CLEETHORPES ACADEMY HOME LEARNING

Year 9

Autumn Term 1

NAME:_____

FORM:_____

We Are ***CARING*** We Are ***CURIOUS*** We Are ***CREATIVE***

SELF QUIZZING

OUR EXPECTATIONS

- The act of self-quizzing supports retrieval. Retrieval is important because the more we revisit knowledge and ideas, the more likely we are to remember it. The more we remember, the greater sense we can make of our learning.
- You should spend a minimum of *30 minutes a night* focusing on a specific subject's retrieval activity.
- You should use the homework log to monitor your completion week on week.
- You should bring your completed work to form, every Tuesday, where your work will be checked and additional retrieval activities will be completed to support your retention of the information studied at home.
- Failure to complete the activities each week, will result in further sanctions.

WHAT YOU SHOULD DO

- Each night, select a subject to focus on.
- Read the subject's information really trying hard to remember what you have read. You might want to highlight and add your own notes to the information you have been given.
- Once you are confident that you can recall the information without having to recheck, use your home learning exercise book to write down everything you can remember, using a black or blue pen. Don't worry if you can't remember everything
- In form time, your tutor will ask you to check through your work and use a green pen to "gap fill" any information you may have missed.
- Your tutor will also ask further questions in relation to the information you have read each week, to further support your retention of new knowledge.
- You will be rewarded with carrot points for your efforts each week.

Home Learning Monitoring

Subject	*w/c 8th Sept*	*w/c 15th Sept*	*w/c 22nd Sept*	*w/c 29th Sept*	*w/c 6th Oct*	*w/c 13th Oct*
English Literature						
English Language						
Mathematics						
Biology						
Chemistry						
Physics						
History						
Geography						
Spanish						
Art						
Music						
Personal Development						

WEEK 1

English Literature

You have been introduced to a new unit and text called 'Words in Motion.' Below is information about Journey's End's playwright, R.C. Sherriff, as well as information about The First World War – the conflict which is featured in the text.

Author Robert Cedric Sherriff lived in Esher - a town in Surrey near London- for most of his life. Sherriff wrote several plays, but none were as successful as 'Journey's End', which was often considered his 'magnum opus' (best work.) Sherriff never married, living with his mother until her death in 1965. He died in 1975. Sherriff was one of the 5 million British men who served during the First World War. His experiences led him to write his first and most spectacular dramatic success *Journey's End*. He reached the 9th Battalion, the East Surrey Regiment, at Estrée-Cauchy on 1 October 1916, and served in France until he was wounded in action on 2 August 1917 during the Battle of Passchendaele (Third Battle of Ypres), and was sent back to England for treatment. During his active service Sherriff mentioned suffering bouts of neuralgia in letters to his parents, and he would later portray the character of Hibbert in 'Journey's End' as claiming to suffer from the same condition.

The First World War (1914-1918) was the world's first true global conflict. Most of the War's fighting took place in trenches and, in between these trenches, 'No Man's Land.' The War demonstrated brutality which had never been seen before. An estimated 9.7 military personnel were killed in total, and about 10 million civilians. Soldiers were not just killed by gunfire- many were killed by bombs and artillery, gas, disease and infection and rarer, some died by suicide or being shot by their own side for 'cowardice.' The War ended on 11th November, 1918. WW1 has been known as 'The Great War' and, ironically, 'The War to End all Wars.' An entire generation of young men was wiped out, known as 'The Lost Generation' Millions of people lost their husbands, sons and friends. Additionally, Germany were punished heavily for starting the War. This became one of the main reasons for Adolf Hitler beginning The Second World War 21 years later.

Write down everything you can remember about R.C Sherriff and WWI.

WEEK 1

English Language

Term	Definition
Crime	An offence which is punishable by law e.g. murder, stealing.
Punishment	A consequence of committing a crime and being found guilty of breaking the law.
Law	Rules that are set by government to protect its citizens and behavioural expectations. If broken, the perpetrators are punished.
Accused	A person formally charged with committing a criminal offence.
Conviction	A formal declaration that a person is guilty of a criminal offense.
Murder	The act of killing a human being.
Arson	The malicious burning of property.
Assault	An act that threatens or causes physical harm to another person.
Accomplice	A person who intentionally helps another commit a crime
Accessory	A person who helps conceal a crime or its perpetrator after it has been committed.
Prosecutor	The lawyer who represents the victim(s), society and government in a criminal case.
Defence	The lawyer who represents the accused in a criminal case.
Jury	A group of citizens who decide whether the accused is guilty or not guilty.
Sentence	The punishment given to a person who has been convicted of a crime.
Probation	A sentence that allows the offender to remain in the community under supervision.
Imprisonment	A sentence that requires the offender to be incarcerated in jail or prison.
Evil	The opposite of good; purposely causing harm or negatively disrupting others.

Write down everything you can remember from the key terminology table.

WEEK 1

Mathematics

Straight Line Graphs

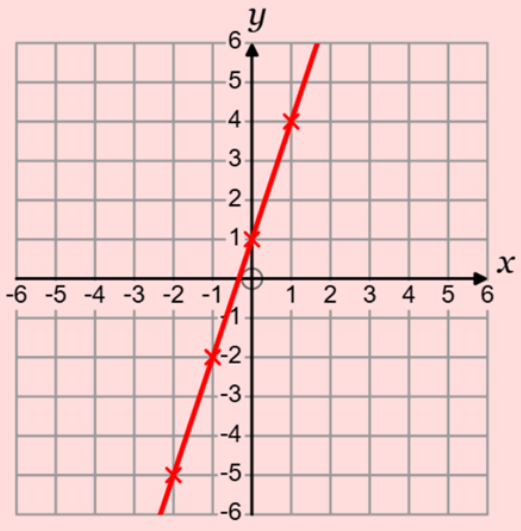
Useful definitions:

Key Vocabulary	Definition
Straight line Graphs	Straight line graphs, are also known as linear graphs where the relationship between two variables can be represented by a straight line.
Table of values	A table of values is a way of organising paired input and outputs, often used when working with equations of the line.
Gradient	The gradient is a measure of the slope of the line.
Y - Intercepts	The y-intercept is the point where a line crosses the y-axis on a graph.
Equation of the line	An equation of a straight-line graphs y =mx + c. Where m is the gradient and c is the y-intercept.

Diagrams:

Plot the graph of the function $y = 3x + 1$

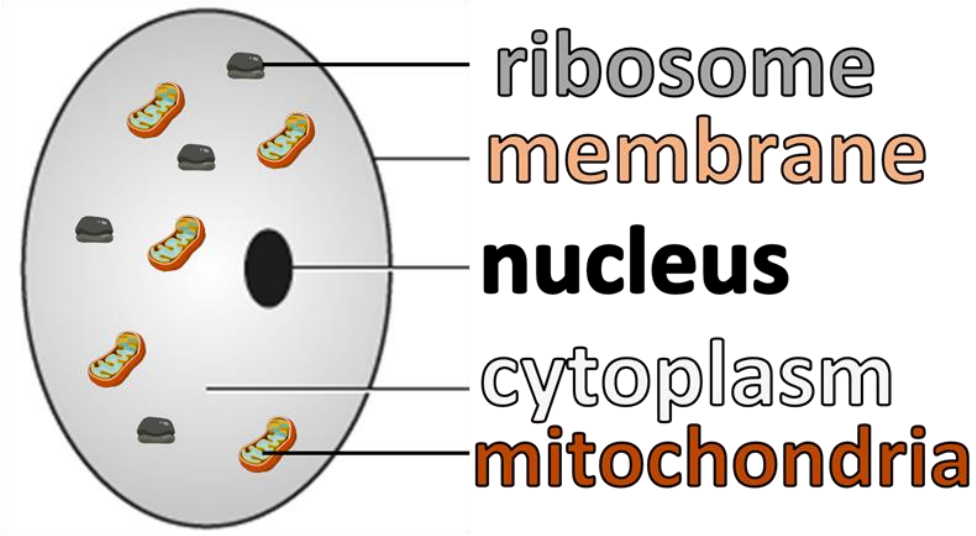
x	y
-2	-5
-1	-2
0	1
1	4
2	7

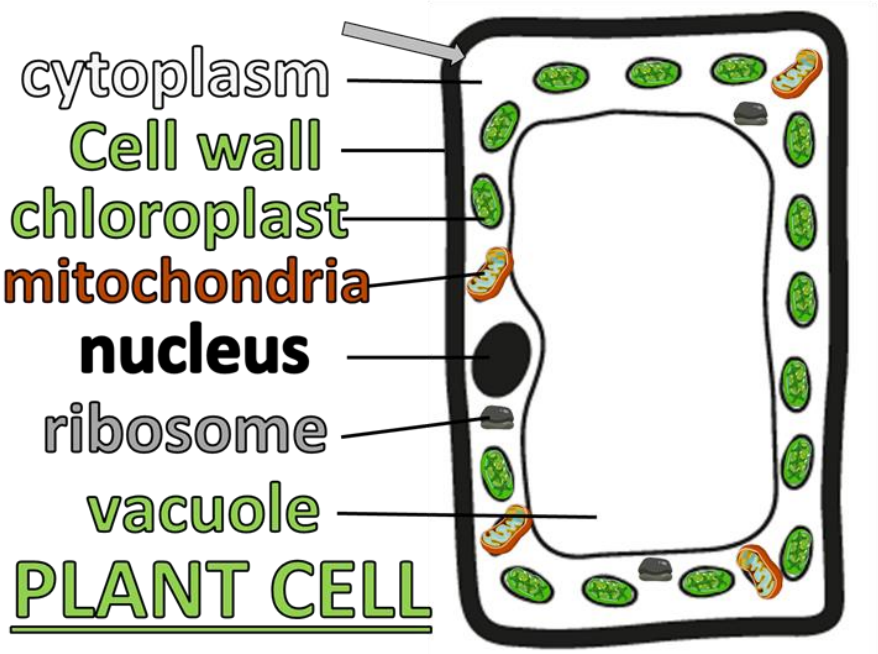


WEEK 1

Biology

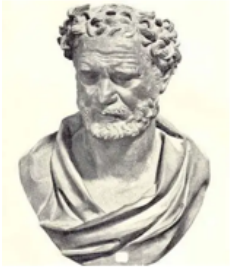
Animal and plant cells



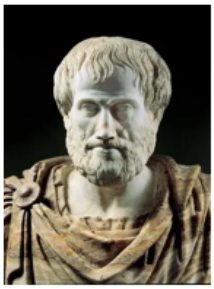


WEEK 1

Chemistry



Democritus was a Greek philosopher and he believed everything was made of tiny, indivisible particles. He called these particles "Atomos".
Aristotle and other philosophers disagreed with him and said that everything was made from Earth, Air, Fire and Water.



Later scientists were called alchemists, and they put on science shows for money. Henning Brand was one of the alchemists and he discovered phosphorous when he was trying to extract gold from urine.

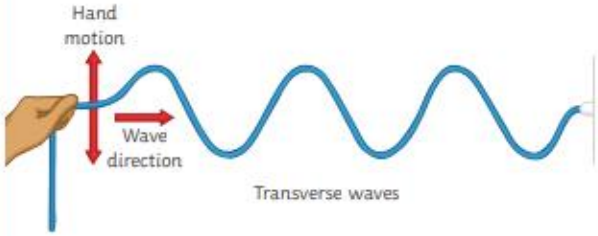
WEEK 1

Physics

Transverse and Longitudinal Waves

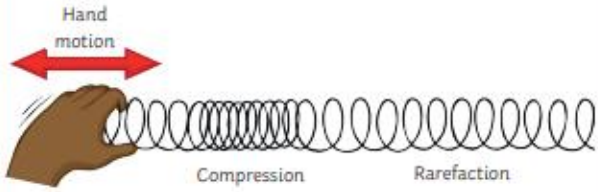
Waves can be either **transverse** or **longitudinal**.

