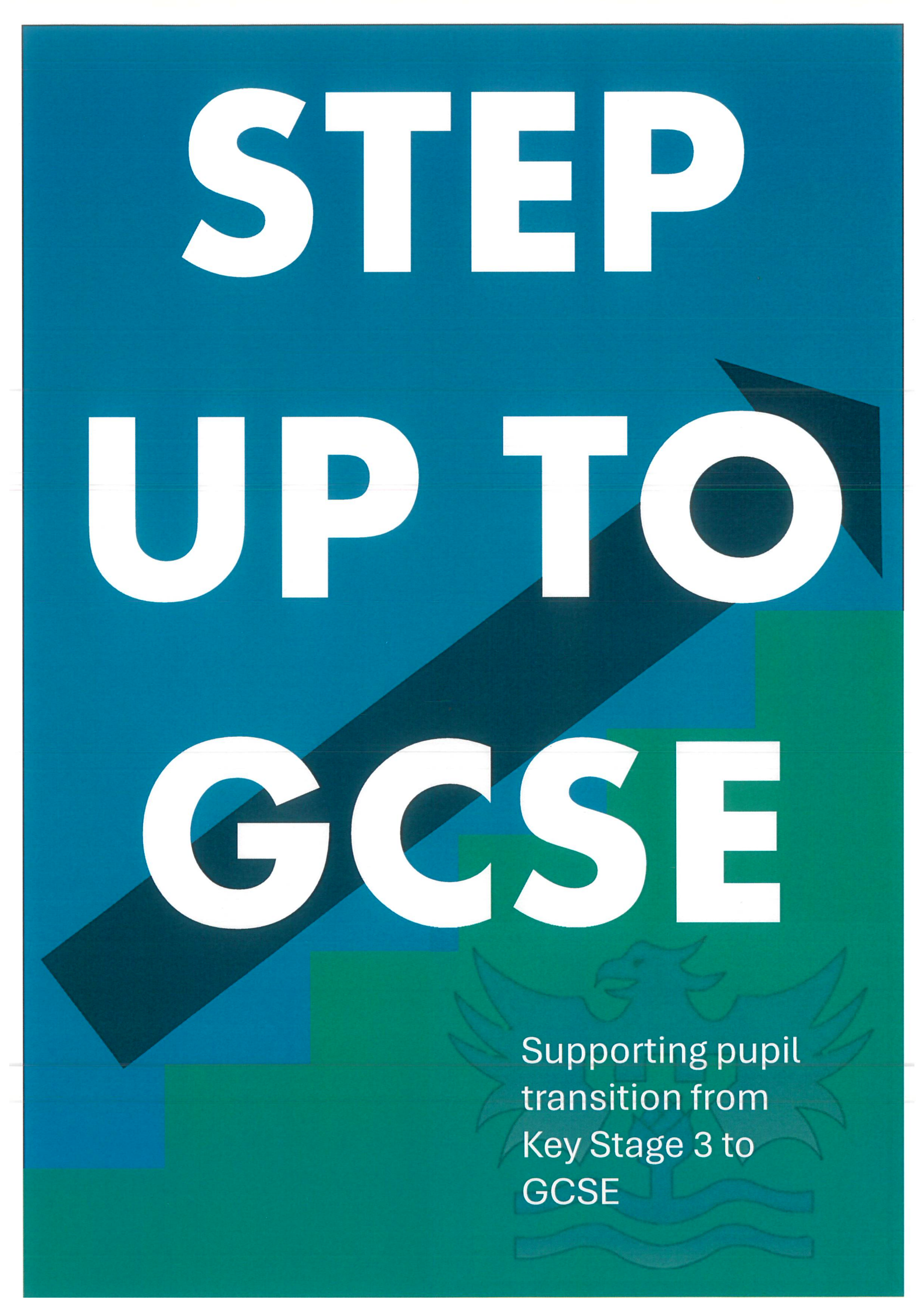


STEP UP TO GCSE



Supporting pupil
transition from
Key Stage 3 to
GCSE



Introduction

The contents of this booklet have been created by your subject teachers at Castle Donington College to help you to make a smooth and positive transition from Key Stage 3 to GCSE.

You will need to commit the time to completing the work/learning the contents before returning to school on Thursday 28th August.

Some subjects may require you to simply learn the content, while others might require you to produce something or practice something.

When you return to school, you may be tested on this work to assess your engagement and commitment to your studies and option subjects.

Only focus on the subjects you know you will be studying. This is particularly important when working on the “options” section. If you are not doing the subject at GCSE, do not complete the work for that subject.

Section One: Core Subjects

Contents:

1. English
 2. Foundation Mathematics
 3. Higher Mathematics
 4. Science: Biology
 5. Science: Chemistry
 6. Science: Physics
-
-

Step up to GCSE - English	
Historical context	
Animal Farm is a very detailed allegory . This means on the surface it appears to be a story about animals on a farm that take control from their farmer. However, on a deeper level this story is symbolic or representative of the events that took place in Russia from 1917 to 1945 when the book was published. Every character and every plot event is symbolic or representative of someone or something that happened in the early days of Soviet Russia.	The conflict between Napoleon and Snowball is symbolic of the conflict between Joseph Stalin and Leon Trotsky. Both were prominent members of the Communist Party in Russia during the times of Vladimir Lenin's leadership, but it was Stalin not Trotsky that gained power after Lenin felt ill. As soon as Stalin gained power he began a propaganda campaign against Trotsky and forced him into exile, meaning he had to leave Russia. Eventually Trotsky was assassinated by a Spanish Communist in Mexico where he was living at the time.
Stalin was ruthless as leader of the Soviet Union. He held 'show trials' where his political opponents were put on 'trial' in public and found guilty of a number of crimes. However, the trials were a sham as the accused already knew they would be found guilty. These show trials are mirrored in Napoleon's own show trials of the animals, accusing them of being in league with Snowball.	Leon Trotsky (born Lev Davidovich Bronshtein) was a close ally of Bolshevik leader Vladimir Lenin in the early days of the group and helped to build the original Soviet state in Russia.
As Stalin's power grew, so did his paranoia. Millions of Russian citizens were imprisoned in 'gulags' – isolated prison camps where inmates lived and worked in horrendous conditions. It's estimated around 18 million people were in the camps from the 1920s to Stalin's death in 1953, with around 1.6 million dying as a result of being worked to death.	Trotsky was very critical of Stalin's policies, particularly his attempts to prevent democracy in the Communist Party and for not planning the economy properly, in his view. To counter this, Stalin created a massive propaganda campaign against Trotsky. He lost his position as war commissariat and in 1927 was expelled from the Communist Party. He was forced to relocate to the remote Alma-Ata in the Soviet Union, and in 1929 he was expelled from the Soviet Union completely.
During his time in power, Stalin used endless propaganda and manipulation to control the people and their ways of thinking. These methods terrified writer George Orwell and he would later create the dystopian novel '1984' which looked at a Soviet-style Britain.	After spending 7 years living in Turkey, France and Norway, Trotsky eventually relocated to Mexico. In 1940, having already survived a machine-gun attack on his house, Trotsky was assassinated by Ramon Mercader, a Spanish Communist, who attacked Trotsky with an ice-axe.
Tsar Nicholas II was the Emperor of Russia and lived a life of luxury and abundance whilst the people of Russia were poor and lived in harsh conditions. His lack of interest in their plight bred resentment. In 1905 a large group of workers marched to the Tsar's palace to deliver a petition demanding better working conditions. As they did so, soldiers fired on them and some of the workers were killed. As a result this day on 22nd January became known as 'Bloody Sunday' . After this day resentment against the Tsar and desire for change grew rapidly.	In 1917 things changed forever in Russia when the Russian Revolution took place . The ordinary people of Russia were tired of the lives they were forced to lead. Working for little money, living on little food and performing jobs in atrocious conditions, the ruling classes treated the poorest very much like animals, denying them rights and ignoring their demands for improvements. In 1917, after the first three years of the First World War had decimated the Russian population by millions,, This transformed the Russian Empire into the Soviet Union. Vladimir Lenin and a group known as the Bolsheviks led a revolution where they took power from Tsar Nicholas II and created a Soviet or a communist government of the people.
Old Major, the pig who inspires the animal revolution, is representative of the ideas of Karl Marx and Vladimir Lenin. Karl Marx was a political philosopher whose work 'Das Kapital' (1867-1894 in 3 volumes) inspired Lenin and the Bolsheviks to rise up against the Tsar and seize power in Russia.	

Chapter Plot Events	Key Quotations
9	The animals begin the work of rebuilding the windmill. Boxer once again works the hardest, even though he is in a lot of plain through a split hoof. He wants to get the windmill running before he retires. Again, food supplies are worsening, but Squealer claims the statistics show the opposite. Napoleon fathers 31 piglets and says a schoolroom will be built for them. The animals have their rations reduced even further, although the pigs and dogs seem very healthy. Boxer's hoof heals and he works even harder, but he collapses with a lung condition. Squealer tells the animals that Napoleon is sending Boxer to a special animal hospital in Willingdon where he will be treated. However, when the truck arrives to take Boxer away, Benjamin realises it is from a knacker or glue-boiler. Boxer is being taken to his death. Clover tells Boxer to kick his way out, but he is now too weak to be able to do so. Squealer later claims that Boxer WAS taken to the veterinarian but the vet had bought a truck from the knacker and hadn't had a chance to repaint it. Somehow the pigs find enough money to order a crate of whisky. In the final chapter we learn many of the animals have now died. Clover is 14 years old although has not retired and no animal ever has. The farm has increased in size due to the purchase of two of Mr. Pilkington's fields and a SECOND windmill has been completed to mill corn. The animals continue to suffer but the pigs lead lives of luxury. Clover is later shocked to discover Squealer walking on his back legs. Indeed, ALL the pigs are doing so. Napoleon now carries a whip, smokes a pipe and wears Mr. Jones' old clothes. The sheep have been taught a new slogan: "Four legs good, two legs better!" All of the commandments on the barn have been replaced with: "All animals are equal, but some animals are more equal than others." At the very end of the text, a number of local farmers are being given a tour of the farm and later head to the farmhouse for card games and drinking with the pigs. Pilkington toasts the farm and its brutal treatment of its animals. Napoleon claims animals will no longer say 'comrade', will not meet on Sundays and the flag will be altered so it is plain green. Finally, Animal Farm will go back to its original name of 'The Manor Farm'. The pigs and humans start arguing after it turns out both Pilkington and Napoleon have cheated in their card game. The animals watch on from the window as they can no longer distinguish between the humans and the pigs.
	"But doubtless it had been worse in the old days. They were glad to believe so. Besides, in those days they had been slaves and now they were free, and that made all the difference, as Squealer did not fail to point out." "Somehow it seemed as though the farm had grown richer without making the animals themselves any richer — except, of course, for the pigs and the dogs." "FOUR LEGS GOOD. TWO LEGS BETTER!"  

