CLEETHORPES ACADEMY HOME LEARNING

Year 9

Autumn Term 2

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.

WEEK 1

English Literature

Act One recap:

Scene One:

Hortense Roberts – a young Jamaican girl – moves in with her wealthy uncle. Hortense grows up in a household shaped by class, colour and colonial attitudes. Hortense falls in love with her cousin, Michael. Later, Michael brings shame on the family by having an affair with a married schoolteacher. He resolves to restore honour by enlisting in the RAF.

Scene Two:

Queenie – a young British woman – moves to London from Lincolnshire to work in her aunt's shop. She meets Bernard and they enter into a loveless relationship. They marry and she moves into his home. Bernard enlists in the RAF and Queenie becomes Bernard's father's carer.

Scene Three:

Gilbert – a young Jamaican man – dreams of moving to Britain and becoming a lawyer. He is criticised for this. When he arrives, he is treated unfairly. Gilbert meets Arthur and helps him, meeting Queenie in the process. They go to the cinema together and Arthur is shot after a race riot breaks out.

Scene Four:

Hortense meets Gilbert. Gilbert tries to flirt, but Hortense is unimpressed.

WEEK 1

English Language

POINT, EVIDENCE, EXPLAIN, LINK

Point, Evidence, Explain (also known as PEE or PEEL) is a method for structuring arguments, particularly in writing, where a claim is supported by evidence and then explained to demonstrate its relevance.

- **Point:**

This is the main idea or claim you are making in a paragraph or argument. It should be a concise and clear statement that directly addresses the topic or question.

- **Evidence:**

This involves providing factual information, examples, data, or quotes to support your point. The evidence should be relevant and credible, backing up your claim.

- **Explanation:**

This is where you connect the evidence back to your point, explaining how the evidence supports your claim and why it is significant. It demonstrates the relevance of the evidence and strengthens your overall argument.
In simpler terms:

1. **Say what you mean:** State your point clearly.
2. **Show me:** Provide evidence to back it up.
3. **Explain why:** Explain how the evidence supports your point.

Example:

- **Point:**

"The author effectively uses vivid imagery to create a sense of unease in the reader."

- **Evidence:**

"For example, the description of the 'dark, swirling fog' and the 'eerie silence' creates a feeling of suspense."

- **Explanation:**

"The use of these sensory details, focusing on darkness and silence, contributes to the overall atmosphere of unease, making the reader feel apprehensive about what might happen next."

Write down everything you can remember about writing a successful PEEL paragraph.

WEEK 1

Mathematics

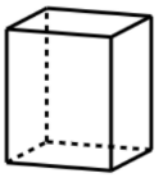
3D Shapes

Useful definitions:

Key Vocabulary	Definition
Cube	A cube is a three-dimensional shape with six square faces, where all sides are of equal length.
Cuboid	A cuboid is a three-dimensional shape with six rectangular faces.
Cylinder	A cylinder is a three-dimensional shape with two parallel circular bases connected by a curved surface.
Sphere	A sphere is a perfectly round three-dimensional shape where all points on its surface are equidistant from the centre.
Tetrahedron	A tetradron is a three-dimensional shape is also known as a triangular pyramid, that has four triangular faces, size edges and four vertices.

Diagrams:

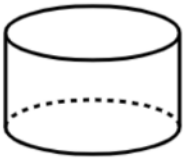
Write down the mathematical name of each solid.

a) 

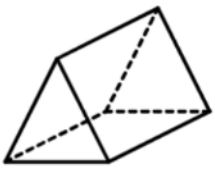
Cuboid

b) 

[Square-based] **Pyramid**

c) 

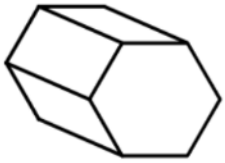
Cylinder

d) 

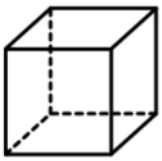
[Triangular] **Prism**

e) 

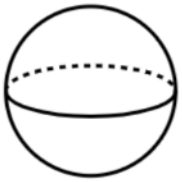
Cone

f) 

[Hexagonal] **Prism**

g) 

Cube

h) 

Sphere

WEEK 1

Biology



Rosalind Franklin

There is probably no other woman scientist with as much controversy surrounding her life and work as ***Rosalind Franklin***. She was responsible for much of the research and discovery work that led to the understanding of the ***structure of DNA***. The story of DNA is a tale of competition and intrigue with two sides.