In a transverse wave, the vibrations are at a right angle (**perpendicular**) to the direction of the energy transfer. The wave has **peaks** (or crests) and **troughs**. Examples include **water waves** and **light waves**.



Transverse waves

In a longitudinal wave, the vibrations are in the same direction (**parallel**) as the energy transfer. The wave has areas of **compression** and **rarefaction**. Examples of this type of wave are **sound waves**.



Longitudinal waves

When a wave travels, energy is transferred but the matter itself does not move. Particles of water or air vibrate and transfer energy but do not move with the wave.

This can be shown by placing a cork in a tank of water and generating ripples across the surface. The cork will bob up and down on the **oscillations** of the wave but will not travel across the tank.

WEEK 1

History

Word	Definition
Dictator	A ruler with complete control over a country.
Democracy	Demos = people, kratia = power. People power. It is a government based on participation of the people
Communist	Left - wing belief in equality and sharing. Economic theory favouring a classless society and the abolition of private property. Everyone shares all property in common, share the burden of labour and profits
Fascist	Right-wing belief in state over people
Propaganda	Information to promote a certain point of view

WEEK 1

Geography

Read through the information on the two natural hazards.

Volcán de Fuego in Guatemala

Fact file

Location: Volcán de Fuego, Guatemala

Dates: Small eruptions since 2002; major eruption on 3 June 2018; another eruption on 23 September 2021.

Impact: In 2018, 165 people were killed; volcanic ash spread over a 19 km radius of the volcano; more than 3,000 people evacuated; destruction of 8,500 hectares of corn, and coffee crops.

Earthquake Southern Türkiye/Northern Syria, February 2023

Fact file

Location: Southern Turkey, near the city of Gaziantep, and Northern Syria.

Date: On 6 February 2023, at 4.17 a.m., a 7.8 magnitude earthquake occurred. Nine hours later, a 7.5 magnitude earthquake occurred, followed by over 200 aftershocks.

Impact: More than 50,000 people killed; millions left homeless; over 214,000 buildings collapsed; 4,300 aftershocks, complicating the rescue effort.

WEEK 1

Spanish

Common infinitives	
Aprender	To learn
Bailar	to dance
Beber	To drink
Cantar	To sing
Comer	To eat
Comprar	To buy
Comprender	to understand
Discutir	To argue
Escuchar	To listen
Hablar	To speak/talk
Hacer	To do/make
Ir	To go
Llamar	To call
Nadar	To swim
Practicar	to practise
Salir	to go out
Ser	To be
Vender	To sell

WEEK 1

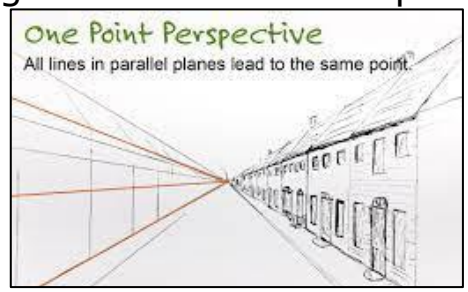
Art

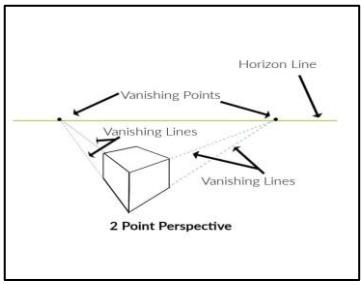
Perspective in Art

In art, perspective refers to a technique used to represent three-dimensional objects and spatial relationships on a two-dimensional surface (like paper or canvas) to create the illusion of depth and distance. It makes objects appear smaller as they recede into the distance, mimicking how the human eye perceives the world.

Some keys words to understand are:

Linear Perspective: Line that converge to one or more vanishing point. You might have heard of One- point perspective; all lines converge to one point). We will study Two-point perspective, in which line will either go to one of the two points.





Horizon Line: This is the horizontal line that represents the viewers eye level and where the land meets the sky.

Vanishing Point: This is the point on the horizon line in which all lines converge to. If it is a one- point perspective then there will only be one vanishing point, two-point equals two vanishing points, three-point/ three vanishing points. Etc.

Atmospheric Perspective: This technique uses variations in colour and tone to suggest depth. Distant objects appear paler, less detailed, and often bluer than objects in the foreground.

Light source - Depending on where objects are placed near to a light source, such as the sun, a window, a lamp, the objects will appear lighter and gradually get darker, the further they move away.

WEEK 1

Personal Development

Protected Characteristics

Age	People cannot be treated unfairly because they are young or old. Everyone deserves respect, no matter their age	
Disability	People with physical or mental disabilities must be treated fairly, with **reasonable adjustments** made to support them in school, work, and life.	
Gender Reassignment	A person is considered to be *transitioning* if they change their gender through actions like changing their name, pronouns, appearance, or having medical treatment to match their identity.	
Marriage and Civil Partnership	People must be treated equally whether they are married, in a civil partnership, or single.	
Pregnancy and Maternity	Pregnant people and new parents must not be treated unfairly because they are having or have had a baby.	
Race	No one should be treated unfairly because of their skin colour, nationality, or **ethnicity** (a person's cultural identity, which may include shared language, traditions, and history).	
Religion or Belief	Everyone has the right to follow their religion or beliefs, or to have no religion, without discrimination.	
Sex	People must not be treated unfairly because they are biologically male or female.	

WEEK 2

English Literature

You've recently been studying the importance of stage directions in your Literature lessons. Below are features often found in stage directions. Try and remember as much of the information as possible.

Setting:

A description about the location where the events of the play take place; this is often detailed.

Props:

Items which are part of the scene, making it feel more authentic to an audience (realistic.)

Character actions/gestures:

This shows to the actors what the characters are doing and how they should do it.

Vocal cues:

This prompts the actors to deliver lines in a certain way, for example: *'(angrily.)'*

Lighting and sound:

Directs particular lighting colour or intensity and any sounds which may be part of the background. These features can be subtly significant and can hint or provide a message, like in 'An Inspector Calls.'

Write down everything you can remember about stage directions.

WEEK 2

English Language

Types of Crimes

Crime	Definition
Antisocial Behaviour	Antisocial behaviour is when you feel intimidated or distressed by a person's behaviour towards you.
Arson	Arson is when someone causes criminal damage by setting fire to a person's property.
Assault	Assault is a violent crime. It's when someone physically attacks you or threatens to attack you.
Burglary	A burglary is when someone breaks into a building with the intention of stealing, hurting someone or committing unlawful damage.
Child Abuse	Child abuse can happen in different ways, and can include neglect as well as physical, emotional and sexual abuse.
Criminal Damage	Deliberately causing damage to or destroying the property of another person is a criminal offence.
Cybercrime	Online crime, or cybercrime, refers to a variety of crimes carried out online using the internet.
Domestic Abuse	Domestic abuse describes negative behaviours that one person exhibits over another within families or relationships.
Fraud	Fraud is when someone tricks or deceives you to gain a dishonest advantage, mainly for financial gain.
Hate Crime	Hate crime is the term used to describe a crime against someone based on a part of their identity.
Image-based Sexual Abuse	Image-based sexual abuse is when someone shares sexually explicit images or videos of another person without their consent.
Modern Slavery	Modern slavery is a serious and often hidden crime. It includes slavery, servitude, forced and compulsory labour, and human trafficking.
Murder or Manslaughter	Bereavement is a painful experience for anyone, but when you lose someone because of the violent actions of another person – through murder or manslaughter – it is devastating.
Robbery	A robbery is when someone takes something from you with violence or threats – usually (but not always) in the street or another public place.
Sexual Harassment	Sexual harassment is any kind of unwanted behaviour of a sexual nature that makes you feel scared, humiliated or intimidated, or that creates a hostile environment.
Stalking	Stalking is fixated, obsessive, unwanted and repeated behaviour that makes you feel pestered and harassed.
Terrorism	Terrorist attacks are sudden and unpredictable and generally calculated to create a climate of fear or terror among the public. A terror attack can lead to an ongoing feeling of insecurity.
Violent Crime	A violent crime is when someone physically hurts or threatens to hurt someone and includes crimes where a weapon is used.

Write down everything you can remember about different types of criminal acts/behaviour.

WEEK 2

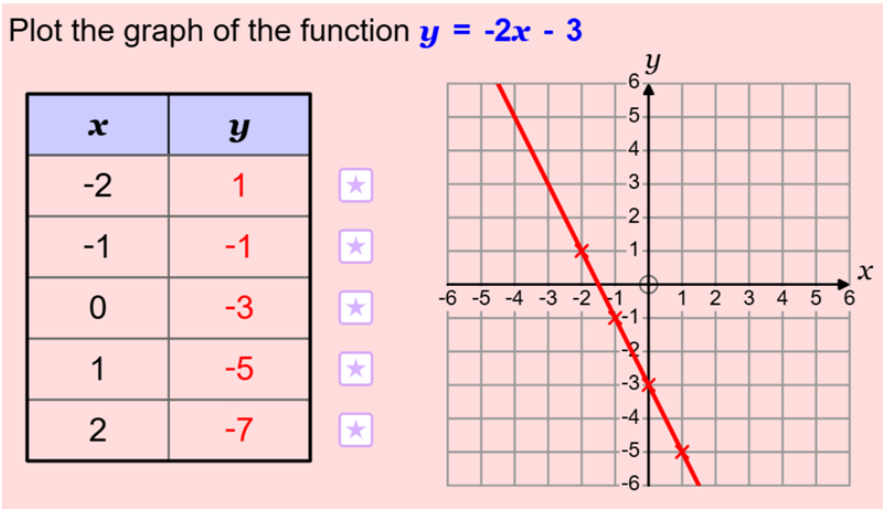
Mathematics

Straight Line Graphs

Useful definitions:

Key Vocabulary	Definition
Axis	The x-axis is the horizontal line and the y-axis is the vertical line.
Coordinate	Coordinates are pairs of numbers (x, y) that represent a points location on the grid
Quadrants	In a coordinate plant with both positive and negative numbers, the axis create four quadrants.
Parallel Lines	Parallel lines are the same distance apart from each other all the way along their length.
Origin	The origin is the point where the x-axis and the y-axis intersect.