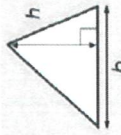
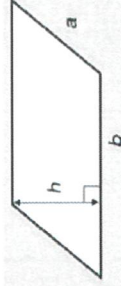
Areas

$$\text{Rectangle} = l \times w$$

$$\text{Parallelogram} = b \times h$$

$$\text{Triangle} = \frac{1}{2} b \times h$$

$$\text{Trapezium} = \frac{1}{2} (a + b)h$$



Circles

$$\text{Circumference} = \pi \times \text{diameter}, C = \pi d$$

$$\text{Circumference} = 2 \times \pi \times \text{radius}, C = 2\pi r$$

$$\text{Area of a circle} = \pi \times \text{radius squared}, A = \pi r^2$$

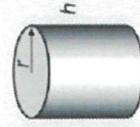
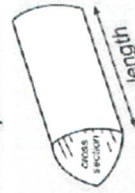
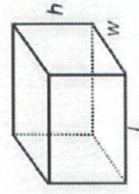


Volumes

$$\text{Cuboid} = l \times w \times h$$

$$\text{Prism} = \text{area of cross section} \times \text{length}$$

$$\text{Cylinder} = \pi r^2 h$$



Constructing Pie Charts

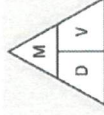
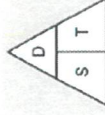
The angle to draw for each sector is

$$\text{Angle} = \frac{\text{frequency}}{\text{total}} \times 360^\circ$$

Compound measures

$$\text{Speed} = \frac{\text{distance}}{\text{time}}$$

$$\text{Density} = \frac{\text{mass}}{\text{volume}}$$



Angles in Polygons

$$\text{Sum of Interior Angles} = (n - 2) \times 180^\circ$$

Where n is the number of sides of the shape

Exterior Angles add up to 360°

$$\text{One exterior angle in a REGULAR polygon} = \frac{360^\circ}{n}$$

Pairs of Interior and Exterior Angles add up to 180°

Compound Growth & Decay

The amount after n years (or days, etc.) is:

$$\text{starting amount} \times \left(1 \pm \frac{r}{100}\right)^n$$

where r is the rate of change.

The $\pm$ means + for growth and - for decay

Equations of Straight Line Graphs

Gradient:

$$m = \frac{y_2 - y_1}{x_2 - x_1}$$

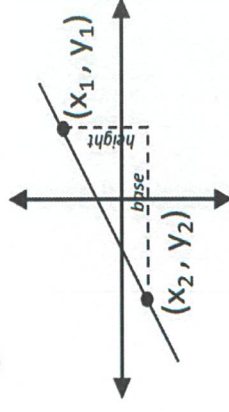
or

$$m = \frac{\text{height}}{\text{base}}$$

$$\text{Equation of a Line} \\ y = mx + c$$

Midpoint of 2 points (x_1, y_1) and (x_2, y_2)

$$\left(\frac{x_1 + x_2}{2}, \frac{y_1 + y_2}{2} \right)$$



Pythagoras

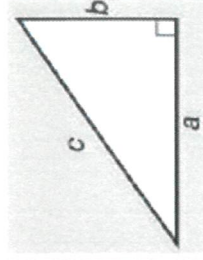
Pythagoras' Theorem

For a right-angled triangle,

$$a^2 + b^2 = c^2$$

Trigonometric ratios (new to F)

$$\sin x^\circ = \frac{\text{opp}}{\text{hyp}}, \cos x^\circ = \frac{\text{adj}}{\text{hyp}}, \tan x^\circ = \frac{\text{opp}}{\text{adj}}$$



FOUNDATION

Step up to GCSE

Foundation

Maths

FORMULAE YOU NEED

TO LEARN FOR

FOUNDATION GCSE

MATHS



Step Up to Foundation GCSE Maths

Task 1 – Try and learn the formulae required for Foundation GCSE Maths

Task 2 – Attempt the 20 questions below

Name :

FB6.3

Question 1 Round 0.56981 correct to 2 decimal places	Question 2 Round 30.68845 correct to 2 decimal places	Question 3 Express 22% as a fraction in its lowest form	Question 4 Express as a percentage $\frac{3}{20} =$
Question 5 Work out $260 + 175 =$	Question 6 Work out $963 \div 3 =$	Question 7 Solve $x \div 4 = 7$	Question 8 Solve $13x - 4 = 61$
Question 9 Work out $59 + 7 \times 4$	Question 10 Work out $2 + 5 \times 2 - 6$	Question 11 Work out the value of $26 + 3x$ when $x = -3$	Question 12 Work out the value of $30 - 3x$ when $x = 3$
Question 13 Expand $2(3x + 1)$	Question 14 Expand and simplify $5(2x + 5) + 5(4x + 5)$	Question 15 Find 20% of £80	Question 16 Find 10% of £340
Question 17 List the factors of 48	Question 18 What is the 6th cube number?	Question 19 Simplify $24 : 56$	Question 20 Simplify $55 : 25$

SKILLS CHECK

Score

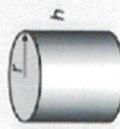
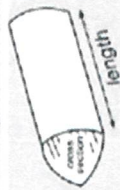
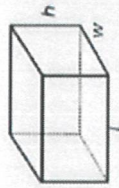
Volumes

$$\text{Cuboid} = l \times w \times h$$

$$\text{Prism} = \text{area of cross section} \times \text{length}$$

$$\text{Cylinder} = \pi r^2 h$$

$$\text{Pyramid} = \frac{1}{3} \times \text{area of base} \times h$$



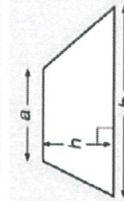
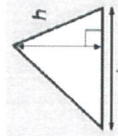
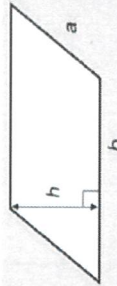
Areas

$$\text{Rectangle} = l \times w$$

$$\text{Parallelogram} = b \times h$$

$$\text{Triangle} = \frac{1}{2} b \times h$$

$$\text{Trapezium} = \frac{1}{2} (a + b)h$$



Quadratic equations

The Quadratic Equation

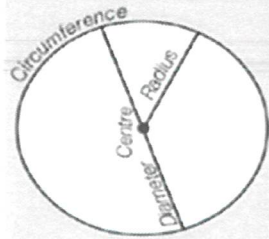
The solutions of $ax^2 + bx + c = 0$, where $a \neq 0$, are given by $x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$

Circles

$$\text{Circumference} = \pi \times \text{diameter}, C = \pi d$$

$$\text{Circumference} = 2 \times \pi \times \text{radius}, C = 2\pi r$$

$$\text{Area of a circle} = \pi \times \text{radius squared}, A = \pi r^2$$



Trigonometric formulae

$$\text{Sine Rule } \frac{a}{\sin A} = \frac{b}{\sin B} = \frac{c}{\sin C}$$

$$\text{Cosine Rule } a^2 = b^2 + c^2 - 2bc \cos A$$

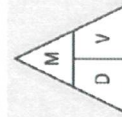
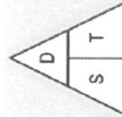
$$\text{Area of triangle} = \frac{1}{2} ab \sin C$$



Compound measures

$$\text{Speed} = \frac{\text{distance}}{\text{time}}$$

$$\text{Density} = \frac{\text{mass}}{\text{volume}}$$

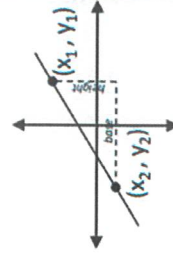


Gradient of a Line

$$m = \frac{y_2 - y_1}{x_2 - x_1}$$

or

$$m = \frac{\text{height}}{\text{base}}$$



Perpendicular Gradients

Given a gradient of a line m , the gradient of the line perpendicular to it is: $-\frac{1}{m}$

Angles in Polygons

Sum of Interior Angles $= (n - 2) \times 180^\circ$
Where n is the number of sides of the shape

Exterior Angles add up to 360°

$$\text{One exterior angle in a REGULAR polygon} = \frac{360^\circ}{n}$$

Pairs of Interior and Exterior Angles add up to 180°

Compound Growth & Decay

The amount after n years (or days, etc.) is:

$$\text{starting amount} \times \left(1 \pm \frac{r}{100}\right)^n$$

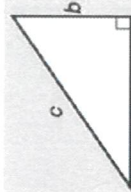
where r is the rate of change.

The $\pm$ means + for growth and - for decay

Pythagoras

Pythagoras' Theorem

For a right-angled triangle,
 $a^2 + b^2 = c^2$



Trigonometric ratios (new to F)

$$\sin x^\circ = \frac{\text{opp}}{\text{hyp}}, \cos x^\circ = \frac{\text{adj}}{\text{hyp}}, \tan x^\circ = \frac{\text{opp}}{\text{adj}}$$



HIGHER



Step up to GCSE Higher Maths

FORMULAE YOU NEED TO LEARN FOR HIGHER GCSE MATHS

$$\text{Area of a Sector} = \frac{\theta}{360^\circ} \times \pi r^2$$

Length of an Arc

$$A = \frac{\theta}{360^\circ} \times \pi d$$

Step Up to Higher GCSE Maths

Task 1 – Try and learn the formulae required for Higher GCSE Maths

Task 2 – Attempt the 20 questions below

Name :

HA2.2

Question 1 Expand and simplify $(x + 4)(x + 1)$	Question 2 Expand and simplify $(4x + 6)(3x + 6)$	Question 3 Factorise $35x - 21$	Question 4 Factorise fully $22x^2 - 55x^3$
Question 5 Factorise $x^2 - 6x - 7$	Question 6 Factorise $x^2 - 4x - 12$	Question 7 Make x the subject of the formula $y = ax^2$	Question 8 Make x the subject of the formula $y = (ax)^2$
Question 9 Work out $9.6 \div 0.8 =$	Question 10 Work out $3 \div 0.2 =$	Question 11 Work out $3\frac{7}{10} - \frac{3}{5}$	Question 12 Work out $1\frac{4}{5} \times 2\frac{1}{3}$
Question 13 Divide 1440g in the ratio 1 : 7	Question 14 Divide £1400 in the ratio 5 : 3	Question 15 Work out the value of $7x - 9y$ when $x = 1$ and $y = 8$	Question 16 Work out the value of $6x^2 + y$ when $x = -4$ and $y = 7$
Question 17 The mean of 11, x, 21, 19, 45 is 23. Find x	Question 18 The mean of 13, x, 10, 11, -4 is 7. Find x	Question 19 Solve $\frac{x}{4} + 3 = 3x - 19$	Question 20 Solve $5(3x + 4) = 95$

SKILLS CHECK

Score

Step up to GCSE Science - Structure and Bonding

Key words and definitions

Ionic bond	Bond in which electrons are transferred from a metal to a non-metal.
Electron	Negatively-charged sub-atomic particle.
Covalent bond	Bond in which electrons are shared between non-metals.
Metallic bond	Bond in which positive metal ions are held by electrostatic attraction in a sea of delocalised electrons.
Compound	2 or more different types of atom chemically bonded together.
Polymer	Millions of small molecules joined together to form a large molecule.
Nanoparticle	Nanoparticles are structures, 1-100 nanometres (nm) in size, that usually contain only a few hundred atoms.

Ionic bonding

If an atom gains electrons, it becomes a negative ion (non-metal). If an atom loses electrons, it becomes a positive ion (metal).

Once you have two (or more ions) they are attracted to each other because they have opposite charges. The force that draws them together is called the electrostatic force of attraction.

Covalent bonding

Covalent bonds occur between non-metals and non-metals. Electrons are shared.

When ions come together into a larger structure it is called a giant ionic lattice. In covalent bonding, when the atoms (remember they have no charge so aren't ions) come together they can either form a giant covalent substance or a simple molecular substance.

Polymers are very long molecules with atoms held together by covalent bonds. The molecules are held together by intermolecular forces.

Metallic bonding

Metals want to lose their electrons to form a full outer shell. The electrons in the outer shell become delocalised, which means they are free to move leaving a positive ion behind. The positive ions are then attracted to the delocalised electrons by the electrostatic force of attraction.