Franklin was born in London on 25 July 1920. She was excellent at science and attended one of the few girls' schools in London that taught physics and chemistry. When she was 15 she decided to become a scientist. Her father was against higher education for women but in the end gave in. In 1938, she enrolled at Newnham College, Cambridge, graduating in 1941. In 1945 she achieved a doctorate in physical chemistry.

After Cambridge, she spent three years in Paris at the Laboratoire Central des Services Chimiques de L'Etat, where she learned about X-rays. In 1951, she returned to England as a researcher at King's College, Cambridge. It was here that she met ***Maurice Wilkins***. She and Wilkins led separate research groups and had separate projects, which were both about DNA. When Franklin was given responsibility for the DNA project, no one had worked on it for months. Wilkins was away at the time, and when he came back he thought she was only a technical assistant. Wilkins and Franklin were actually equal in status. He apologised for his mistake but he still treated her as an assistant. This was not surprising since it was a very male climate: for example, only men were allowed in the university dining rooms.

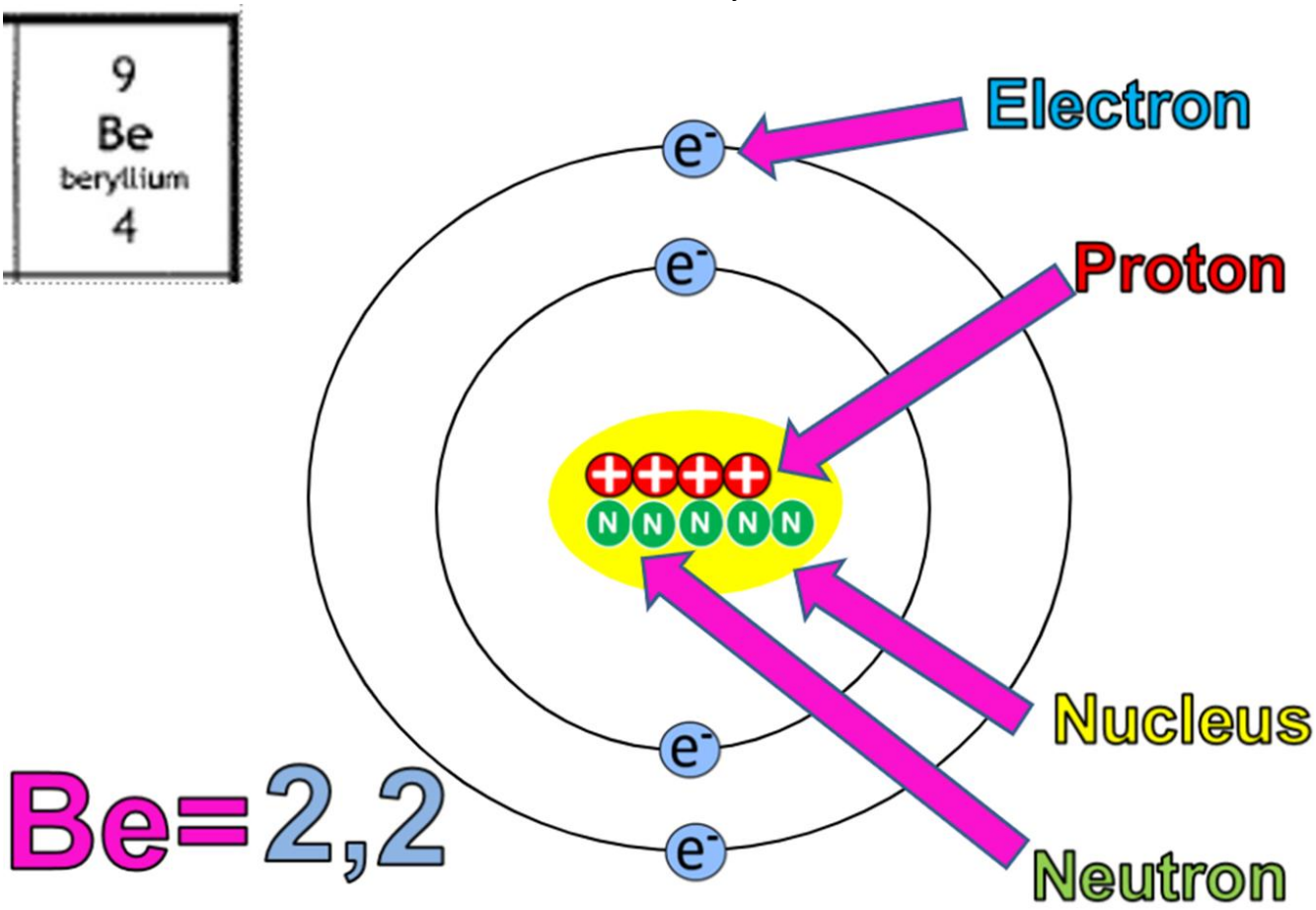
Franklin kept on with her DNA project. The X-ray photographs she took of the DNA structure were described as beautiful. Between 1951 and 1953 Rosalind Franklin came very close to solving the DNA structure. Wilkins showed ***James Watson*** one of Franklin's pictures of DNA. When he saw the picture he then knew the answer to the structure of DNA and he wrote an article almost immediately. Franklin's work was not mentioned in the article.