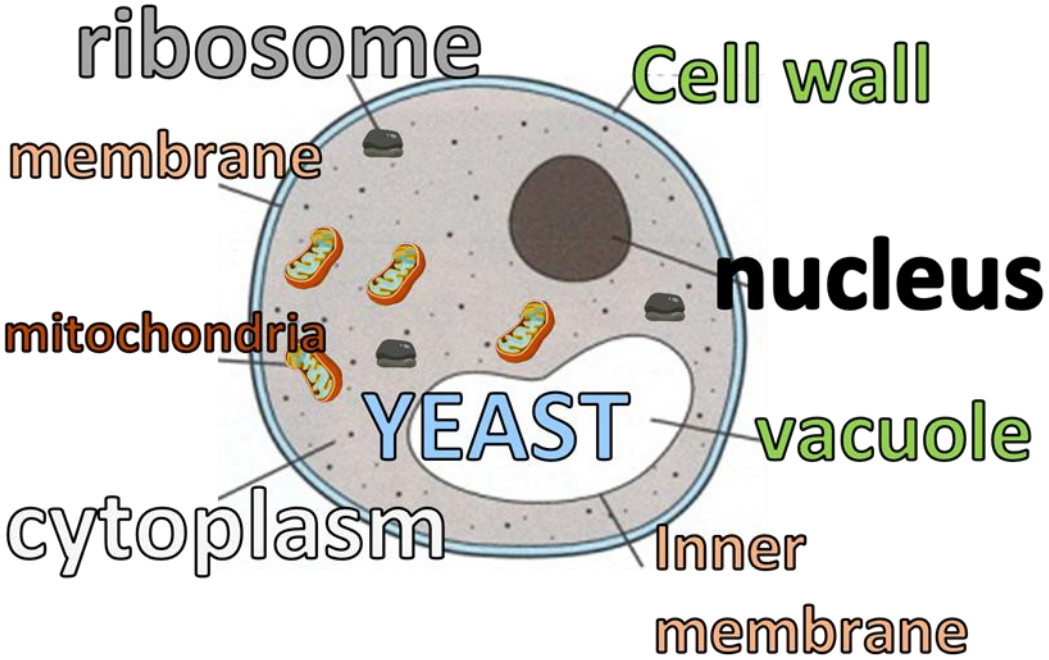
Diagrams:

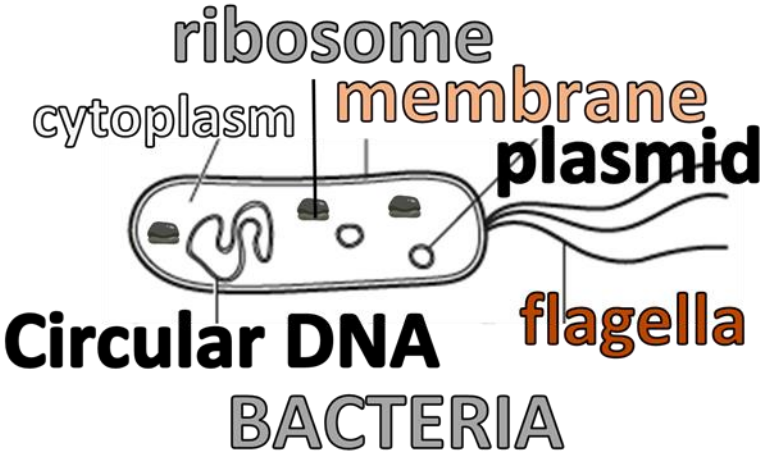


WEEK 2

Biology

Yeast and bacteria cells





WEEK 2

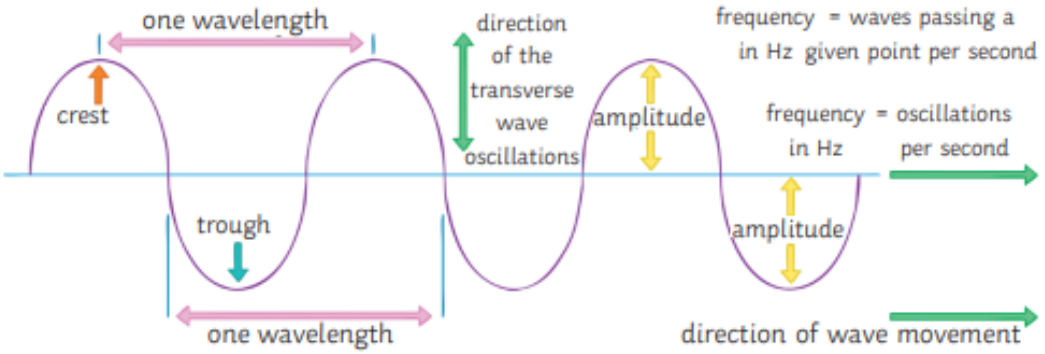
Chemistry

1. Cavendish was very rich and lived in Chatsworth house.
2. The gas that Cavendish discovered was hydrogen (element number 1)
3. When you set this gas alight it made a pop sound
4. Hydrogen is lighter than normal air.
5. Priestley came from a very poor background.
6. The first gas (compound not elements) he discovered was carbon dioxide. Using the mouse in a jar experiment Priestley discovered element 8 which is oxygen
7. He later went on to discover 10 different gases.
8. When oxygen and hydrogen are reacted together the liquid compound water is formed.
9. Carbon dioxide will turn limewater from colourless to cloudy and it will extinguish a flame.
10. Oxygen will re-light a glowing splint.

WEEK 2

Physics

Properties of Waves



The **frequency** of a wave is the number of waves which pass a given point every second.

time period (s) = 1 ÷ frequency (Hz)

$t = 1 \div f$

The **wave speed** is how quickly the energy is transferred through a medium (how quickly the wave travels).

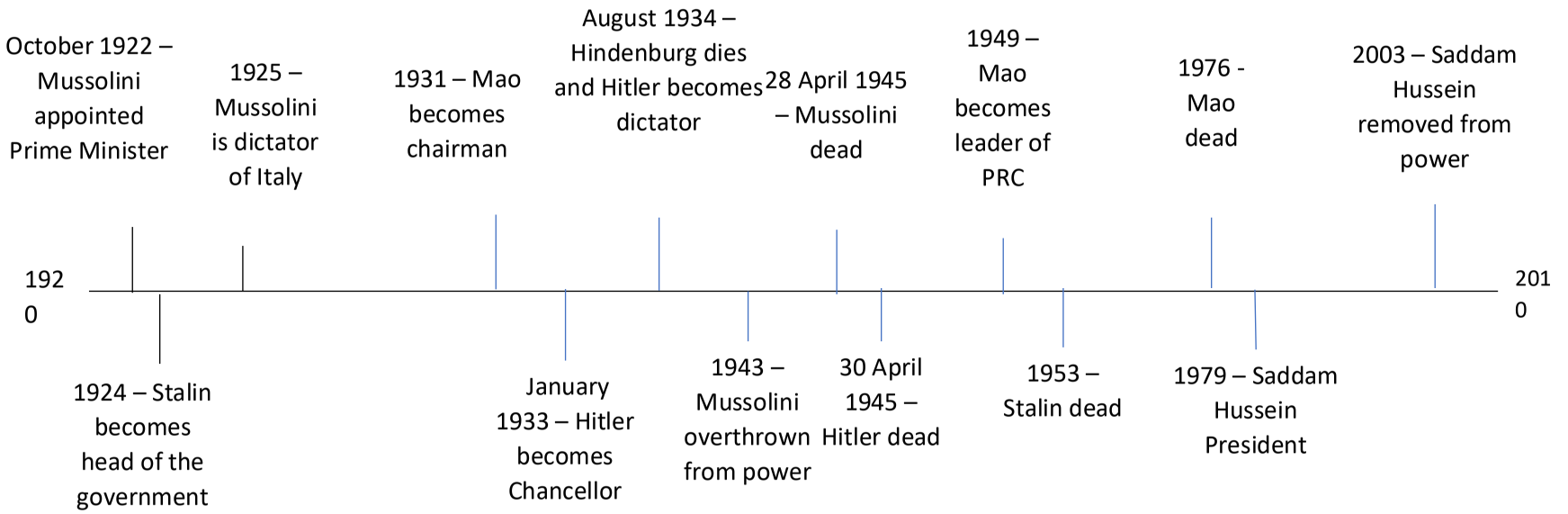
wave speed (m/s) = frequency (Hz) × wavelength (m)

$v = f \times \lambda$

The speed of **sound waves** travelling through air can be measured by a simple method. One person stands a measured distance from a large flat wall, e.g. 100m. The person then claps and another person measures the time taken to hear the echo. The speed of the sound can then be calculated using the equation

speed = distance ÷ time.

Remember the distance will be double because the wave has travelled to the wall and back again. It is important to take several measurements and calculate the average to reduce the likelihood of human error.


October 1922 – Mussolini appointed Prime Minister
1925 – Mussolini is dictator of Italy
1931 – Mao becomes chairman
August 1934 – Hindenburg dies and Hitler becomes dictator
28 April 1945 – Mussolini dead
1949 – Mao becomes leader of PRC
1976 - Mao dead
2003 – Saddam Hussein removed from power
1920
2010
1924 – Stalin becomes head of the government
January 1933 – Hitler becomes Chancellor
1943 – Mussolini overthrown from power
30 April 1945 – Hitler dead
1953 – Stalin dead
1979 – Saddam Hussein President

WEEK 2

Geography

Read through the information and retrieve the key information on the next page.

Exploring the ocean floor

Up until the Second World War, the depths of the oceans were relatively unexplored. Most people believed the ocean floor was flat and featureless. During the war, the US Navy began to map the ocean floor to help find enemy submarines. Bruce Heezen led an ongoing series of ocean expeditions collecting data measurements of ocean floors, and Marie Tharp mapped this data. In 1977, this research finally led to the creation of a revolutionary new map of the ocean floor.

This map clearly shows the existence of huge mountain ranges on the sea floor, called mid-ocean ridges. The research also revealed ocean trenches, long, narrow and very deep depressions near the edges of some continents.

Harry Hess, a professor of geology at Princeton University in the USA, had also mapped ocean floors during the Second World War. In 1962, partly based on his wartime research, he published a theory that could explain how continents could actually drift, called sea-floor spreading. However, like Wegener before him, he realised that his theory lacked convincing evidence.

Two British geologists, Frederick Vine and Drummond Matthews, studied the magnetic patterns in rocks either side of mid-ocean ridges. In 1963, they published their findings, which showed that older rocks were furthest away from the ridges. They demonstrated that new ocean floor forms at the ridges and slowly moves away. Geographers and scientists began to consider the world distribution patterns of these mid-ocean ridges, compared with those for earthquakes, volcanoes and mountain belts.

WEEK 2

Spanish

High-frequency verbs in the present tense	
Vivo	I live
Vivimos	We live
Tengo	I have
Tenemos	We have
Soy	I am
Somos	We are
Como	I eat
Comemos	We eat
Bebo	I drink
Bebemos	We drink
Paseo	I walk
Paseamos	We walk
Leo	I read
Leemos	We read
Veo	I watch
Vemos	We watch
Compro	I buy
Compramos	We buy
Hago	I do
Hacemos	We do
Salgo	I go out
Salimos	We go out
Aprendo	I learn
Aprendemos	We learn

WEEK 2

Art

Carolee S Clarke

Carolee Clark is an artist residing in Philomath, Oregon. She works predominately in acrylic favouring the subject matter of landscape and figures. Clark is a full-time artist who continues to explore artistic mediums, methods and subject matter.

Originally from the scenic Okanagan Valley in Canada, Clark grew up in an artistic household watching her mother paint.

She initially started out using watercolours, but one day just to experiment with acrylic paint, and fell in love.

When starting a piece, she will do a quick line sketch of the building, it isn't mean to be neat or take too long, it is simply to plan the composition. She often, loosely uses two-point perspective within her building work. Her paintings seem to be of common places - homes, landscapes, cars, or even the steps of a coffee shop - but the colour and vibrancy of her work invite the viewer to look closer and experience the wonder of these seemingly ordinary places.

Clark's use of colour has persisted through a major transition of media and genre.

Ever impulsive, bright, and whimsical, Clark's artwork reflects the vibrant colours of her soul. There's an integrity and honesty captured in each piece that will inspire a sense of wonder and exploration in her viewers and collectors.

WEEK 2

Personal Development

British Values

Schools follow British values to promote fairness, respect, and equality. They help create a safe, inclusive environment where everyone can learn, grow, and feel valued, no matter their differences. The British Values are as follows:

Democracy		
Rule of Law		
Individual Liberty		
Mutual Respect		
Tolerance of Others		

WEEK 3

English Literature

You have been reading 'Journey's End' and have now met the key characters. Try and remember as much as you can about each one below:

Stanhope:

The commander of 'C' Company – even though he is 21 years old and 'no more than a boy.' He has turned to alcohol to help him cope with the War – although he is still respected as a capable commander.

Osborne:

The oldest member of the Company and loved by all who know him. He is a calm, uncle-like figure, hence his nickname 'Uncle.'