Metals have high melting and boiling points because the electrostatic force between the delocalised electrons and metal ions is strong. Metals are malleable (easy to bend and shape) because the layers of ions can slide over each other. Metals are good conductors of electricity because the delocalised electrons carry electrical charge through the metal.

Allotropes of carbon			
	Graphene	Fullerene	Nanotube
Structure	One layer of graphite	A hollow cage of carbon atoms	A hollow tube of carbon atoms
Uses	Electronics: very effective conductor of electricity due to free electrons Very strong so useful in advanced materials (composites)	Drug delivery for medical applications Lubricants (weak forces between cages so easy for cages to slip over each other) Catalysts	High tensile strength so can be used in composite materials e.g. tennis rackets High electrical conductivity

Key words and definitions

Bacteria	Large microbe - Divides by splitting in two. May produce toxins to make us ill Cause: • Salmonella – food poisoning • Gonorrhoea – sexually transmitted disease (STD)
Viruses	Smallest microbe. Reproduce inside cells Cause: • Measles – can be fatal • HIV – can turn into AIDS • Tobacco mosaic virus (TMV) affects photosynthesis in plants
Fungi	The other type of microbe. Cause: • Rose black spot – affects photosynthesis in plants
Pathogens	Microbes/microorganisms that cause diseases. Spread by air, contact and water
Pathogens	Communicable diseases—Infectious diseases that can be passed from one person to another. Caused by pathogens
Malaria	Is a protist disease. Spread by mosquito bites
Causes of ill health	Pathogens, diet, stress, life situations/conditions
Non-communicable diseases	Cannot be transmitted from one person to another Eg heart disease, arthritis
Ignaz Semmelweis	Doctor in mid-1850s who persuaded doctors to wash their hands
Louis Pasteur	Showed that microbes caused disease. Developed vaccines
Vaccines	An inactive form of a pathogen used to prepare your immune system
Antiseptic	A substance that kills or stops the growth of germs which cause disease.
Antiseptic techniques	Name given to the laboratory procedures carried out to prevent the contamination of pure cultures of microorganisms.
Colonies	A visible cluster of microorganisms.
Agar gel	A jelly-like substance that is derived from a type of seaweed and used in the lab as a medium on which to grow bacteria and fungi.
Agar plate	A Petri dish that contains agar gel and usually some nutrients. Agar plates are used to culture (grow) bacteria and fungi in the lab.

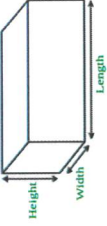
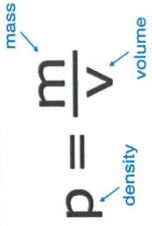
- Human defences against pathogens include; Skin barrier - covers your body. Nose - hair and mucus act as trap. Trachea and bronchi – covered in cilia and mucus. Stomach - makes acid to destroy. Immune system – white blood cells
- White blood cells defend us by - Phagocytosis ingest microbes. Produce antibodies chemicals to destroy microbes. Produce antitoxins chemicals to cancel-out toxins made by pathogens

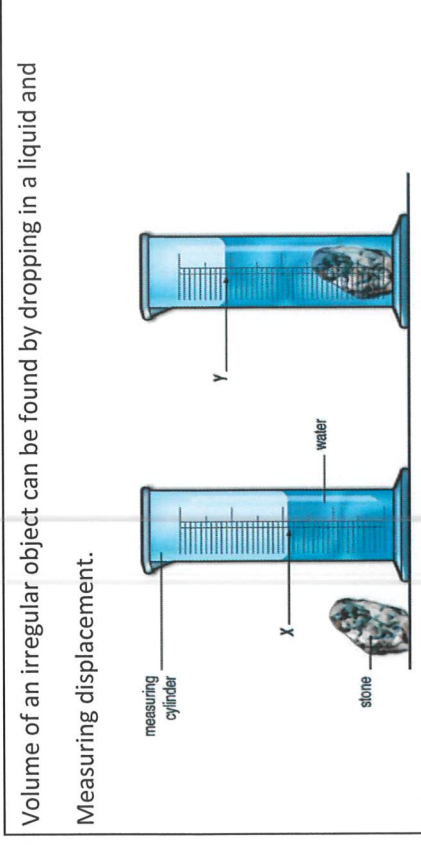
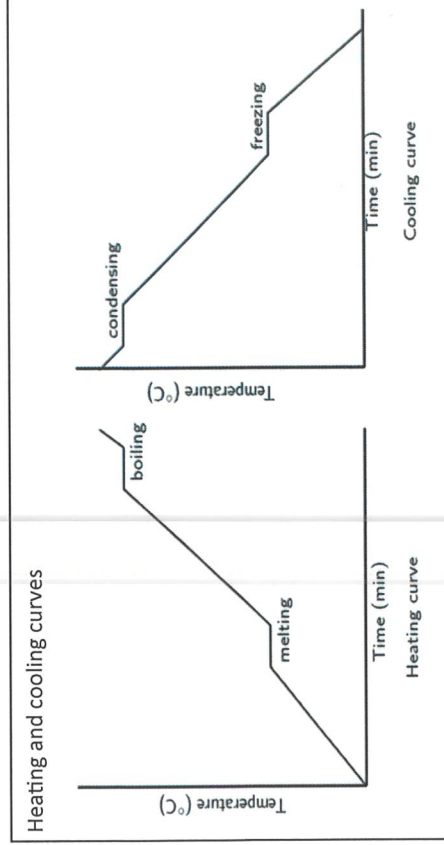
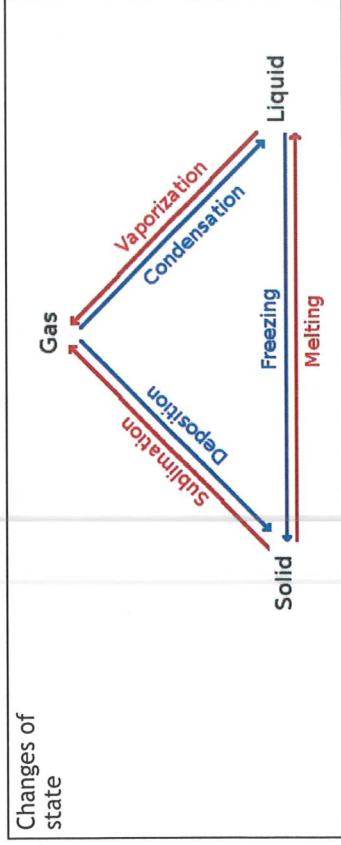
Preparing agar plates and investigate the effect of antiseptics or antibiotics on bacterial

Glass Petri dishes and agar gel must be sterilised before use in an autoclave, or pre-sterilised plastic	this will kill any bacteria that are present in the solution or on the Petri dishes.
Pour the sterile agar plates and allow to set fully.	this provides the selected bacterium with all the nutrients needed to grow.
Sterilise the inoculating loop, by heating it in the Bunsen burner flame.	kills any bacteria that are present on the loop.
Dip the inoculation loop into the microorganism solution and make streaks on the surface of the agar plate.	this allows the bacteria to spread out and to grow in individual colonies on the agar plate.
Replace the lid as soon as possible, secure with tape. Label and invert the plate, and store upside down.	this stops additional unwanted bacteria in the air contaminating the plate. Do not fully seal the lid, as this will stop oxygen reaching the bacterium.
Incubate at a maximum temperature of 25°C in schools and colleges.	this reduces the chance of growing harmful pathogens. Hospital laboratories would incubate plates at 37°C (body temperature) to allow quick growth and identification.
Soak filter paper disks in a variety of solutions, using different concentrations or a variety of different solutions.	this will kill any bacteria that are present in the solution or on the petri dishes.
Pour the sterile agar plates and allow to set fully.	the effectiveness of the solutions at killing the bacteria
Measure the clear area around the soaked filter paper disks. A control disk must be also included.	size of zone indicates the effect of the substance tested on the growth of the specific bacterium.

Step up to GCSE Science—Molecules and matter

Key words and definitions

Solid	Particles held together in fixed positions by strong forces. Least energetic state of matter.
Liquid	Particles move at random and are in contact with each other. More energy than solids, less than gas.
Gas	Particles move randomly and are far apart. Weak forces of attraction. Most energetic.
Mass, m	Amount of matter in something. Measured in kg.
Volume, V	Amount of space something takes up. Measured in m ³ Volume of a cuboid = w x d x h 
Density, p	Mass per unit volume. Measured in kg/m ³ $p = \frac{m}{V}$ 
Latent heat	Energy transferred when a substance changes state but temperature doesn't change. Latent heat (J/kg) = energy transferred (J)/mass (kg)
Specific latent heat of fusion	Energy needed to melt 1kg of solid into liquid.
Specific latent heat of vaporisation	Energy needed to boil 1kg of liquid into gas.
Pressure	The physical force exerted on an object . pV = constant



Section Two: Option Subjects

Contents:

1. Art and Design
 2. Child Development
 3. Citizenship
 4. Design and Technology
 5. Drama
 6. Food Preparation and Nutrition
 7. French
 8. Geography
 9. Graphics
 10. History
 11. Media
 12. Music
 13. Physical Education
 14. Spanish
 15. Textiles
-

Remember to only complete the topics for the options you have chosen/been allocated.

STEP UP TO FINE ART GCSE

YOUR SUMMER ASSIGNMENT

This is your GCSE Fine Art summer assignment, and it can be counted as part of your actual GCSE. Please read the following instructions carefully, look closely at the examples and above all else, enjoy the art you love!

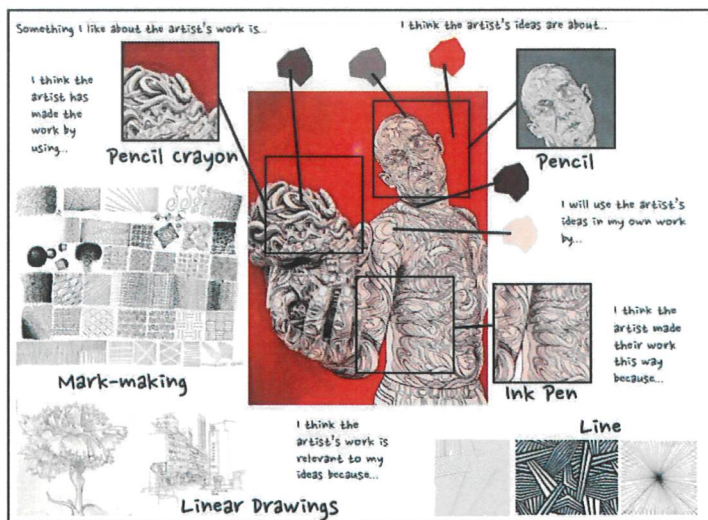
TASK 1: Find some art you love!

Find a piece of artwork that love... The artist who made can dead, alive, famous, none famous – anyone.

The only rule: the artwork must relate to our first GCSE topic – 'NATURAL FORMS'.

Print it, rip it out of a magazine or newspaper.

Or, even better, if you get the chance to go to an art exhibition over the summer, pick up a postcard of your favourite artwork.



EXTENSION TASK:

Create your own artwork inspired by the one you have analysed. This can be made in any medium, must be a minimum of A4 in size and must show a connection to the artwork you analysed. It must be done on another A3 page.