A debate about the amount of credit due to Franklin continues. She did have a role in learning the structure of DNA and she was an excellent scientist. In 1962, James Watson, Francis Crick and Maurice Wilkins received a Nobel Prize for their model of the structure of DNA. However, four years before, Franklin had died from ovarian cancer at the age of 37.

(Extract taken from www.sdsc.edu 2000)

WEEK 1

Chemistry



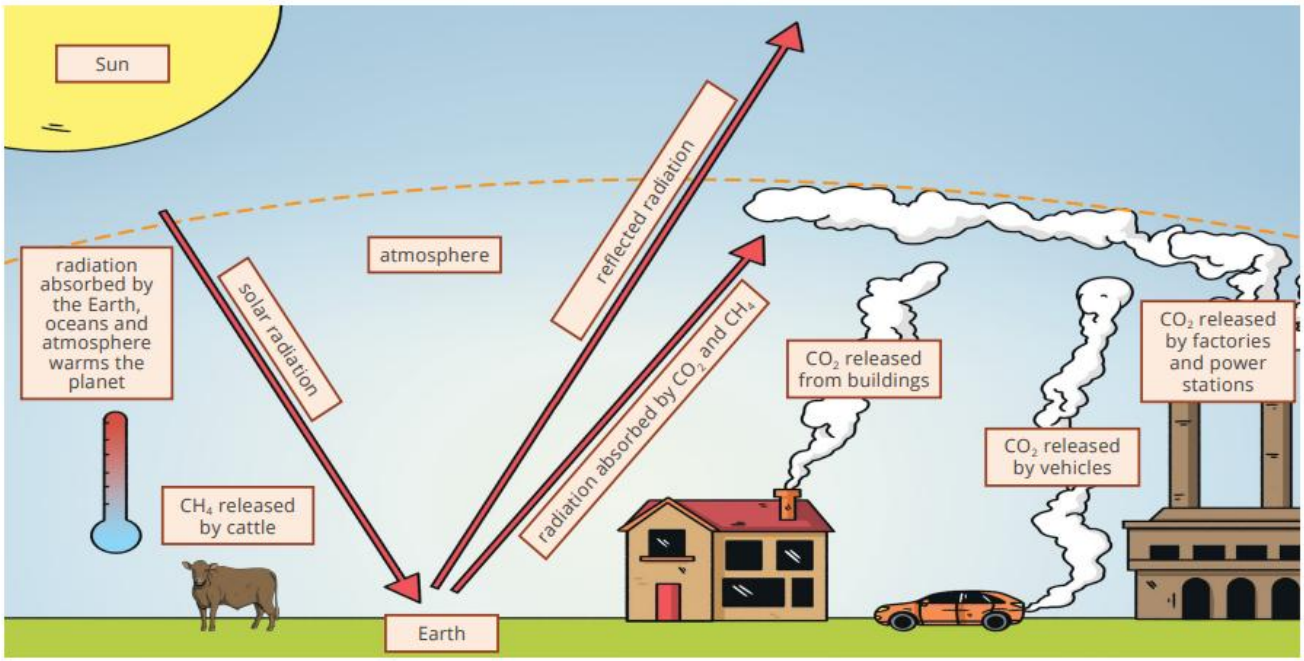
WEEK 1

Physics

The Greenhouse effect

Radiation from the Sun reaches the Earth's surface. Some of this radiation is reflected back into space, but some of it is absorbed by the Earth, the oceans and the atmosphere. This helps to keep our planet warm enough to sustain living creatures.

Greenhouse gases (carbon dioxide, water vapour and methane) in the atmosphere absorb reflected radiation. The more greenhouse gas there is in the atmosphere, the more radiation is absorbed. This causes the temperature of the atmosphere to increase further (**global warming**).



WEEK 1

History

Key terms and definitions

Persecution: The act of pursuing or harassing someone continuously, often with the intent to harm, oppress, or discriminate.

Anti-Semitism: A certain perception of Jews, which may be expressed as hatred toward Jews.

Refugee: A person who has received refuge (safety).