Raleigh:

An 18-year-old new recruit to the Company. He knows Stanhope from home and idolises him – Stanhope is in a relationship with his sister. Stanhope worries that Raleigh will tell his sister the truth about Stanhope's alcoholism and struggles.

Trotter:

The working-class joker of the Company. Trotter provides comic relief for his colleagues.

Hibbert:

A reserved Officer in the Company who is suffering from a terrible condition called 'neuralgia.' Stanhope does not trust him.

Write down everything you can remember about the characters in *Journey's End.*

WEEK 3

English Language

Nature vs Nurture

Some criminologists believe one of the main reasons people commit crime is because it is in their 'nature', i.e. some people are more psychologically predisposed to committing criminal acts. There is evidence to suggest that some people are naturally more likely to commit crime. Recent research shows there are people who commit crime who are more likely to get angry or have no empathy or understanding of another person's feelings, e.g. psychopaths. Research of this kind has focused on the way the brain works in people who commit crime. By way of response, some criminals are given medication in the form of drugs to control their behaviour.

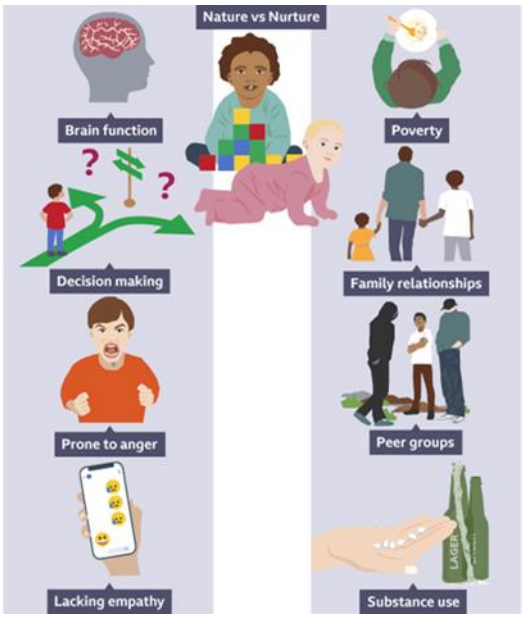
Most criminologists would agree that not all criminal behaviour can be explained by **'nature'** arguments. A different set of reasons to explain crime is called the **'nurture'** argument.

From the effects of drugs, to peer pressure, to difficult upbringings, there are many theories about the causes of crime. Different theories focus on the **choices of individuals** or on **social circumstances**.
The nurture argument suggests that factors in society and the environment people grow up in will make some people more likely to commit crime. These factors include the following:

- poverty
- family
- peer pressure
- use of alcohol/drugs

Criminological theories
Criminological theories which look to the environmental situation as the cause of crime include:

- **social disorganisation** – disorganised communities cause crime due to there being few social controls and, as a result, a criminal culture emerges
- **differential association/subculturalism** – crime is learned through association with criminals especially where some forms of criminal activity are seen as acceptable.



Write down everything you can remember about nature vs nurture and what could influence people to commit crimes.

WEEK 3

Mathematics

Ratio and Proportion

Useful definitions:

Key Vocabulary	Definition
Equation	Equations are made up of two expressions on either side of an equal's sign.
Inequality	Inequalities are used to describe the relationship between expressions that are not equal.
Inverse	Are the opposite operations
Solve	Solving an equation means finding the value or values for which two expressions on each side of the equal signs are equal.
Variable	The letters that represent unknowns are changing numerical values.

Diagrams:

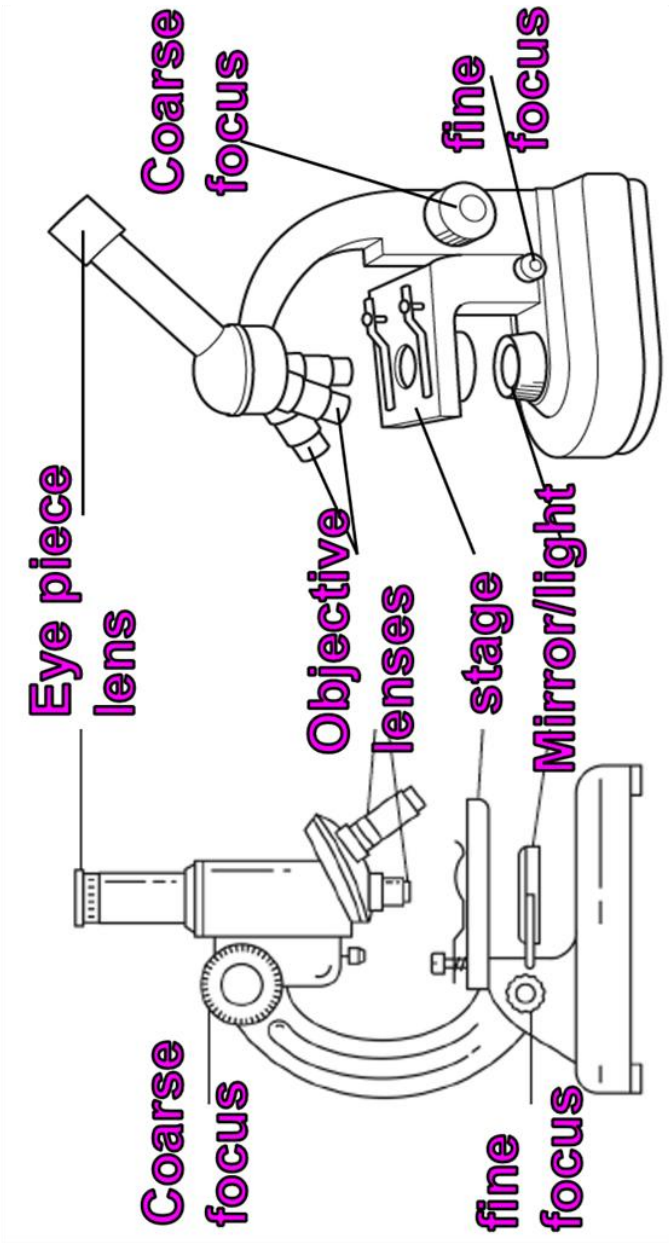
Example: Share £60 in the ratio 3:7

Step 1: 3 + 7 = 10, so there are 10 parts altogether
Step 2: £60 ÷ 10 = £6, so 1 part is worth £6
Step 3: The first person gets £6 x 3 = £18
The second person gets £6 x 7 = £42

WEEK 3

Biology

Using a microscope



WEEK 3

Chemistry

Dalton's atomic model

Dalton published his atomic theory in 1805. It still forms part of the basic ideas of modern chemistry.

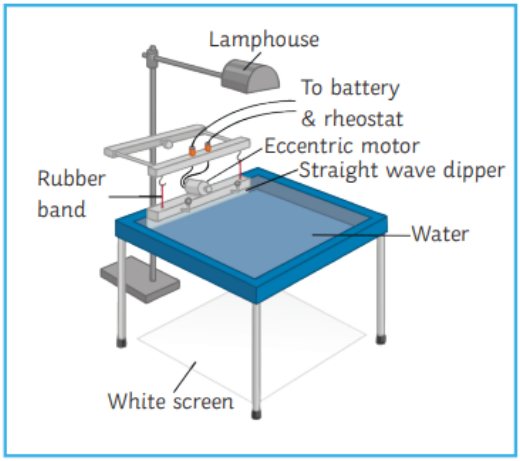
- Everything is made up of atoms.
- Atoms cannot be split up, created, or destroyed. An element is only made of identical atoms.
- The atoms of an element have the same mass and size.
- Atoms of different elements have different masses and sizes.
- Atoms of different elements join together to make compounds.
- Atoms are rearranged in chemical reactions.
- Atoms can exist as solids, liquids or gases.

WEEK 3

Physics

Required Practical Investigation 8

Aim: make observations and identify the suitability of apparatus to measure the frequency, wavelength and speed of waves in a ripple tank and waves in a solid, and take appropriate measurements.



The **ripple tank apparatus** shown is the most commonly used for this investigation. It is likely you will work in groups or observe the investigation as a demonstration by your teacher.

Method (assuming the apparatus is already set-up):

Turn on the power and observe the waves. Make any necessary adjustments to the equipment so that the waves are clear to observe (alter the voltage supplying the motor). **N.B. The lowest frequency setting on the motor will ensure that the waves measurements can be made more easily.**

To measure the **wavelength**, use the metre ruler and make an estimate quickly. You may want to use a **stroboscope** and freeze the wave patterns to make measurements.

Record 10 wavelengths and calculate the **average** value.

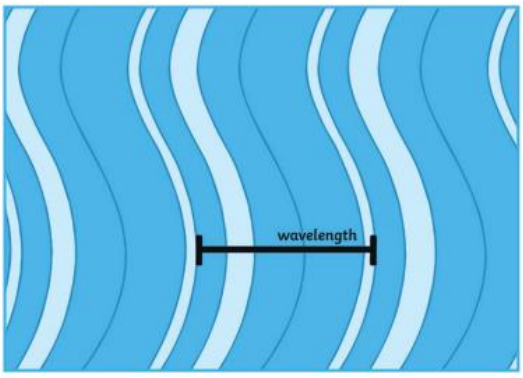
To measure the wave **frequency**, mark a given point onto the white paper and **count** the number of waves which pass the point within **10 seconds**. Divide your answer by 10 to find the number of **waves per second**.

Record 10 frequencies and calculate the **average** value.

To calculate the wave speed, use this formula:

speed = frequency × wavelength

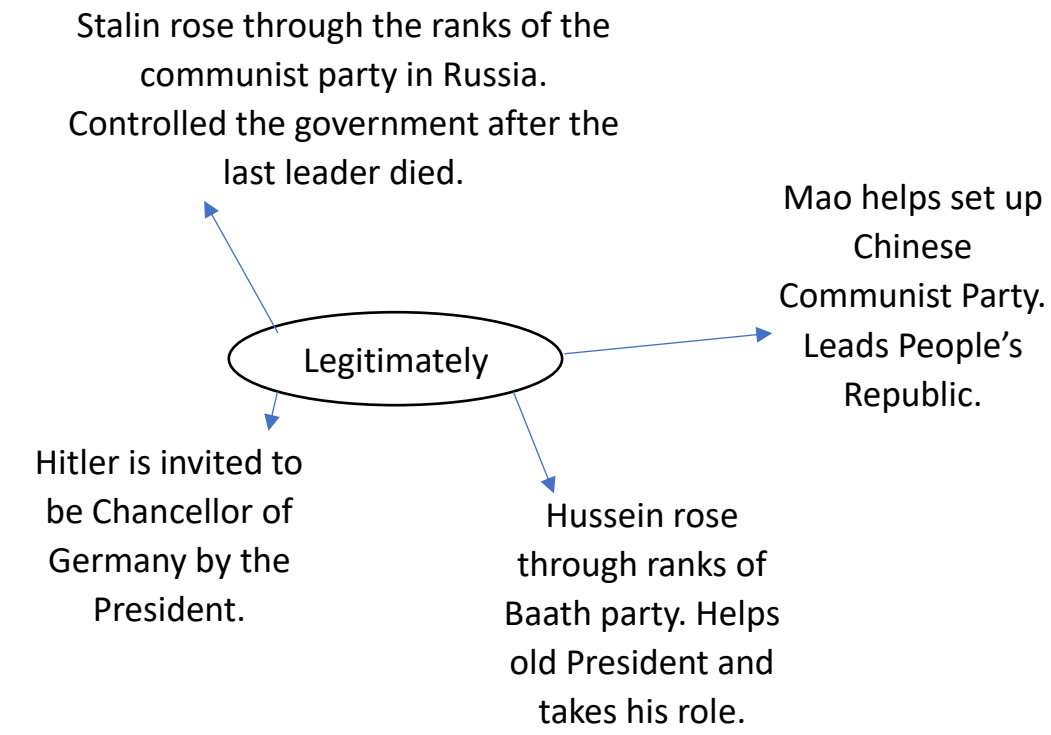
Remember: the wavelength is the distance between one peak (or crest) of a wave and the next peak.