TASK 2: Research & Recreate

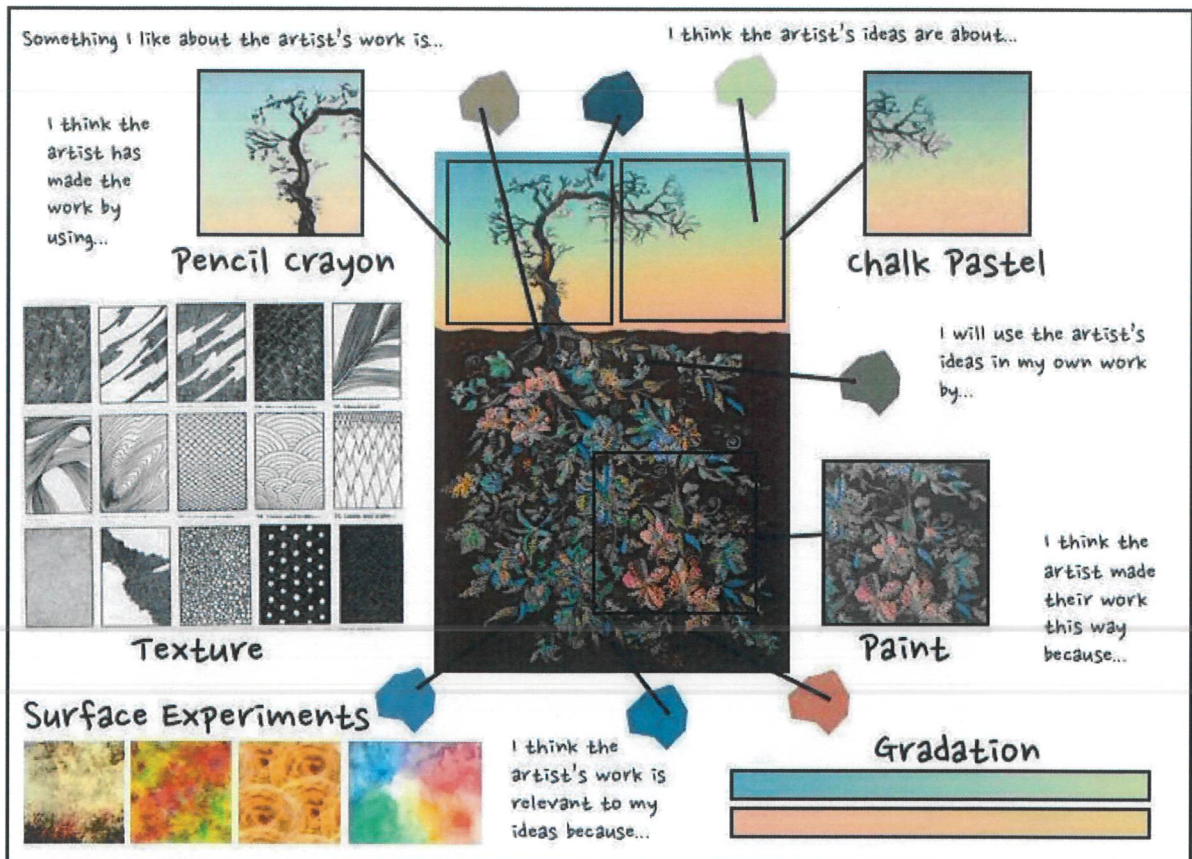
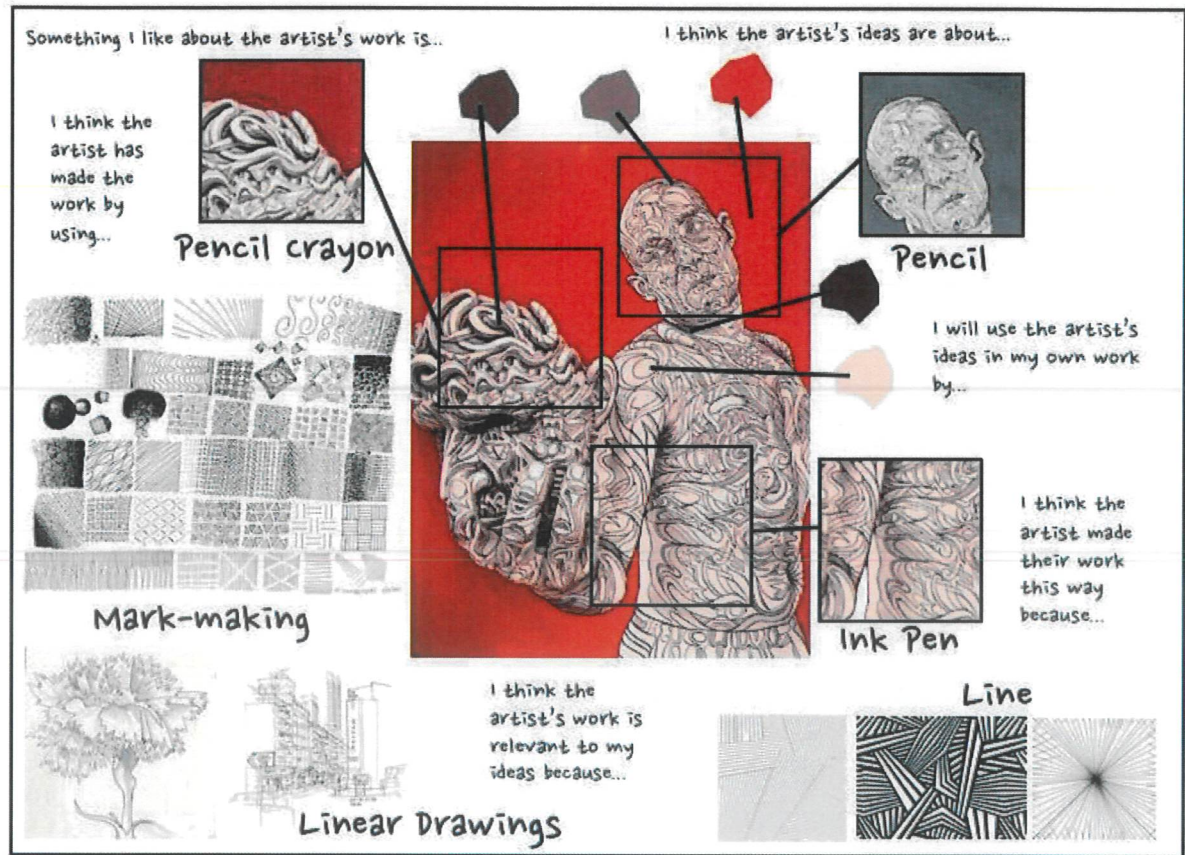
Complete a research and analysis presentation on the artwork. You must use the same format of presentation as you see in the examples on the back of this sheet.

Make sure you....

- Use A3 size paper
- Stick down the copy of your chosen artwork (about A5 size).
- Create 3 drawing/painting studies of different areas in the artwork.
- Include your own written notes about the artwork (use the prompts and sentence starters on the examples).

Deadline: End of the the 1st week back

Here's some examples of what your A3 page might look like...



Get Ready for Child Development

Knowledge Organiser

Year 10-11

OCR Child development

R057 Topic Area 1

5 Preconception health considerations for parents:

- Parental age
- Healthy weight
- Smoking/alcohol/recreational drugs

Mother only:

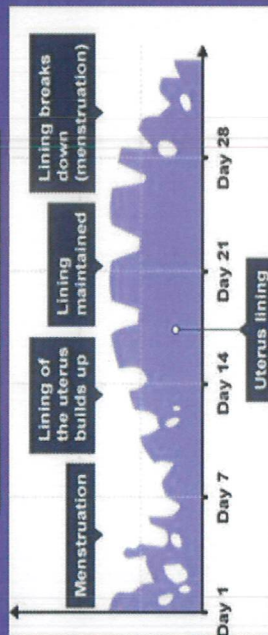
- Folic acid
- Up to date immunisations.

Key Words

Definitions

Ovulation	Mature egg cell (ovum) is released from the ovary
Fertilisation /conception	Sperm penetrates an egg and fuse into one cell.
Implantation	Fertilised egg burrows into lining of uterus
Barrier Method	Contraception methods which prevents live sperm from reaching an egg (ovum).
Hormonal Method	Contraception methods that prevent eggs from being released from the ovaries, thicken cervical mucus to prevent sperm entering the uterus and thins the lining of the uterus to prevent implantation.

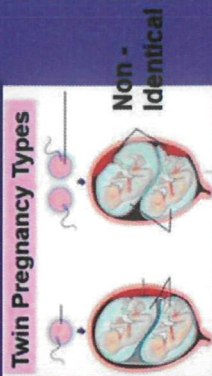
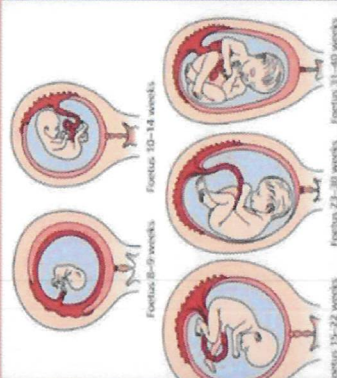
The menstrual cycle



The female reproductive system includes a cycle of events called the menstrual cycle. It lasts about 28 days, but it can be slightly less or more than this.

Development of a baby

1. Blastocyst - Fertilisation to implantation
2. Embryo - implantation to week 8
3. Foetus - Week 8 - birth



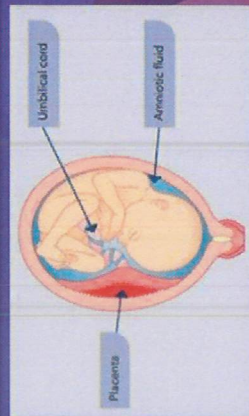
Identical
1 sperm, 1 egg.
Egg splits. 1 placenta

Non - Identical
2 sperm, 2 eggs.
2 placentas

Placenta
Produces hormones, provides nutrients and oxygen, filters waste, separates mother and babies blood

Amniotic Fluid
Protects, maintains temperature, helps muscles development, lubricates to prevent toe/finger webbing.

Umbilical cord
Transfers oxygen, nutrients (to baby) and waste (away from baby)



Signs and symptoms of pregnancy

- Missing Period
- Breast changes
- Passes urine more frequently
- Tiredness
- Nausea

Step up to... Citizenship

Know the political spectrum...



Political ideas are organised on the political spectrum. **1. Retrieve your Year 9 PPE knowledge by learning the parts of the political spectrum and UK political parties.**

Sources of human rights

This will be one of the first things you learn in Year 10. **2. Know the sources of human rights and what they cover.**

UN Declaration of Human Rights

Created by the United Nations in 1948 in the aftermath of the Second World War, it lays out key rights of every person, such as:

- All humans being free and equal
- Right to life
- Equality before the law
- Freedom of expression and opinion
- Right to education

It cannot be forced on governments, but is a useful guide.

European Convention on Human Rights

Created by the Council of Europe in 1950, it is legally enforced by the European Court of Human Rights.

The UK is a member of the Council of Europe, not to be confused with the European Union.

Its rights include the right to life, freedom of speech, the right to privacy, and the abolition of the death penalty.

Human Rights Act

The Human Rights Act was passed by the UK Parliament in 1998.

It made the European Convention on Human Rights a formal part of British law.

This means that the UK has a legal requirement to meet the conditions of the European Convention on Human Rights.

Magna Carta

Magna Carta ('great charter' in Latin) was agreed in 1215 between King John and his rebellious barons.

Most of Magna Carta is now redundant, however three clauses from Magna Carta remain part of English law.

It is significant for establishing the principle of the rule of law and no punishment without a fair trial.

Key Jobs

We will look at the role of government during GCSE Citizenship. **3. Learn these jobs and their responsibilities.**

Monarch – the King/Queen and head of state of the United Kingdom.

Prime Minister – head of government of the United Kingdom.

Chancellor of the Exchequer – government minister responsible for government taxes and spending.