WEEK 3

History

How did the dictators gain power?



WEEK 3

Geography

Study the four plate boundaries

WEEK 3

Spanish

Time Phrases and adverbs of frequency	
Por la mañana	In the morning
Por la tarde	In the afternoon/evening
Por la noche	At night
Todos los días	Every day
El fin de semana	At the weekend
Normalmente	Normally
Generalmente	Generally
De vez en cuando	From time to time
A menudo	Often
Siempre	Always
A veces	Sometimes
Nunca	Never
Free time activities	
Hago… ciclismo deporte equitación natación	I do… cycling sports horse riding swimming
Salgo con mis amigos	I go out with my friends
Juego al tenis	I play tennis
Leo libros	I read books
Voy… al cine a la bolera de compras	I go… to the cinema to the bowling alley shopping
Veo… una película un partido de fútbol	I watch… a movie/film a football match
Monto en bici	I go for a bike ride

WEEK 3

Art

History of Perspective in Art

The history of perspective in art spans from ancient attempts at illusionism to the systematic methods developed during the Renaissance and beyond. Early Greek art, particularly on vases, showed some understanding of perspective, around 300 BC laid the groundwork for understanding visual rays and the cone of vision. Roman painters also experimented with perspective, as seen in Pompeii and Herculaneum. However, a comprehensive understanding and consistent application of perspective was largely lost during the medieval period.

The Renaissance saw a revival and significant advancement of perspective. Brunelleschi, around 1415, is credited with formulating linear perspective, a system that uses vanishing points and orthogonal to create the illusion of depth on a flat surface. Alberti documented this system in his treatise "Della Pittura" in 1435. This development allowed artists to represent three-dimensional space with greater accuracy and realism, influencing painting, sculpture, and architecture.

While linear perspective became dominant, other forms of perspective, like aerial or atmospheric perspective, which deals with how the atmosphere affects the appearance of distant objects, were also explored. Artists like Leonardo da Vinci further refined perspective theories, making them more sophisticated and modern. Later, the rise of photography in the late 19th century led to a shift away from the exclusive focus on perspective in art, though it remains a fundamental technique. More recently, perspective has seen a resurgence in street art and digital art.

WEEK 3

Personal Development

Protected Characteristics

Age	People cannot be treated unfairly because they are young or old. Everyone deserves respect, no matter their age	
Disability	People with physical or mental disabilities must be treated fairly, with **reasonable adjustments** made to support them in school, work, and life.	
Gender Reassignment	A person is considered to be *transitioning* if they change their gender through actions like changing their name, pronouns, appearance, or having medical treatment to match their identity.	
Marriage and Civil Partnership	People must be treated equally whether they are married, in a civil partnership, or single.	
Pregnancy and Maternity	Pregnant people and new parents must not be treated unfairly because they are having or have had a baby.	
Race	No one should be treated unfairly because of their skin colour, nationality, or **ethnicity** (a person's cultural identity, which may include shared language, traditions, and history).	
Religion or Belief	Everyone has the right to follow their religion or beliefs, or to have no religion, without discrimination.	
Sex	People must not be treated unfairly because they are biologically male or female.	

WEEK 4

English Literature

During the past few weeks, you have been learning some new terms regarding 'Journey's End.' Below are their definitions – try and remember as many as you can:

Colloquial language:

Language considered conversational or informal. Trotter speaks very colloquially.

Social class:

The groupings of people in society based on their wealth, occupation and influence. The accepted classes in the UK are working, middle and upper.

Avuncular:

Being an uncle-like figure to a person or group of people. Osborne is an avuncular figure in 'C' Company.

Morale:

A mood displayed by somebody – usually collective. For example, the morale of the British public during the First World War was brave and confident.

Futility:

Something which has no point or good reason for happening.

Write down the definitions of the key vocabulary.

WEEK 4

English Language

Are murderers born or made?

Murders are tragic but rare. But what drives some people to kill?

The invention of functional brain scanning in the 1980s revolutionised the understanding of what goes on inside our heads. Over the course of many years Raine and his team scanned the brains of numerous murderers and nearly all showed similar brain changes. There was reduced activity in the pre-frontal cortex, the area of the brain which controls emotional impulses, and over activation of the amygdala, the area which generates our emotions.

So it seems that murderers have brains that make them more prone to rage and anger, while at the same time making them less able to control themselves.

But why does this happen?

Raine's studies suggest that part of the reason may be childhood abuse, which can create killers by causing physical damage to the brain. The pre-frontal cortex is especially vulnerable.

One of the prisoners that Raine scanned was Donta Page, a man who brutally murdered a 24-year-old woman when she caught him breaking into her home. As a baby Page was frequently shaken by his mother, and as he got older the abuse got worse.

"Early physical abuse, amongst other things could have led to the brain damage, which could have led to him committing this violent act," Raine says.

But only a small proportion of those who have a terrible childhood grow up to become murderers. Could there be factors that predispose us to murder?
A breakthrough came in 1993 with a family in the Netherlands where all the men had a history of violence. Fifteen years of painstaking research revealed that they all lacked the same gene.

It turns out that if you lack the MAOA gene or have the low-activity variant you are predisposed to violence. This variant became known as the warrior gene. About 30% of men have this so-called warrior gene, but whether the gene is triggered or not depends crucially on what happens to you in childhood.

Jim Fallon, professor of psychiatry at the University of California, has a particularly personal interest in this research. After discovering a surprisingly large number of murderers in his family tree he had himself genetically tested and discovered he had an awful lot of genes that have been linked to violent psychopathic behaviour. As he puts it: "People with far less dangerous genetics become killers and are psychopaths than what I have. I have almost all of them"

But Jim isn't a murderer - he's a respected professor.

So it seems that a genetic tendency towards violence, together with an abusive childhood, are literally a killer combination - murderers are both born and made.

Write down everything you can remember from the newspaper article.

WEEK 4

Mathematics

Solving equations

Useful definitions:

Key Vocabulary	Definition
Formula	A formula is a mathematical rule or relationship using letters (variables) and symbols to represent amounts that can change.
Variable	A variable is usually a letters that represents a quantity that can change or take on different values.
Coefficient	The number that multiples a variable.
Substitute	Substitution is the name given to the process of swapping an algebraic letter for its value.
Subject	The subject of a formula is the variable that is isolated on one side of the equation

Diagrams:

Solve: The inverse of + 7 is – 7

$x = 9 - 7$ so $x = 2$

To get x on its own we need to minus 7 from both sides of the equation

Substitution

When substituting, you need to replace a letters with a given numbers

c = 5b + 7

Find c when b = 4

c = 5 x **4** + 7

= 20 + 7

= 27

$h = \frac{g+4}{v}$

Find h when $g = 6$ and $v = 2$

$h = \frac{\mathbf{6}+4}{\mathbf{2}} = \frac{10}{\mathbf{2}} = 5$

WEEK 4

Biology

Making a slide method

1.Move the stage to its lowest position.

2.Place the object you want to observe on the stage.

3.Select the objective lens with the lowest magnification.

4.Look through the eyepiece and turn the coarse-focus knob slowly until you see your object.

5.Turn the fine focus knob until your object comes into focus.

6.Repeat Steps 1 to 6 using an objective lens with a higher magnification to see the object in greater detail.

Using a microscope method

1.Move the stage to its lowest position.

2.Turn the fine focus knob until your object comes into focus.

3.Place the object you want to observe on the stage.

4.Look through the eyepiece and turn the coarse-focus knob slowly until you see your object.

5.Select the objective lens with the lowest magnification.

6.Repeat Steps 1 to 6 using an objective lens with a higher magnification to see the object in greater detail.

WEEK 4

Chemistry

Dobereiner

Organised the elements in families of 3 (triads).
He said the elements in a triad had similar properties (looked the same and reacted the same way)
He came up with a rule to work out the weights of the atoms.- he took the lowest and highest masses in the group and found the average to be the mass of the middle element.

Lithium, sodium and potassium are in a group together.

The mass of lithium is 7, the mass of potassium is 39.
Average = (7+39)/2 = 23
The mass of sodium is 23!

This didn't work for all groups of 3, for example copper, silver and gold:
Mass of copper is 64, mass of gold is 197
Average = (64+197)/2 = 130.5
The mass of silver is 108

Newlands

When Newlands ordered the elements by weight, he noticed that every 8th element repeated properties. He called them octaves because he likened it to 8 notes of a scale in music

Problems with the law of octaves

1. The law didn't account for the missing elements that had not been found
2. This caused the pattern to break down on the third row
3. Some of his elements didn't have similar properties (like hydrogen and chlorine)
4. He mixed up metals and non-metals! (sulfur and iron)

WEEK 4

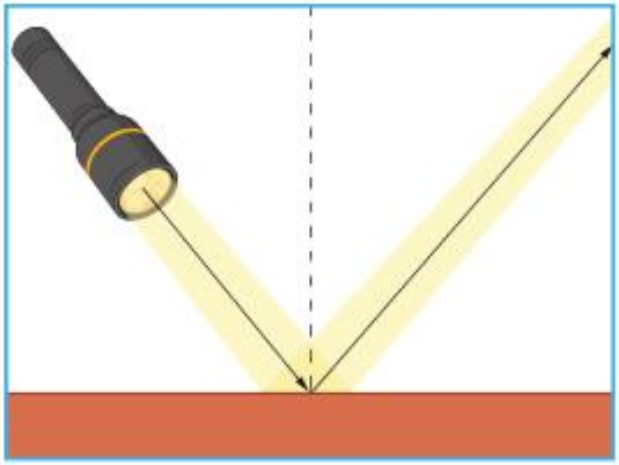
Physics

Reflection of Waves

When a **wave** comes into contact with a **surface** or a **boundary** between two media (different materials), it can be **reflected** or it can be **absorbed**.

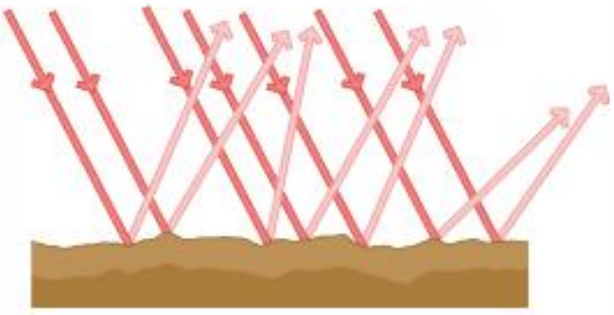
What happens depends on the properties of the surface the wave hits.

Specular reflection occurs when a wave is reflected in a **single direction** from a perfectly **smooth surface**.



angle of incidence = angle of reflection (i = r)

Diffuse reflection occurs when a wave is reflected in **many directions** and happens at a rough or **uneven surface**.



WEEK 4

History

What methods did the dictators use to remain in power?	
Propaganda	• Mao's 'Little Red Book' of quotes to read daily • Mussolini forced cinemas to play propaganda movies • Hitler created an education system that reinforced Nazi beliefs • Films, speeches and rallies used by Hitler
Censorship	• Stalin rewrote history to increase his involvement • Insulting Hussein in any way was punishable by death • Mussolini himself checked films, letters, news.
Terror	• Mao's Red Guards (students) would attack their teachers. • Mussolini rigged elections • Hussein had over 107 torture methods and poisoned Kurdish people • Gestapo and SS used by Hitler to cause fear
Other methods	• Mao's 'Great Leap Forward' in China, collectivised farms and killed 36 million. • Mussolini made agreements with Church • Under Hitler unemployment dropped from 6 million to 302,000.

WEEK 4

Geography

Earthquake in Nepal, 2015

. On Saturday 25 April 2015, the streets of the Nepalese capital, Kathmandu, were busy with residents and tourists meeting friends, selling their produce in the markets or preparing for lunch. At 11:56 a.m. everything changed. A massive, magnitude 7.8 earthquake struck. It was the biggest earthquake in Nepal for over 80 years, the previous large earthquake occurring in 1934.

The epicentre of the quake was Barpak village, around 75 km north-west of Kathmandu in the Gorkha region.

The seismic focus lay at a depth of 10 km, close to the surface. The million-strong population of Kathmandu had their lives thrown into chaos, along with the residents of the many villages within a 100 km radius of the quake.

Though many have worried about the stability of the concrete high-rises that have been hastily erected in Kathmandu, the most terrible damage on Saturday was to the oldest part of the city, which is studded with temples and palaces made of wood and unmortared brick.

Nearly 9,000 people died and more than 22,000 suffered injuries. It was the deadliest earthquake in the seismically active region in 81 years.

© GeoPic / Alamy Stock Photo

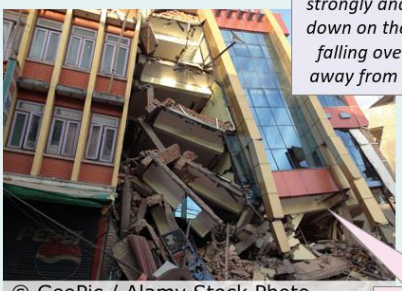
Hundreds of thousands of people lost everything and faced extreme poverty. More than 600,000 homes were destroyed and more than 288,000 were damaged in the 14 worst-hit districts. The quake's strongest impact was in remote rural areas, making the response extremely challenging.

The quake was followed by hundreds of aftershocks, and only 17 days later there was another major quake, a magnitude 7.3 tremor.

The death toll has passed 4,000, but we don't know about the remote villages yet. We can't get to them: roads are blocked by landslides.

Everything suddenly started shaking. It wasn't too severe at first and we all managed to get out of the building. Then when we were in the yard outside everything started shaking very strongly and we were all bending down on the ground to stop from falling over, and keeping as far away from the walls as possible.

People need food, shelter, medicine and power. People are sleeping outdoors due to fear of aftershocks.



© GeoPic / Alamy Stock Photo

The quake triggered an avalanche on Mount Everest, killing at least eight people.

Rescuers are digging through the rubble of collapsed buildings in the capital trying to reach survivors, as thousands prepare to spend the night outside as darkness falls.

WEEK 4

Spanish

TV Programmes, opinions and justifications	
Los dibujos animados	Cartoons
Las telenovelas	Soaps
Los concursos	Gameshows
Las películas	Films/movies
Las series	Series
Los programas musicales	Music programmes
Los programas deportivos	Sports programmes
Los programas de cocina	Cookery programmes
Las noticias/el telediario	The news
El tiempo	The weather
Lo anuncios	The adverts
La telerrealidad	Reality TV
La series policíacas	The police/crime drama
Me encanta(n)/me chifla(n)/me mola(n)	I love
Me gusta(n) (mucho)	I like (a lot)
Me gusta(n) (bastante)	I (quite) like
Me gusta(n) (un poco)	I like (a bit)
No me gusta(n) nada	I don't like at all
Odio (con pasión)	I hate (with a passion)
Me enfada(n)	…makes me angry
Me estresa(n)	…makes me stressed
No me interesa(n)	…doesn't/don't interest me
Aburrido/a	Boring
Tonto/a	Silly/stupid
Un rollo	Funny
Educativo/a	Educational
infantil	Childish
interesante	interesting
emocionante	Exciting
informativo	Informative
divertido	Fun
gracioso	funny

WEEK 4

Art

Liam Spencer – Oil Pastels

Liam Spencer is one of the rising stars of the British contemporary arts scene, renowned for his vivid portrayals of the urban landscape around Manchester.

Liam Spencer was born in Burnley in 1964, and studied Fine Art at Manchester Polytechnic, graduating in 1986, he came to prominence with a solo exhibition at the newly opened Lowry arts centre in 2000.

He describes himself as being closest to the Impressionist artists, especially early in the movement when artists like Monet were dealing with the rapidly changing modern world. He paints fairly broadly, with big brushes, and tries to convey how we might see the world at a glance - the big impressions - not how we see the world when we stare at it and count the number of trees or register the minutiae of the scene. He uses mark making to create texture and a sense of movement.

His artwork is of mainly big cities, and he uses oil paints for the majority of his work. He focus's a lot on rain scenes and used oil paints to create a realistic effect in his work.

While we don't use oil paints in school, due to the difficulty in cleaning, removing from clothes and the length of time it takes for them to dry, we can still use some oil qualities in oil pastels. Oil paint and oil pastels share similarities in their pigment, oil binder, and ability to create rich, vibrant colours. Both mediums offer a smooth, creamy texture for blending and layering, and can be used to achieve impasto effects and various textures. Additionally, both can be applied directly to surfaces like paper and canvas.

WEEK 4

Personal Development

British Values

Schools follow British values to promote fairness, respect, and equality. They help create a safe, inclusive environment where everyone can learn, grow, and feel valued, no matter their differences. The British Values are as follows:

Democracy		
Rule of Law		
Individual Liberty		
Mutual Respect		
Tolerance of Others		

WEEK 5

English Literature

During the past few weeks, you have been learning some new terms regarding 'Journey's End.' Below are their definitions – try and remember as many as you can:

Hyperbole:

Another term for exaggeration – stretching a statement to the point where it is not meant to be taken literally.

Litotes:

The intentional under-exaggeration of something, often for effect. For example, saying that 'The First World War was not the best for everybody involved.'

Status:

Social standing within a group, profession or situation.

Propaganda:

Information – especially of a biased nature – which has been designed intentionally to encourage somebody to do something.

Imperative:

A command or forceful instruction.

Write down the definitions of the key vocabulary.

WEEK 5

English Language

What are the offences of Murder and Manslaughter?

Murder and **manslaughter** are both forms of unlawful killing. Whilst murder refers to a single offence, manslaughter encompasses four separate offences, which can be divided into two types: voluntary and involuntary.

What is murder?

An offence of murder is committed where the offender:

1. Unlawfully kills another person.
2. Was of 'sound mind and discretion' at the time of the offence.
3. Had the intention to kill or cause grievous bodily harm (GBH).

What is manslaughter?

Voluntary manslaughter is made up of the offences of:

- Manslaughter by reason of loss of control; and
- Manslaughter by reason of diminished responsibility

These are the offences a person can be convicted with upon a successful plea of a partial defence to a murder charge. Offences of voluntary manslaughter are therefore quite similar to murder.

Involuntary manslaughter refers to the offences of:

- Unlawful act manslaughter (sometimes called 'constructive manslaughter'); and
- Gross negligence manslaughter

These offences have their own individual requirements, and involuntary manslaughter is therefore much more distinct from murder.

What are the differences between the offences of Murder and Manslaughter?

The key differences between the offence of murder and those of manslaughter are:

1. The *mens rea* (the 'mental' element)
2. The sentence
3. The available defences

What is the *mens rea*?

In order to commit a criminal offence, the defendant must usually have a particular mental state. This is called the *mens rea*.

For the offences of murder, manslaughter by reason of loss of control, and manslaughter by reason of diminished responsibility, there must be intention to kill or cause grievous bodily harm. However, a person can commit the offences of involuntary manslaughter with no intention to cause any harm whatsoever, let alone to kill.

Write down everything you can remember about the differences between murder and manslaughter.

WEEK 5

Mathematics

Factors, Multiples and Primes

Useful definitions:

Key Vocabulary	Definition
Factor	Factors are numbers which can be multiplied together to create another number
Multiple	A multiple is a number that can be divided by a smaller number
Prime	Prime numbers are numbers that only have two factors.
Common	A common factor is a factor that is shared by two or more numbers
Expression	An expression is a mathematical statement with no equal symbols.

Diagrams:

List all the factors of 20

The following numbers are all a factor of 20

1 and 20, 2 and 10, 4 and 5

Factors are often paired as their product is the given number

List the first five multiples of 4

Following the 4 times table

1 x 4 = 4, 2 x 4 = 8, 3 x 4 = 12, 4 x 4 = 16, 5 x 4 = 20

The first 5 multiples of 4 are 4, 8, 12, 16 and 20

WEEK 5

Biology

Microscope calculations 1

Total Magnification = Magnification of eye piece X Magnification of Objective lens

The eyepiece lens (ocular lens) has a magnification of x10

There are three objective lenses on the microscopes.

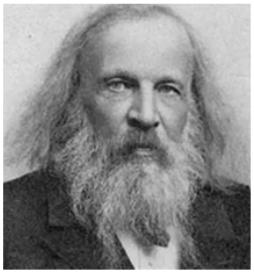
Their magnifications are:

- RED x4
- YELLOW x10
- BLUE x40

WEEK 5

Chemistry

Mendeleev



- Mendeleev put the elements in weight order. He then sorted them into groups where the properties were similar.
- Some of the elements seemed to be in the wrong order so he swapped them so their properties matched better with their new groups.
- Mendeleev left gaps in the table as he realised some elements had not been discovered yet.
- He used the properties of the elements in the same group as the gap to make predications about melting points, boiling points and how they reacted with other elements.

Required Practical Investigation 9

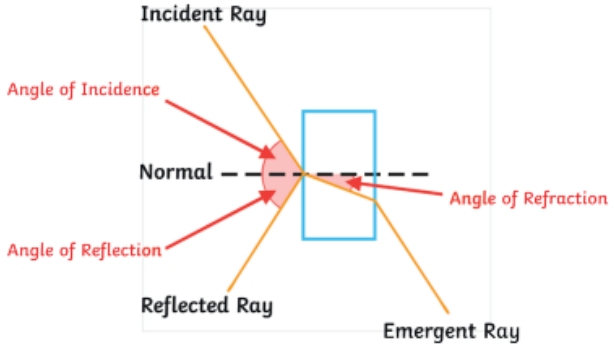
Aim: investigate the reflection of light by different types of surface and the refraction of light by different substances.

Method:

1. In a darkened room, set up the ray box on a flat surface and insert the filter to produce a single ray of light.
2. Place a glass block in the centre of a piece of plain A3 paper.
3. Draw a line around the glass block.
4. Draw a line at 90°C to the glass block and label the line normal, as shown in the diagram.
5. Position the ray box so the ray of light hits the glass at an angle.
6. Using a pencil, draw the incidence, reflected and emergent rays as shown in the diagram.
7. Remove the glass block and draw the refracted ray going through the block.
8. Using a protractor, measure the angles of incidence, reflection and refraction. Record your results.
9. Repeat the experiment by placing a clear acrylic block on the A3 paper in the same position as the glass block.
10. The incident ray must follow the same line as before. Draw the reflected and refracted rays and measure using a protractor.
11. Collect four sets of results from other members of the class.

The law of reflection states:

angle of incidence = angle of reflection



Risk assessment:

The ray box will become hot during use and may cause minor burns. To prevent this, you should not touch the lamp and ensure you allow time for the ray box to cool after use.

You will be working in a semi-dark environment which means there is a higher risk of trips or falls. You should ensure your working space is clear of bags and coats, and that stools are tucked under desks before you start your investigation.

WEEK 5

History

Leni Riefenstahl, propaganda and Nazi Germany:

Who was Leni Riefenstahl?