Speaker of the House of Commons – oversees debates in the House of Commons and enforces rules.

Member of Parliament (MP) – one of 650 elected members of the House of Commons.

Peer/Lord – one of over 800 appointed members of the House of Lords.

Step up to GCSE Computer Science

Number Systems

Three Important Number Systems

Denary (base 10)

Ten digits: 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10
Place values are powers of 10 (100s, 10s, 1s)

Binary (base 2)

Two digits: 0 and 1
Place values are powers of 2
(128s, 64s, 32s, 16s, 8s, 4s, 2s, 1s)

Hexadecimal (base 16)

Sixteen digits:
0, 1, 2, 3, 4, 5, 6, 7, 8, 9, A, B, C, D, E, F
Place values are powers of 16 (256s, 16s, 1s)

Denary	Binary	Hex
0	0000	0
1	0001	1
2	0010	2
3	0011	3
4	0100	4
5	0101	5
6	0110	6
7	0111	7

Denary	Binary	Hex
8	1000	8
9	1001	9
10	0010	A
11	1011	B
12	1100	C
13	1101	D
14	1110	E
15	1111	F

Boolean Logic

Logic gates are special circuits built into computer chips.
Logic gates receive **binary data**, apply a Boolean operation, then output a **binary result**

Truth table

Input A	Input B	Output
---------	---------	--------

0	0	0
0	1	0
1	0	0
1	1	1

Input Output (P)



AND

Input A	Input B	Output
---------	---------	--------

0	0	0
0	1	1
1	0	1
1	1	1

Input Output (P)



OR

Input	Output
-------	--------

0	1
1	0

Input Output (P)



NOT

A	B	A AND B	NOT (A AND B)
0	0	0	1
0	1	0	1
1	0	0	1
1	1	1	0

Logic gates can be combined into circuits. For example, AND followed by NOT:



Written as $P = \text{NOT} (A \text{ AND } B)$

Step up to GCSE Computer Science

Summer Tasks

1. Learn the three number systems.
2. Learn the three logic systems and their associated truth tables
3. Learn the definitions for the 17 keywords.
4. Describe why the number systems binary and hexadecimal are used by computer scientists.
5. Describe what a logic gate is and where they are found in a computer?
6. Complete the programming tasks on 'Turing Lab'
[Login Page – Turinglab](#)
(click 'sign in with Microsoft')
Classcode: RXGLAB

Keyword	Definition
High level programming language	This is a computer programming language used to write programs. High-level languages need to be translated into machine code through a compiler, interpreter or assembler.
Low level programming language	This is a computer programming language which closely represents machine language. Low-level languages are more difficult to understand than high-level languages, but they execute quicker.
Translator	Translators are needed to translate programs written in high level languages into the machine code that a computer understands. Tools exist to help programmers develop errorfree code.
Assembler	A program that translates assembly languages into machine code.
Compiler	A program that translates high-level programming languages into machine code.
Interpreter	A program that translates high-level programming languages into machine code. Programs can either be interpreted or compiled.
IDE	A suite of tools that helps a programmer to write error-free, maintainable code.
Editor	The part of an IDE that allows the user to write and amend code.
Error	The process of finding and correcting programming errors.
Diagnostics / debug	
Run time environment	The part of an IDE where a program runs.
Algorithm	A sequence of logical instructions for carrying out a task. In computing, algorithms are needed to design computer programs.
Computational Thinking	A problem-solving method using computer science techniques, where possible solutions are developed and presented in a way that can be understood by humans and computers.
Abstraction	The process of extracting or withdrawing something.
Decomposition	Breaking down a complex problem or system into smaller parts that are more manageable and easier to understand.
Pseudocode	Also written as pseudo-code. A method of writing up a set of instructions for a computer program using plain English. This is a good way of planning a program before coding.
Trace table	Trace tables are used to allow programmers to trace the value of variables as each line of code is executed. The values of the variables are displayed in a table and assist the programmer in identifying any potential errors.
Truth table	A table which shows the possible input and output values for a logic gate

Step up to GCSE...Design

Properties of materials and their characteristics – all materials can be described in terms of their properties. Different materials have different properties.
The properties of a material determine what it's useful for. Thinking about these properties is vital when it comes to designing a new product.

Working Properties

Working properties – how a material will perform and react when it is manipulated/used.

Strength
Strength is the ability of a material to withstand forces without bending or breaking.

Durability
The ability of a material to withstand damage or wear.

Ductility
The ability of a material to deform by bending, twisting or stretching.

Brittleness
When a material cannot absorb energy and will result in the material breaking into pieces

Hardness
The ability of a material to withstand indentation, scratching and wear.

Toughness
The ability of a material to withstand impact without breaking

Stiffness
The ability of a material to hold its shape without breaking

Malleability
The ability of a material to deform without cracking

Physical Properties

Physical properties – something that can be measured, such as weight and size.

Absorbency
The ability to soak up moisture or light. Natural materials tend to be more absorbent.

Density
How solid a material is. The measure of its mass per unit volume.

Fusibility
The ability to be heated and joined to another material when cooled.

Electrical Conductivity
The ability to conduct electricity. Copper is a good conductor of electricity.

Thermal Conductivity
The ability to conduct heat. Steel is a good conductor of heat

Non-metals Vs Metals– Different Properties

Non-Metals

These tend to have a very different set of physical properties to metals.
Compared to metals, they are generally;
More brittle, not always solid at room temperature, poor electrical conductors, dull looking and less dense.

Metals

These tend to have similar basic properties to one another. They are usually;
Strong, Malleable, Good conductors of heat and electricity, not very fusible (high melting and boiling points)

Step up to GCSE...Design

Application of knowledge – now try these questions...

Describe what is meant by the following properties:

Fusibility
Malleable
Ductile

Imagine you are designing a motorcycle jacket. You will want to use a fabric in the design. Suggest a property that the fabric should have to allow it to work correctly.

Metals are used for radiators. Suggest two suitable properties that make metals suitable for this.

Plastics are used for the casing of plugs. Suggest two properties that make plastics suitable for this.

Absorbent materials soak up moisture. State two other properties of absorbent materials.

Give two general physical properties of metals

Give two general physical properties of non-metals

To make metal wire, which property is necessary?

a. Ductility b. Absorbency c. Elasticity

Design and Technology Key Vocabulary

We will use these words a lot. **Learn them and their definitions**

Anthropometrics – Human body measurement data.

Composite – A material made by bonding two or more different materials together.

Corrosion – The gradual destruction of a material as it reacts with a substance.

Ergonomics – A product that is easy and comfortable for people to use.

Finite resource – A resource that will eventually run out.

Iterative design – A design strategy that involves constantly evaluating and improving a product's design.

Market Pull – When a product is made due to consumer demand.

Non-finite resource – A resource that can be replaced and is renewable.

Natural – made by nature

Obsolescence – When a product becomes useless.

Prototype – A full sized and functioning product or system built before production takes place.

Standard components – Common fixings or parts that manufacturers buy instead of making themselves.

Sustainable – A sustainable process or material is one that can be used without causing permanent damage to the environment or using up finite resources.

Synthetic – A human-made material.

Technology Push – When advances in technology drive the design of new products and the re-design of old ones

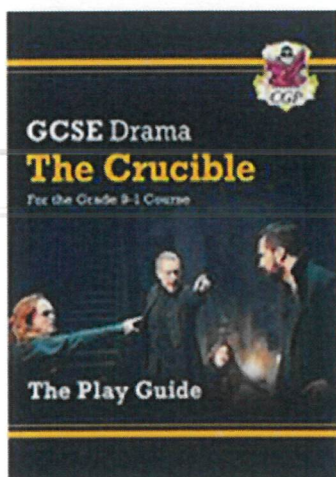
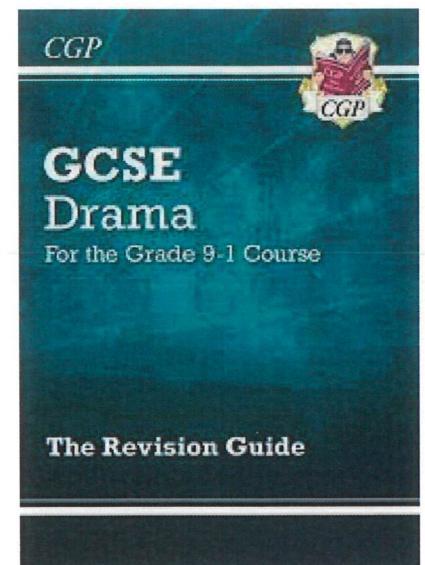
Step up to GCSE...Drama

First of all, we would like to commend your courage and sense of adventure in deciding to undertake Drama at GCSE which, inherently, presents a range of unique challenges – some of which, in fact, may be totally new to you! However, if you feel nervous about taking on these new challenges, please don't hesitate to get in touch with Miss Hardman about the course and what to expect.



As you may be aware, as part of the course, you'll be studying a set text, working towards the written examination component. In order to hit the ground running with your studies for this component, we ask that you purchase a copy of the play 'The Crucible' by Arthur Miller in advance of your return to College. For the sake of navigating the text together easily, please aim to get a copy of the Bloomsbury version – pictured on the right. If for whatever reason you are unable to purchase a copy yourself, please let me know and I will sort you out with one.

You may also wish to purchase a revision guide to support your learning and exam preparation over the next two years. I highly recommend the CGP guide titled '**GCSE Drama: For the Grade 9-1 Course**', pictured on the right. This guide is designed to cover everything you need to know about performance as well as the exams. An additional guide you may wish to equip yourself with is the CGP guide titled 'GCSE Drama: The Crucible. The play guide.' This guide walks you through our set text step by step, so is especially helpful for students who may struggle to remember information about plot and characters when studying a text, such as in English.



In addition to this, we ask that you ensure that you wear comfortable footwear and trousers/skirts for our practical sessions, which can involve lots of movement. Shoes which slip off easily or skirts which are too short will stop you from fully engaging with physical exercises so please keep this in mind (alongside our recently relaunched uniform rules) if you plan to update your uniform for next year.

Step up to GCSE...Drama

With regards to getting ready to dive into the world of theatre and performance, you could prepare by sinking your teeth into some texts or watching some performance over the summer! With a creative subject like Drama, you'll find that independent reading and research will help to boost your understanding and feed your creativity in lessons. Please find a suggested reading/watching list enclosed. There are many recordings of live performances to be found on YouTube, so dig in!

Whatever your level of existing knowledge, we look forward to you getting to grips with the basics of Drama over the course of the Autumn Term, developing our confidence, and nurturing our newly founded Drama family! We can't wait to welcome you to what will be a very exciting and fulfilling two years of dramatic experimentation and creative exploration.

Suggested Reading/Watching List:

Revision guides:

'The Crucible' by Arthur Miller

CGP's 'GCSE Drama: For the Grade 9-1 Course.'

CGP's 'GCSE Drama: The Crucible. For the Grade 9-1 Course.'

BBC Bitesize's section for Edexcel GCSE Drama online

Play texts (can sometimes be found for free online. Alternatively, recorded performance can be found on YouTube!):

Arthur Miller's 'A View From the Bridge'

Arthur Miller's 'Death of a Salesman' (Content includes references to adultery and suicide)

John Godber's 'Teechers'

John Godber's 'Bouncers'

Simon Stephen's 'The Curious Incident of the Dog in the Nighttime'

Willy Russel's 'Blood Brothers'

Things to watch:

Type 'GCSE Performance' into YouTube for some real GCSE performances!