Born in Berlin in 1902, Riefenstahl began as a dancer and actress before an injury stopped her. She then turned her attention towards filmmaking. In 1932, she directed *The Blue Light*, showing she could lead both on-screen and behind the camera. Hitler himself saw the film and loved how artistic she was.

How did she become involved in propaganda?

After 1933 Hitler made her the lead filmmaker for Nazi rallies. Despite the Nazi ideals about women being mothers and housekeepers, Leni took on a leadership role in making these films. Some male colleagues of hers questioned her ability because she was a woman, but she proved them wrong.

Her propaganda films:

She created *Triumph of the Will* in 1935 which celebrated Hitler and made him appear heroic. In 1936 she created Olympia using the Olympics of that year which were held in Berlin, Germany. This film celebrated athletes who were German and celebrated them. She worked with full government support, and the support of Hitler himself, to create these films which helped to shape the way the public felt about the Nazi regime.

Why could she do this as a woman?

The Nazis promoted that women should have a domestic role – working within the home and being mothers. Leni Riefenstahl went against this idea with her unusual role.

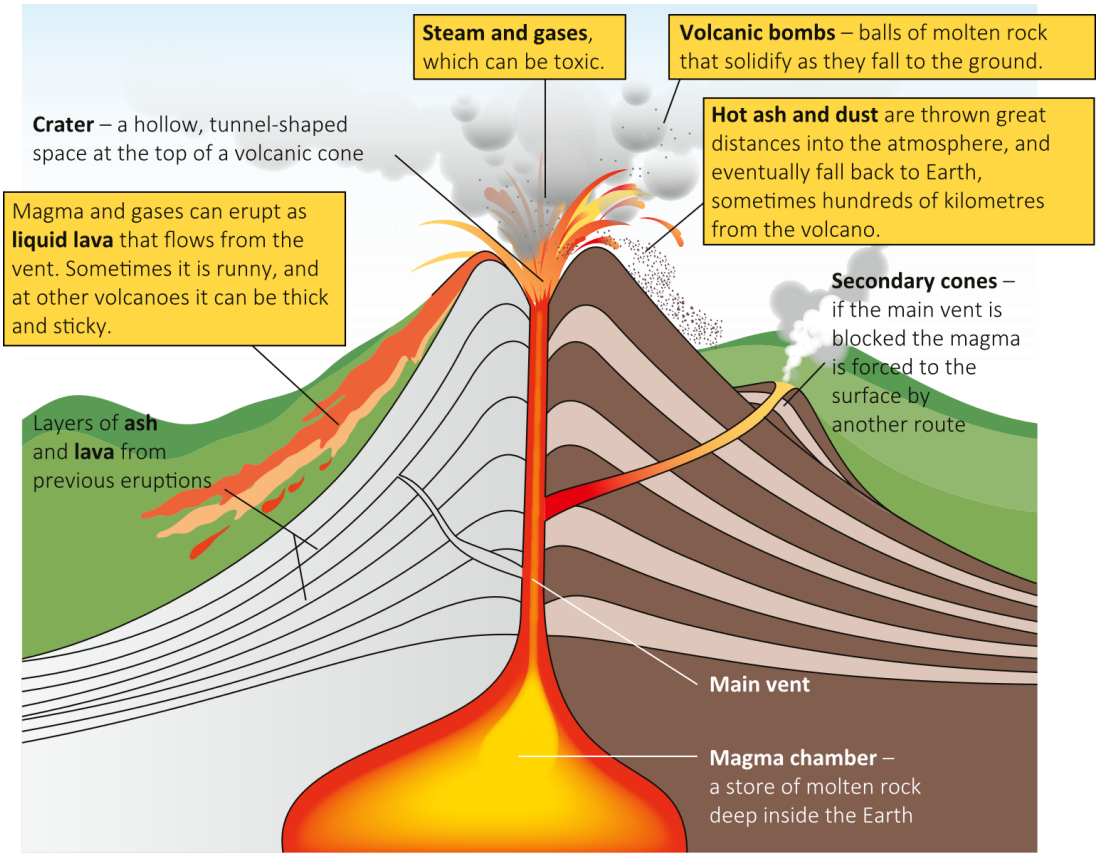
What happened after?

After the end of World War II, Leni Riefenstahl was captured by the Allies and faced trials for being a member of the Nazi regime. She was never imprisoned for war crimes and was decided to be a 'Nazi sympathiser'. She later turned to photography and tried very hard to distance herself from the films she made whilst creating for the Nazi regime, calling them pieces of art and not propaganda.

WEEK 5

Geography

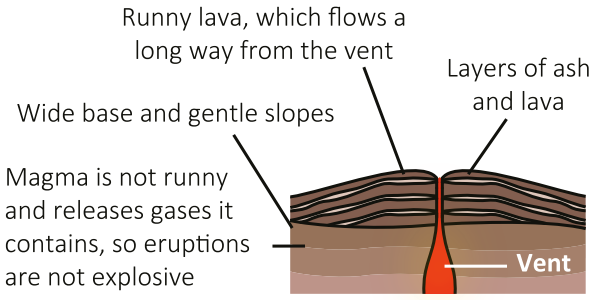
The structure of a volcano



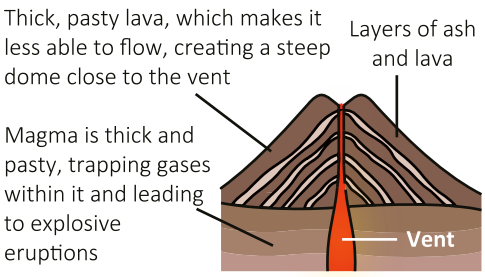
Three stages of a volcano

Volcanoes occur in three states or stages:

- An **active volcano** is erupting or has erupted recently and is likely to erupt again.
- A **dormant volcano** is one that has not erupted for 10,000 years, but could become active again.
- An **extinct volcano** has not erupted for the last million years and will probably never erupt again.



Shield volcanoes
Tends to form at constructive plate boundaries



Composite cones or stratovolcanoes
Tends to form at destructive plate boundaries

WEEK 5

Spanish

Film Genres	
Las películas de amor	Romantic films/about love
Las películas de ciencia ficción	Science fiction films
Las películas de miedo	Scary/horror films
Las películas de animación	Animated films
Las películas de acción	Action films
Las películas de comedia	Comedy films
When/if case scenarios (subordinate clauses)	
Cuando	When
Si	If
Tengo dinero	I have money
Tengo tiempo	I have time
Cuando hace sol/llueve	When it's sunny/it rains
Free time activities for bad/good weather/free time	
Me quedo en casa	I stay home
Tomo el sol	I sunbathe
Leo libros	I read books
Salgo con mis amigos	I go out with my friends
Monto en bici	I go for a bike ride
Voy al cine	I go to the cinema
Veo una película	I watch a film

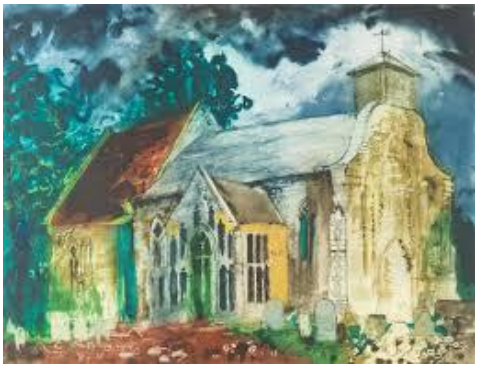
WEEK 5

Art

John Piper

John Egerton Christmas Piper was born on Dec. 13, 1903, in Epsom, Surrey, England. He attended Epsom College, Richmond School of Art (1926–27), and the Royal College of Art (1927–29). In the early 1930s he painted visually powerful cubist works and was elected to the "7 & 5 Society" of nonrepresentational artists. He found abstract art limiting, however, and in 1937 he returned to an early love of architectural form. As an official war artist during World War II, he depicted the poignancy of bombed out buildings, notably the devastation of Coventry Cathedral. He would travel around the country to capture buildings that had been bombed and destroyed in the war.

He was also commissioned by the queen to paint 26 watercolours of Windsor Castle in case it was destroyed. After the war Piper continued to paint neoromantic portraits of historic country houses and landscapes. He used a range of processes to make his expressive and energetic landscapes, often exaggerating the formal qualities of line, texture and colour. He also painted, printed, illustrated books and made stained glass windows! John He would use a range of materials to capture the different landscapes, including newspaper, ink, acrylic paint, watercolour paint and collage. He used these methods to capture dramatic landscapes and be able to fully explore surface and mark-making. Piper created pieces with a huge range of shadows, textures and moods.



WEEK 5

Personal Development

Protected Characteristics

Age	People cannot be treated unfairly because they are young or old. Everyone deserves respect, no matter their age	
Disability	People with physical or mental disabilities must be treated fairly, with **reasonable adjustments** made to support them in school, work, and life.	
Gender Reassignment	A person is considered to be *transitioning* if they change their gender through actions like changing their name, pronouns, appearance, or having medical treatment to match their identity.	
Marriage and Civil Partnership	People must be treated equally whether they are married, in a civil partnership, or single.	
Pregnancy and Maternity	Pregnant people and new parents must not be treated unfairly because they are having or have had a baby.	
Race	No one should be treated unfairly because of their skin colour, nationality, or **ethnicity** (a person's cultural identity, which may include shared language, traditions, and history).	
Religion or Belief	Everyone has the right to follow their religion or beliefs, or to have no religion, without discrimination.	
Sex	People must not be treated unfairly because they are biologically male or female.	

WEEK 6

English Literature

During lessons, you have been discussing the conditions of PTSD and neuralgia. Below is key information about each condition. Remember as much as you can of the information below.

PTSD:

Post-Traumatic Stress Disorder (known during The First World War as 'Shellshock' is an anxiety disorder caused by very stressful, frightening or distressing events. PTSD can develop immediately after somebody experiences a disturbing event or it can occur weeks, months or even years later.

Symptoms of PTSD could include flashbacks, insomnia, involuntary trembling and drastic mood swings, amongst others. PTSD is estimated to affect about 1 in every 3 people who have a traumatic experience.

Neuralgia:

Neuralgia is another term for nerve pain. It occurs when there is damage to a person's nerves, due to disease or injury. It can be different from other types of pain – it can be acute (short-term) or chronic (long-term.) Symptoms of neuralgia include a shooting or stabbing pain, a burning sensation, pins and needles and sudden electric shocks. Neuralgia can be very difficult to treat.

Write down everything you can remember about PTSD and neuralgia.

WEEK 6

English Language

Key Vocabulary

Key Vocabulary	Definition
Murder	The unlawful premeditated killing of one human being by another.
Manslaughter by loss of control	When a person kills another after losing self-control due to a qualifying trigger e.g. the defendant's emotional state at the time of the act, rather than a cold, calculated intent to kill.
Gross Negligence	A severe level of carelessness, exceeding ordinary negligence by demonstrating reckless disregard for the safety of others.
Self-defence	Using reasonable force to protect oneself, another person, or property, or to prevent crime or make a lawful arrest.
Automatism	The performance of actions without conscious thought or intention. e.g. diabetic patients who commit crimes while hypoglycaemic may be able to plead automatism.
Insanity	A defendant claims they were not criminally responsible for their actions due to a mental illness at the time of the offence.
Diminished Responsibility	An unbalanced mental state that is considered to make a person less answerable for a crime and to be grounds for a reduced charge, but that does not classify them as insane e.g. low intelligence, psychotic break, medical condition etc.
Self-defence	The use of reasonable force to protect oneself or members of the family from bodily harm from the attack of an aggressor, if the defender has reason to believe they are in danger. Self-defence is a common defence by a person accused of assault, battery or murder.
Duress	A situation where one person makes unlawful threats or otherwise engages in coercive behaviour that causes another person to commit acts that they would otherwise not commit. E.g. Kidnap your family to rob a bank.

Write down everything you can remember from the key vocabulary table.

WEEK 6

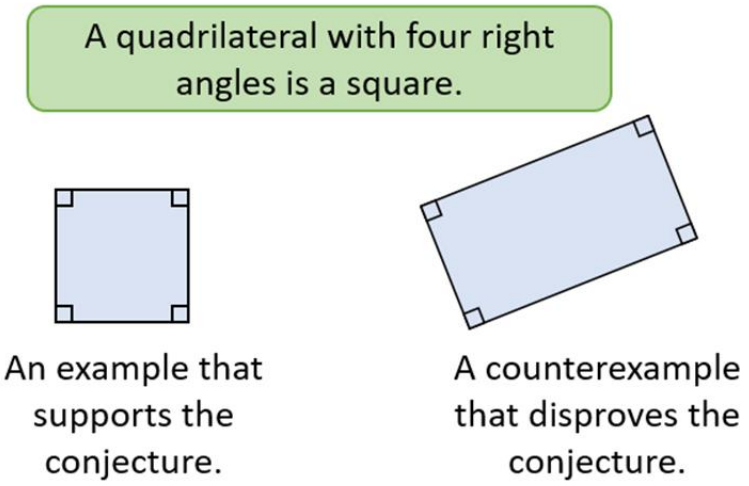
Mathematics

Conjecture

Useful definitions:

Key Vocabulary	Definition
Conjecture	A conjecture is a statement that is a believed to be true but has not yet been proven.
Counterexample	A counterexample can be used to show a statement is not always true.
Demonstrate	To demonstrate a conjecture, you need to prove it using logical steps, often involving algebra.
Verify	To verify a conjecture means to prove it is true for all examples or to find a counterexample to show its false.
Prove	To prove a conjecture, you need to demonstrate that it holds true for all possible cases.

Diagrams:



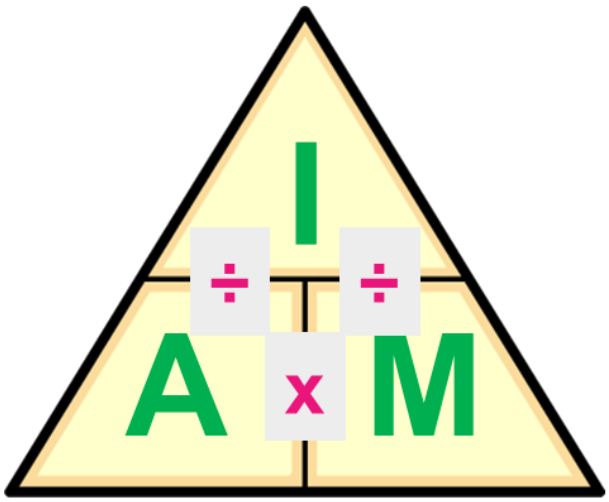
WEEK 6

Biology

Microscope calculations 2

We can calculate either the magnification, size of image or the actual size of what we are observing by using the formula below:

$$\text{actual size of the object} = \frac{\text{size of image}}{\text{magnification}}$$



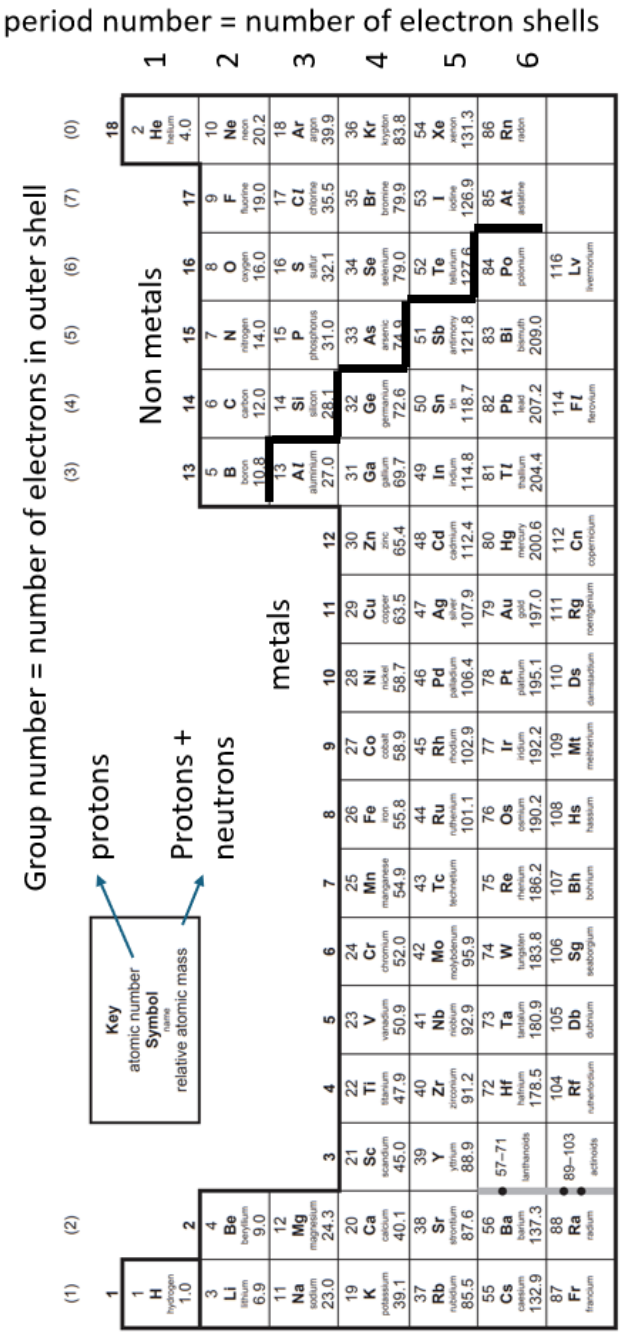
I = Size of Image

A = Actual size of image

M = Magnification

WEEK 6

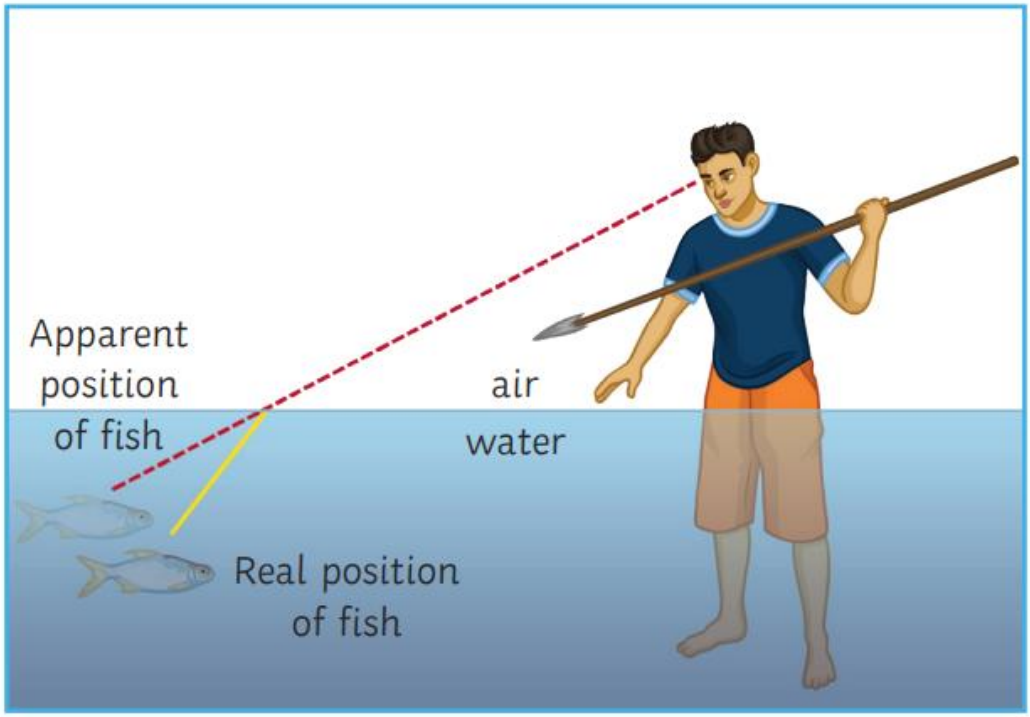
Chemistry



WEEK 6

Physics

Refraction occurs when a wave **changes direction**, usually at the boundary or two different materials. The **density** of the material affects the **speed** at which the wave can travel through it. When a wave passes from a more dense material to a less dense material, it speeds up and so will bend.



Imagine a car travelling across a muddy river at an angle. As it approaches the bank of the river, one of the wheels will be on the dry bank while the other is still in the mud. The wheel on the dry bank will move faster than the one still in the mud and it will change direction.

WEEK 6

History

Legacy of the dictators:

Mussolini – provided a model for other aspiring dictators

Stalin – made Russia into a world superpower in his rule

Hitler – remembered for his great evils during his rule

Mao – neither fully good or bad, he helped peasants but terrorised China

Hussein - brutal to Iraq when leader, some still like his methods

WEEK 6

Geography

Prediction, planning and preparation

Prediction: Volcanologists monitor volcanoes all over the world, taking readings to determine change so they can predict whether a volcano is likely to erupt.

Planning helps communities to respond and recover from a natural disaster, such as a volcanic eruption. It includes drawing up evacuation plans and using hazard maps to prevent building in high-risk areas where lava might flow. It also involves setting up warning systems.

Preparation involves educating people on what to do if a nearby volcano erupts.

WEEK 6

Spanish

Reading for pleasure	
¿Qué lees?	What do you read?
Leo	I read
Prefiero leer	I prefer to read
las biografías	biographies
las novelas de... vampiros amor ciencia ficción	Novels about... vampires love sci-fi
tebeos	comics
revistas	magazines
periódicos	newspapers
Mi libro favorito es…	My favourite book is…
es…	it is…
útil	useful
inútil	uselss/pointless
ameno	enjoyable
gracioso	funny
informativo	informative
es importante leer	it's important to read
es bueno para mi educación	it's good for my education
Leer me ayuda a…	reading helps me to…
escribir correctamente	write correctly
tener imaginación	to have imagination
pensar	to think
pasar el tiempo	to pass the time
mejorar en el colegio	to improve at school
sin embargo	however
me aburre	it bores me
me interesa	it interests me
me motiva	it motivates me
me inspira	it inspires me

WEEK 6

Art

Architectural Paintings

Architectural painting, also known as architecture painting, is a genre of painting that focuses on depicting buildings, both interiors and exteriors, as its primary subject. It can involve capturing the aesthetic and functional aspects of structures, from intricate details to overall architectural design. This genre has a rich history, evolving from background elements in early paintings to a dedicated focus during the Renaissance and beyond.

Key aspects of architectural painting:

Emphasis on Architecture:
The core focus is on buildings, their forms, details, and surroundings.

Variety of Styles:
It can range from realistic representations to more abstract interpretations, reflecting different artistic movements and interpretations of architecture.

Historical Significance:
Architectural paintings can document historical buildings, urban development, and artistic styles across different eras.

Artistic Expression:
Beyond mere representation, architectural paintings can convey emotion, tell stories, and offer social commentary.

Technical Skill:
Artists specializing in architectural painting often demonstrate expertise in perspective, detail, and capturing the unique characteristics of buildings.

Modern Interpretations:
Contemporary architectural painting can explore themes of urban transformation, architectural innovation, and the relationship between humans and their built environment.

WEEK 6

Personal Development

British Values

Schools follow British values to promote fairness, respect, and equality. They help create a safe, inclusive environment where everyone can learn, grow, and feel valued, no matter their differences. The British Values are as follows:

Democracy		
Rule of Law		
Individual Liberty		
Mutual Respect		
Tolerance of Others