Type 'The Crucible, full performance' into YouTube and watch a performed version of our set text, reading for working on it in lessons

Prepare for ... Food Preparation and Nutrition

Carbohydrates

Sources Sugars,

Monosaccharides, such as fruit and vegetables. Disaccharides such as cereals and polysaccharides such as rice, oats and potatoes.

Functions to give the body energy. to help the body to get rid of waste.

Deficiency Lack of energy, weakness and loss of weight.

Excess If the body has more than it needs it will be converted into fat and stored in the body.

Fats and Oils

Sources Solid animal fat- cheese butter met products processed meals

Solid plant fats Vegetable fat spreads, coconut cream, cocoa butter. Processed foods, pastries, chocolate, biscuits.

Liquid Animal Fats- cod liver oil oily fish.

Liquid plant oils- nut and seeds oil such as sunflower oil, sesame oil, olive oil, almond oil

Functions Provide a store of energy. Insulate the body. Protect bones and kidneys from damage by cushioning. To give the body fat soluble vitamins.

Deficiency Body weight will be lost. Body will chill quickly, the body will bruise easily. The body will not receive enough vitamin ADEK.

Excess If the energy dense foods from fats are not used in physical activity it will be stored in the body under the skin in tissue and around the intestines- consequently causing weight gain.

Protein

Sources High Biological Value- Meat Eggs Dairy Poultry Fish Soya Beans, Quinoa

Low Biological Value Lentils Peas Beans Cereals Wheat Rice Oats Nuts Seeds

Functions To make the body grow. To repair the body. To give the body energy. Hormones, enzymes and antibodies are also made from proteins

Deficiency Children may not grow properly or reach their full height. People may lose some of their hair. Skin and nails will be in poor condition. Easily develop infections. Not be able to digest food properly

Excess The liver and kidneys work harder to get rid of the nitrogen found in proteins, this puts them under too much stress.

Knowing your commodities



Step up to GCSE French



Key Question Words	
French	English
où ...?	where ?
quand...?	when...?
pourquoi...?	why?
qui...?	who?
avec qui...?	with whom?
combien (de)...?	how many? / how much?
comment...?	how?
quel(le)(s)...?	which?
que/qu'est-ce que...?	what?

Time phrases	
French	English
avant	now
dans le passé	in the past
hier	yesterday
l'année dernière	last year
maintenant	now
tous les jours	every day
souvent	often
parfois / quelquefois	sometimes
d'habitude	usually
en général	generally
normalement	normally
jamais	never
rarement	rarely
le weekend	at the weekend
demain	tomorrow
à l'avenir	in the future
l'année prochaine	next year

Connectives and prepositions	
French	English
et	and
aussi	also / as well / too
ou	or
mais	but
cependant	however
par contre	on the other hand
alors	so / then
donc	therefore / so
avec	with
car / parce que	because
puisque	since
comme	as / like
avant	before
après	after
ensuite / puis	then

Key Verbs	
French	English
être	to be
avoir	to have
aller	to go
faire	to do
il y a	there is / there are
regarder	to watch
écouter	to listen
jouer	to play
manger	to eat
boire	to drink

Intensifiers	
French	English
pas du tout	not at all
un peu	a bit
assez	quite
vraiment	really
beaucoup	a lot
très	very

Opinion Phrases	
French	English
j'aime	I like
j'adore	I love
je n'aime pas	I don't like
je préfère	I prefer
je déteste	I hate
je veux	I want
je voudrais	I would like

Adjectives	
French	English
bien / bon(ne)	good
mal / mauvais(e)	bad
ennuyeux(euse)	boring
génial(e)	great
nul(le)	rubbish
passionnant(e)	exciting
différent(e)	different
difficile	difficult
facile	easy
intéressant(e)	interesting
petit(e)	small
grand(e)	big
jeune	young
vieux (vieille)	old



Step up to GCSE French



Past perfect			
The past perfect tense is used to describe something that happened at a precise point in the past (eg last week, yesterday, 2 hours ago). There are 3 lots of endings depending on whether the verb's infinitive ends in -er, -ir or -re. Regular verbs in the past perfect follow the following pattern. Step 1. choose the pronoun of the sentence Step 2. conjugate the avoir auxiliary in the right form Step 3. remove your infinitive ending (er, ir or re) and then add the correct ending to the past participle. Eg. J'ai joué = I played Eg. Il a vendu = he sold			
Steps 1+2	Step 3		
J'ai - I have	Remove ER	Remove IR	Remove RE
Tu as - you have			
Il a - he has	Add é	Add i	Add u
Elle a - she has			
Nous avons - we have	Eg. joué	Eg. fini	Eg. vendu

Present	
The present tense is used to describe what you are doing now. There are 3 lots of endings depending on whether the verb's infinitive ends in -er, -ir or -re. Most French verbs are -er verbs. Their pattern in the present tense is as follows. Step 1. choose the pronoun of the sentence Step 2. remove your infinitive ending -er and then add the correct present tense ending based on who you are talking about. Eg. Je joue = I play / I am playing Eg. Nous écoutons = we listen / we are listening	
Step 1	Step 2
Je/'j' - I	Remove ER Add e Eg. Je joue
Tu - you(sing)	Remove ER Add es Eg. Tu manges
Il/elle - he/she	Remove ER Add e Eg. Il écoute
Nous - we	Remove ER Add ons Eg. regardons

Near Future			
The immediate future tense is used to describe something that is going to happen. To form the immediate future tense you need follow the following steps. Step 1. choose the pronoun of the sentence Step 2. choose the correct form of the verb aller (to go) Step 3. Then, add an infinitive (form of the verb that ends in -er, -ir or -re) Eg. Je vais aller = I am going to go Elle va écouter = she is going to listen			
Step 1	Step 2	Step 3	
Je/'j' - I	vais	regarder aller	
Tu - you(sing)	vas	regarder écouter	
Il/elle - he/she	va	...	
Nous - we	allons		

Step Up to... Geography

Topic 2: Development Dynamics

Development in Geography is a term used to describe a country's standard of living and quality of life

1. Learn the terms for a country's level of development, be able to describe each and name which country you will focus on for each.

Developing Country:

one with a low standard of living and a poor quality of life. People typically live in rural areas and rely on agriculture (short case study on Malawi)

Emerging Country:

one where the economy has started to grow (usually from industrialisation), and some people have a higher standard of living, but it remains unchanged for many (case study on India).

Developing Country:

one with a high standard of living and a good quality of life. More people live in urban areas and most jobs are tertiary (provide a service). (Use the UK as an example)

Development Indicators

Social Indicators:

('social' means it affects people)

Literacy Rate: % of adults who can read and write (higher % shows most people go to school, showing a higher standard of living, as they can access education)

Life Expectancy: the average age people live to (higher ages shows a higher standard of living, as they can access healthcare and food)

Fertility Rate: average number of children born to a woman (higher number linked to less access to healthcare, education and family planning)

These are used to measure the level of development. It is better to use a range of indicators to give a better overview of a country
2. Learn these terms and definitions

Economic Indicators:

('economic' means it involves jobs/money)

GDP per capita: (Gross Domestic Product) shows the value (in US\$) of the goods and services of a country, divided by the population to make it easier for comparisons (higher value shows there are high skilled workers to produce these goods and service, linking back to education)

Causes of Global Inequality

Economic and Political – systems of governance, international relations

Social – education, health

Environment – climate, topography

Historical – colonialism, neo-colonialism

Being a good geographer:

Geography is all about the world around you, so pay attention to what you see, whether you are walking in the Peak District, going on the bus to Derby or flying off somewhere, think about what it is like and work out, why is it like this here?

We will look at why the level of development varies between countries.

3. Learn these four causes of global inequality and be ready to suggest why/how each could affect a country's development. (A good way to do this is to think about the UK and how each of these has helped this country to be developed.)

Getting ready for... **Graphic Design**

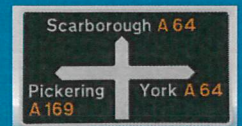
Infographics – The work of **Margaret Calvert**

Throughout the course you will be required to carry out studies of different Graphic Designers and Artists. This will include researching into their lives, styles of work and examples of their work as well as producing work of your own inspired by their work.

Over the summer I would like you to use the information below and any of your own research to present an A3 designer study of **Margaret Calvert**. Every day you will see her work when you are out and about.

What you need to include in your artist study:

- Biography of the designer, life and education
- Description of their work, style and show examples
- Your own opinions of their work whether it is positive or negative but try and be balanced
- Your own hand drawn and possibly computer generated versions of some of their pieces. Add colour and analysis



Margaret Vivienne Calvert^[1] OBE (born 1936) is a British typographer and graphic designer who, with colleague Jock Kinneir, designed many of the road signs used throughout the United Kingdom, Crown Dependencies, and British Overseas Territories, as well as the Transport font used on road signs, the Rail Alphabet font used on the British railway system, and an early version of the signs used in airports. Many countries have also adopted her style for their road signs due to their simplicity

Early life and education

Born in South Africa, Calvert moved to England in 1950, where she studied at St Paul's Girls' School and the Chelsea College of Art. Kinneir, her tutor there, asked her to help him design the signs for Gatwick Airport. They chose the black on yellow scheme for the signs after researching the most effective combination.^[3] They also designed luggage labels for P & O Lines in 1957



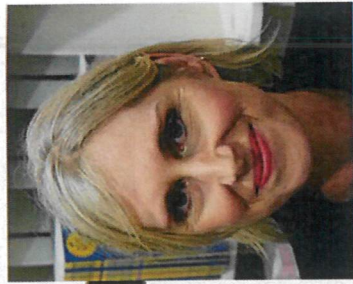
Most notable work

In 1957, Kinneir was appointed head of British signs for Britain's roads. He then hired Calvert^[6] to redesign the road sign system and she came up with simple, easy-to-understand pictograms, including the signs for 'men at work' (a man digging), 'farm animals' (based on a cow named Patience that lived on a farm near to where she grew up), and 'schoolchildren nearby' (a girl leading a boy by the hand, which she said were actually modelled after herself), using the European protocol of triangular signs for warnings and circles for mandatory restrictions. In addition to her road signs, Calvert has designed commercial fonts for Calvert taught at the Royal College of Art for almost 40 years and was head of graphics from 1987 to 1991.

When presenting your artist studies try and develop your own style and colour scheme but make it clear to understand. You should look to fill the A3 page with good quality information, images and your own attempts at their work. When we return in August we will be creating our own Margaret Calvert inspired signage.



Lauren Child

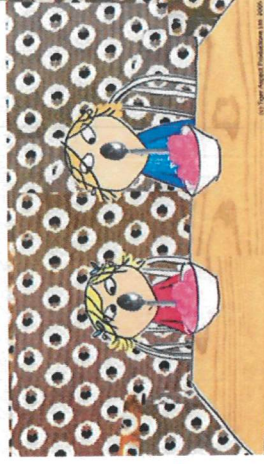


- Born in 1965 in Berkshire
- Father was an Art teacher at Marlborough College, Mum was a primary school teacher.
- Attended Manchester Polytechnic briefly before moving to study at the London Art School.
- Went into writing and illustrating her own work.
- First published works were 'I Want A Pet' and 'Clance Bean, That's Me!' in 1999
- Most famous work is her Charlie and Lola stories which has since been adapted for TV.
- Won the Kate Greenaway medal for her first Charlie and Lola book titled 'I will not ever, NEVER eat a tomato' in 2000
- Other notable works; The Ruby Redfort series

Methodology

Child uses mixed media to produce her final pieces. She often uses magazine cuttings, photographs, collage as well as her own drawings and traditional watercolour. Childs work does comes across as quite naïve but the layering method she uses is quite technical and complicated. She often makes it look very obvious they she has created the work in a collage style.

Her drawings are very simplistic in style and are easy to replicate and alter subtly to show different emotions or expressions.

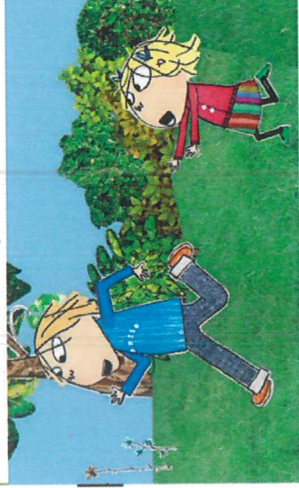


My first attempt



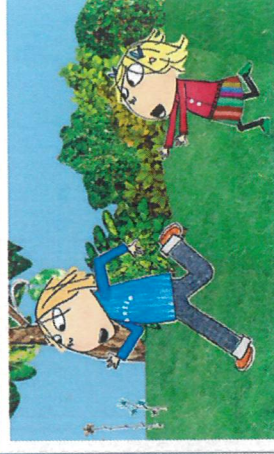
This is my attempt at reproducing a piece of Lauren Childs' work. I found the drawing quite easy as it is a very simple way of drawing people. However, I couldn't use pencil crayon so the colours are not as bright. I could have also used her method of using pictures for textures, details and backgrounds rather than just drawing them myself.

Charlie and Lola - analysis



This piece shows the variety of media used by Child in her work. The background is made up of a block blue and then cut out images have been then layered over the top. This gives the image a sense of realism because it uses real grass and leaf pictures. The random layering shows an element of perspective. The tree trunk has been hand drawn but the leaves added. The main characters are hand drawn but you can see the faces are very similar. This is done to show that they are brother and sister but also means the technique is easy to replicate for both characters. The use of pattern in the clothing gives a sense of texture to materials such as Charlie's trousers or Lola's cardigan. Child has then added little details such as the small plants at the back. Both the main characters and the plants have been hand drawn, but then cut out and layered over the top of the background.

Charlie and Lola - analysis

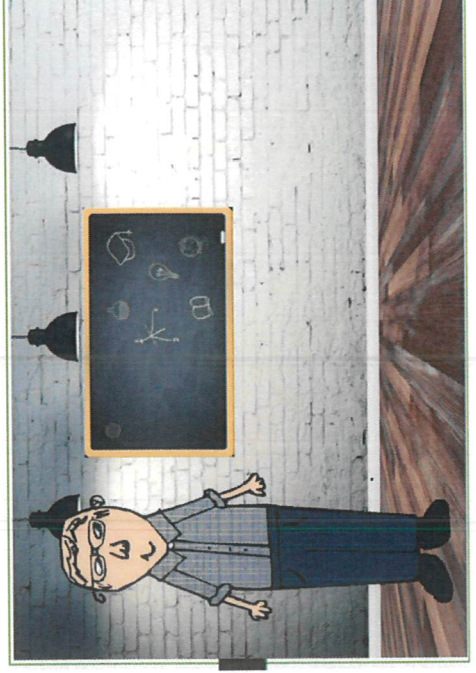


My reaction to the piece.
I like the way this piece creates the feeling of fun and movement. Child has used facial expression to show happiness. The position of Lola's eyes demonstrates a look of admiration.
The use of real photographs as a collage is clever as it does make the scene feel more realistic.

I like the way that Child has layered up the images to build up the whole scene rather than produce it all together.

The way Child has added colour to the characters is clever in a very simple way. She makes her work look like the actual target reader could be able to draw the characters. The colour added to Charlie's top is very similar to the way a child would colour in a drawing and you can see the pencil crayon strokes.

I do feel the blue sky could be a different tone or include other features such as clouds or birds.



My example.
I have created a Lauren Child style image. I drew out a simple version of my character then scanned it in. I used Tealsoft 2D Design tools to add texture/pattern to the shirt and the trousers and skin tone to the face and arms.
I then created a class room background by overlaying the wall, floor and blackboard as separate images.

I think this works quite well but would want to add in other school furniture, wall pictures and children to complete the final image.

Step up to GCSE...History

Knowing your time periods

600-1066 Anglo-Saxon Period	1066-1100 Norman Period	1100-1500 Medieval Period	1500-1700 Early Modern Period	1700-1900 18th and 19th Centuries	1900-Current Modern Period
Questions on the Crime and Punishment paper will require you to know your time periods and their names. You can also see which period the other 3 units fall into. 1. Learn these dates and names			Elizabethan England	British America	Weimar & Nazi Germany

Important Kings and Queens

Monarchs are a major reason for change in the past. **2. Learn the dates when these monarchs reigned and a reason why each is important.**

William I

1066-1087

William brought **Anglo-Saxon England to an end**. He made many **new laws** and customs. He gave the **Church important rights**.

Henry II

1154-1189

Henry II is known for his part in the **death of Thomas Becket**. But he also made major changes to **English law and the legal system**.

Richard I

1189-1199

Richard spent **little time in England** as he was on **crusade**. But he did bring **order to rebellious areas**.

John

1199-1216

John was a **tyrant**. The Barons made him sign **Magna Carta** to give them basic rights in law.

Edward III

1327-1377

Edward made some important **legal changes**. He was also King **during the Black Death**.

Henry VIII

1509-1547

Henry made **important changes to the Church**. This was after the Pope did not annul his marriage to **Catherine of Aragon**. He then went on to have his second wife, **Anne Boleyn**, **executed** for adultery before marrying four others.

Mary I

1553-1558

The **first Queen**. She tried to make England **Catholic again** and had **280 Protestants** executed as a result.

Elizabeth I

1558-1603

Daughter of **Henry VIII and Anne Boleyn**. She tried to **solve the religious problems** in England. This eventually led to the **Spanish Armada** trying to invade. Her reign is remembered as a **golden age of entertainment and discovery**.

James I

1714-1727

First monarch to have (effectively) a **Prime Minister**, King at the start of the **British America unit**.

George III

1760-1820

King during the **American War of Independence**. Known for bouts of **mental illness**.

Key Terms

We will use these words a lot. **3. Learn them and their definitions**

Consequence – The result of an event
Contemporary – Means 'from that time'
Economic – Related to money
Political – Related to power
Social – Related to people and society
Source – A piece of historical evidence

Clergy – Someone ordained to work in the Church
Democracy – System where people vote for a government
Communism – Where the community own farms and factories
Fascism – System with a strong ruler and military and no votes
Socialism – Government run in the interests of workers
Interpretation – A historian's view of an event

Step up to Media GCSE

TASK: Research, plan and create a new media product. Choose ONE of the options below.

1. Design a print advertisement for a new sports shoe aimed at 12-17 year olds.
2. Design a film poster for a new action film aimed at audiences 15+.
3. Design the front cover of a lifestyle magazine aimed at 17-24 year olds.
4. Design the front cover of a UK newspaper aimed at an adult audience.

Step 1- Research

- Look at the example products for your chosen task (adverts, film posters, magazines, or newspapers)
- Identify common features of the products to replicate in your own design including the layout, colours and types of images used.
- Use the internet to research other examples and the features that they use to engage their audience.
- Consider what features/language/images etc. might appeal to your target audience.

Print Advertising

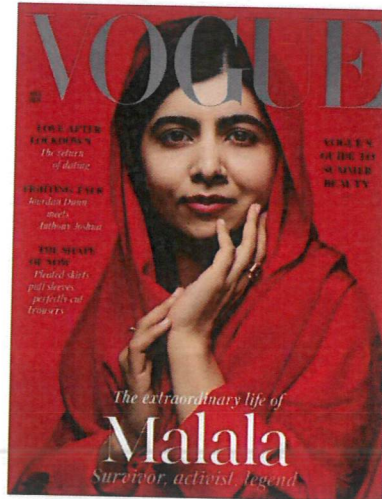


Film Marketing Posters



Step up to Media GCSE

Magazine Front Covers



Newspaper Front Covers

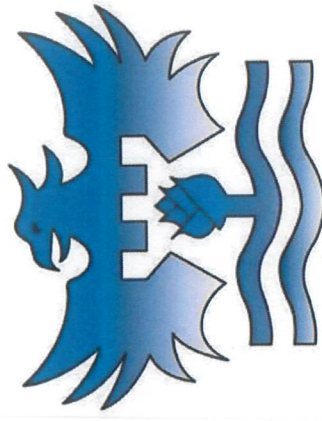


Step 2 – Design a first draft

- Draw (by hand or using the computer) a layout using your research to help you plan.
- Map out and label where different things will go.
- Decide on the colours, images and language you will include and why.

Step 3 – Create Your Final Product

- You can hand draw or use powerpoint/publisher or other software if available to you.
- You can use your own images or suitable images from the internet.
- You can find fonts on www.fontspace.com
- You can create graphics using powerpoint or www.canva.com



GCSE MUSIC PERFORMANCE

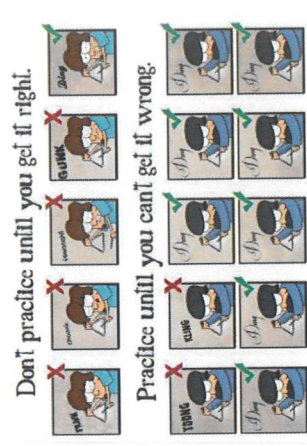
Practice Diary

Name: _____

Complete this diary every time you practice (which should be EVERYDAY!)

DAILY RECOMMENDED PRACTICE FOR GCSE - 1 HOUR!

AS PART OF THE GCSE COURSE – YOU WILL HAVE AN ASSESSED PERFORMANCE ON YOUR CHOSEN INSTRUMENT/VOICE WITHIN THE FIRST TWO WEEKS IN SEPTEMBER!



Principles of training		
Principles (SPOR)	Explanation	Application
1. Specificity	Activity must match the requirements of the activity so that the right muscles and body systems are worked.	If you have a Football athlete, you could include sprint drills to improve the players speed which is crucial in a match.
2. Progression	The process of developing or moving gradually towards a more advanced state.	Gradually increase the intensity of your training (Eg: Training from 60% of MHR to 65% of MHR).
3. Overload	The body must work harder than normal so there is some stress and discomfort.	Weightlifter will be able to increase the weight they can lift over time (Eg: From 15kg to 20kg)
4. Reversibility	Adaptation occurs as a result of training being stopped which decreases level of performance.	Your strength decreases, you become less aerobically fit, and your flexibility decreases, etc.

Step up to GCSE PE

Components of fitness	Definitions
11. Cardiovascular endurance	To be able to continuously exercise for a long period of time without tiring
12. Muscular endurance	The ability to use the voluntary muscles many times without tiring
13. Muscular strength	The amount of force a muscle can exert against a resistance
14. Flexibility	The range of movement at a joint
15. Agility	The ability to change direction at speed
16. Balance	The ability to retain centre of mass of the body above the base of support
17. Co-ordination	The ability to use two or more body parts at the same time
18. Power	The ability to do strength performances quickly (strength x speed)
19. Reaction	The time taken to initiate a response to a stimulus
20. Speed	The maximal rate in which an individual is able to perform a movement in the shortest period of time

METHODS OF TRAINING					
5. Continuous Training	6. Fartlek Training	7. Circuit Training	8. Interval Training	9. Plyometric Training	10. Weight Training
Training that involves working at a constant rate for an extended period of time (20+ minutes).	A training method involving working at different speeds on a variety of terrains.	A series of exercises completed one after another. Usually 6-10 different stations that focus on different muscle groups.	Periods of exercising hard, combined with periods of rest or low intensity exercise.	A training method that involves a lot of jumping, bounding and hopping. A very explosive method of training that focuses on developing power.	Training that involves the use of weights to either develop muscular endurance or muscular strength
Advantages	Advantages	Advantages	Advantages	Advantages	Advantages
No equipment required	No equipment required	Adjustable for many fitness components, parts of the body or muscle groups	Quick training activity	Well suited to rapid developments in power.	Can be altered to develop both strength and muscle endurance
Disadvantages	Disadvantages	Disadvantages	Disadvantages	Disadvantages	Disadvantages
Can get boring and repetitive	Injuries can occur if not done properly	Timely to set up all the stations	Not suitable for everyone. Higher risk of injury.	Risk of injury	Requires bulky and specialised equipment
Sports	Sports	Sports	Sports	Sports	Sports
Marathon running Cycling Football Netball	Football Rugby Handball	Can be adapted for all sports Boxing Gymnastics	Running Swimming Cycling	Basketball Badminton Volleyball Tennis	Bodybuilding Shot putt Javelin

SHOW – Create FLASH CARDS for all 20 key words/definitions.

KNOW – LEARN ALL 20 definitions for a quiz in your 1st Paper 1 GCSE PE lesson.

Step up to GCSE PE

KEY TERM	Definitions
1. Skill	<u>A learned action/behaviour with the intention of bringing about a predetermined result.</u>
2. Ability	<u>Inherited from your parents, abilities are stable traits that determine an individual's potential to learn or acquire skills</u>
3. Open skills	<u>A skill which is performed in a <u>changing, unstable, unpredictable</u> environment. EG passing in football</u>
4. Closed Skills	<u>A skill which is performed in a <u>stable, consistent and predictable</u> environment which stays the same all the time. EG LONG JUMP</u>
5. Basic skills	<u>A simple skill that is easy to perform and needs little planning or decision making. EG running in a marathon</u>
6. Complex skills	<u>A difficult skill to perform, requires lots of decisions to be made. Skill may be learnt in phases. Lots of practice needed. EG LAY UP IN BASKETBALL</u>
7. Self-paced skills	<u>The skill is started when the performer decides to start it. The time/speed of the skills is decided by the performer. EG HIGH JUMP in ATHLETICS.</u>
8. Externally paced skills	<u>The start of the skill is determined by an external factor/person. EG <u>receiving a serve</u> in TENNIS or EG <u>marking a player</u> in netball</u>
9. Gross skills	<u>Involves BIG movements using lots of muscles to complete it. EG a TACKLE in rugby</u>
10. Fine skills	<u>Involves small actions using precise/ accurate movements and small muscles. EG PUT IN GOLF, ARCHERY</u>
11. GOAL SETTING	<u>To improve and to provide motivation, performers and coaches set themselves TARGETS which should be SMART. EG improve my 100m time by 0.3s in 6 weeks, this has been accepted by my coach.</u>
12. Specific	<u>Specific to the demands of the sport, muscles used, and movements involved.</u>
13. Measurable	<u>It must be possible to measure whether it has been achieved or not. EG scoring 20 goals this season.</u>
14. Accepted	<u>It must be agreed/accepted by the performer and coach (if they have one)</u>
15. Realistic	<u>It must be possible to compete the goal/target – if unrealistic then the performer would become demotivated.</u>
16. Time bound	<u>It must be set over a fixed period of time so the performer/coach can plan a programme to determine if improvements have been made.</u>

SHOW – Create FLASH CARDS for all 16 key words/definitions.

KNOW – LEARN ALL 16 definitions for a quiz in your 1st Paper 2 GCSE PE lesson.



Step up to GCSE Spanish

Key Question Words	
Spanish	English
¿Dónde?	Where?
¿Cuándo?	When?
¿Por qué?	Why?
¿Con quién?	With whom?
¿Quién?	Who?
¿Cuánto/cuántos?	How many? / How much?
¿Cómo?	How?
¿Cuál(es)?	Which?
¿Qué?	What?

Connectives	
Spanish	English
y	and
para que	so that/in order that
como	like/as
o	or
pero	but
porque	because
ya que	given that
así que	so that
puesto que	since
mientras	while/whilst
aunque	although
también	also/too/as well
entonces	then/so
además	also/as well/ besides
dado que	given that

Time phrases	
Spanish	English
Ahora	Now
Hoy	Today/todaydays
Por la noche	In the evening
Normalmente	Normally
Generalmente	Generally
Usualmente	Usually
De vez en cuando	From time to time
A veces	Sometimes
El año pasado	Last year
Ayer	Yesterday
Anteayer	The day before yesterday
El año que viene	Next year
El año próximo	Next year
Mañana	Tomorrow
Por la mañana	In the morning

Key Verbs	
Spanish	English
Ser	To be
Estar	To be
Ir	To go
Hay	There is/are
Tener	To have
Hacer	To do
Ver	To watch



Opinion Phrases	
Spanish	English
Me gusta(n)	I like
Me encanta(n)	I love
Me mola(n)	I love
Me chifla(n)	I love
Me gusta(n) mucho	I really like
No me gusta(n) nada	I don't like at all
No me gusta(n)	I don't like
Odio	I hate
Detesto	I hate
Quiero	I want
Me fascina(n)	Fascinates me
Me molesta(n)	Annoys me
Prefiero	I prefer

Adjectives	
Spanish	English
Bueno	Good
Importante	Important
Diferente	Different
Difficil	Difficult
Fácil	Easy
Interesante	Interesting
Serio/grave	Serious
Trabajador	Hardworking
Raro	Strange/rare
Sencillo	Simple/easy
Agradable	Pleasant/nice
Divertido	Fun/enjoyable
Aburrido	Boring



Step up to GCSE Spanish

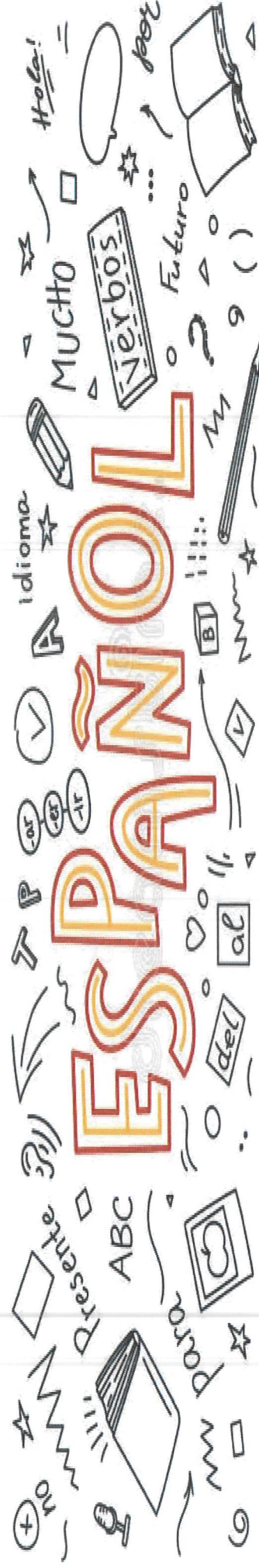


Grammar

Preterite			
The preterite tense is used to describe something that has happened in the past . Regular verbs in the present tense follow the below pattern; remove your ending (ar, er or ir) and then add the following based on who you are talking about.			
I (yo)	<u>AR</u> é	<u>ER</u> í	<u>IR</u> í
You (tú)	aste	iste	iste
He/she (Él/ella)	ó	ó	ó
We (nosotros)	amos	imos	imos
You pl (vosotros)	asteis	isteis	isteis

Present			
The present tense is used to describe what you are doing now . Regular verbs in the present tense follow the below pattern; remove your ending (ar, er or ir) and then add the following based on who you are talking about.			
I (yo)	<u>AR</u> o	<u>ER</u> o	<u>IR</u> o
You (tú)	as	es	es
He/she (Él/ella)	a	e	e
We (nosotros)	amos	emos	imos
You pl (vosotros)	áis	éis	ís

Immediate Future		
The immediate future tense is used to describe something that is going to happen. To form the immediate future tense you need to choose the correct form of the verb ir (to go → <i>not to be confused with the IR ending</i>), followed by a, then the infinitive of the verb.		
IR (to go)		a
I am going	voy	
You are going	vas	
He/she is going	va	
We are going	vamos	
You all are going	vais	
		Infinitive comer beber tener hablar vivir visitar



Getting ready for...**Textiles**

Summer work to kick start your first project...

Over the summer you will complete your initial research to start your first GCSE project: **Under the sea**

Pages to complete:

1) Title Page

On 1 A3 piece of paper, create a title page for the project. Consider typography, and imagery to set the mood for your project.

2) Mind Map

Over 2 A3 pages create a Visual mind map. This needs to include a vast range of potential ideas this project could include.

Consider the design of this page and include some small drawings to enhance descriptions.

3) Mood Board

Over 2 A3 pages create a mood board (if you do not have a printer, please email a selection of images to me that we can print out first lesson back.)

Your mood board should be more selective than your mind map, and should show the direction of your project.

A great mood board also includes drawings and key words!

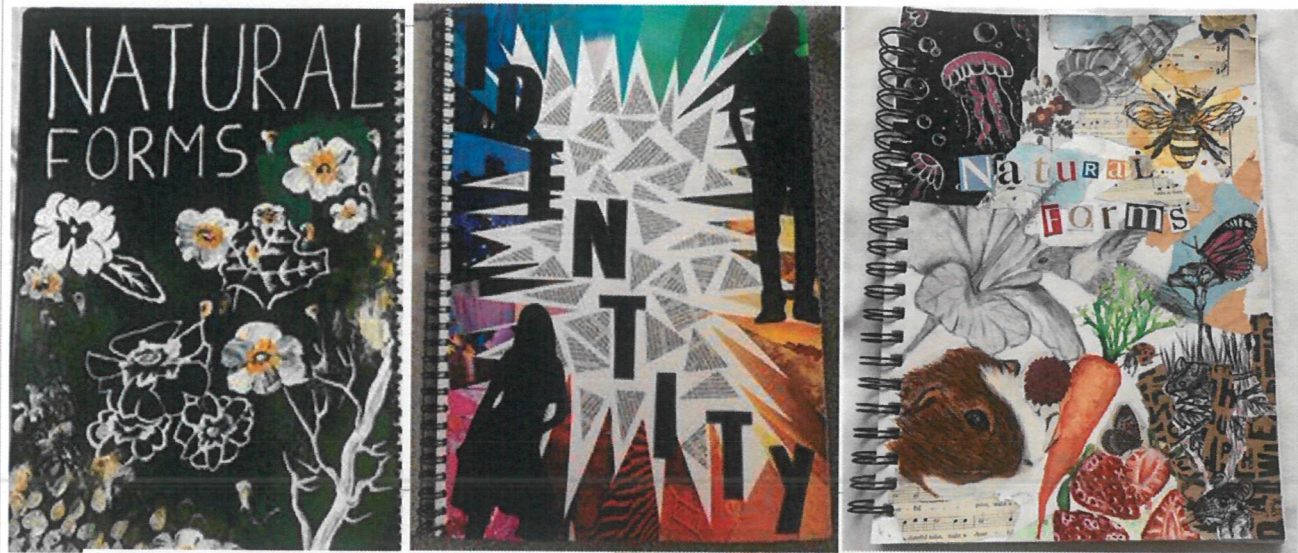
4) (Optional) Drawings

If you want to complete more work, drawings from your mood board is a great way to start to interact with your project, to find imagery that you want to move forward with.

Try using different media, scale, and backgrounds.

Look on the next page for examples!

Title page



Mind Map



Moodboard