Perpetrator: A person who carries out a harmful act.

Bystander: A person who is present/aware of an incident but does not take part.

Victim: A person harmed as a result of an incident.

Resistor: A person who stands up against the incident.

Liberation: The process of becoming free.

Justice: The state or quality of being just (fair).

WEEK 1

Geography

What are the challenges and opportunities in Africa?

We are all connected to Africa. Between 1 and 2 million years ago the first species of humans evolved in Africa and eventually spread around the world.

Africa is the second largest continent in the world, by area and population; home to 1.4 billion people in 54 countries, speaking 2,000 different languages. Africa is rich in natural resources. But the continent is often viewed in a stereotypical way by other parts of the world.

While Africa does indeed face enormous challenges, not every African is in need, nor is every African nation in crisis.

Country	Country
Algeria	Libya
Angola	Madagascar
Benin	Malawi
Botswana	Mali
Burkina Faso	Mauritania
Burundi	Mauritius
Cabo Verde (Cape Verde)	Morocco
Cameroon	Mozambique
Central African Republic	Namibia
Chad	Niger
Comoros	Nigeria
Democratic Republic of the Congo	Republic of the Congo
Djibouti	Rwanda
Egypt	São Tomé and Príncipe
Equatorial Guinea	Senegal
Eritrea	Seychelles
Eswatini	Sierra Leone
Ethiopia	Somalia
Gabon	South Africa
The Gambia	South Sudan
Ghana	Sudan
Guinea	Tanzania
Guinea-Bissau	Togo
Ivory Coast (Côte d'Ivoire)	Tunisia
Kenya	Uganda
Lesotho	Zambia
Liberia	Zimbabwe

Note: The African Union has 55 member states because it also includes the Sahrawi Arab Democratic Republic (Western Sahara), whose sovereignty is disputed. This is why some lists of African countries include 55 rather than 54.

WEEK 1

Spanish

Personality	
responsable	responsable
estúpido	stupid
paciente	patient
impaciente	impatient
estresante	stressful
egoísta	selfish
pesimista	pessimistic
arrogante	arrogant
serio/a	serious
sincero/a	sincere
optimista	optimistic
generoso/a	generous
extrovertido	extroverted
inteligente	intelligent
siempre	always
a menudo	often
normalmente	normally
a veces	sometimes
de vez en cuando	from time to time
nunca	never
soy	I am
no soy	I am not
puedo ser	I can be
muy	very
bastante	quite
demasiado	too
un poco	a bit

WEEK 1

Art

Art Deco

Art Deco architecture is a luxurious, modern style from the 1920s-30s, characterized by bold geometric forms, verticality, and a fusion of industrial materials like chrome with opulent elements like intricate patterns, stylized ornament, and luxurious materials such as terra cotta, and glass. Originating in France and flourishing in the U.S., it symbolized modernity and sophistication through its sleek designs and iconic skyscrapers like the Empire State Building.

Key Characteristics

- **Geometric & Streamlined Forms:**

Buildings feature sleek, geometric shapes, stylized patterns, zigzags, and chevrons.

- **Vertical Emphasis:**

Strong vertical lines, often seen in skyscraper design, give buildings a sense of height and grandeur.

- **Stepped Forms (Setbacks):**

Towers often have a ziggurat-like stepped-back form, which is both decorative and functional, allowing more light and reducing wind resistance.

- **Luxurious Materials:**

Architects used a mix of modern and natural materials, including chrome, steel, glass, terra cotta, aluminium, marble, and exotic woods.

- **Stylized Ornamentation:**

Decoration often includes stylized floral motifs, sunbursts, and elements inspired by ancient cultures like Egypt.





In Cleethorpes

The most prominent example of Art Deco architecture in Cleethorpes is the former Fancy dress shop, Twinkles, on Grimsby Road, built in 1937 and designed by Borough Engineer Leonard Pye. This building is considered one of the best surviving examples of the style in the Humber region. Other Art Deco-style elements can be seen at the Cleethorpes Wonderland amusement complex on the North Promenade, particularly the cinema-style tower.





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 1

RE

Religious views on creation

Christianity, Judaism, and Islam

God created the entire universe out of nothing.

In the biblical account (found in the book of Genesis and shared similarly in Judaism and Christianity), God speaks the universe into existence over six days. God creates light, sky, land, plants, stars, animals, and finally humans (Adam and Eve) in His own image. On the seventh day, God rests. In Islam, the Quran also describes God creating the heavens and the Earth in six periods or "days," establishing order, purpose, and balance in nature.

Hinduism

The universe goes through endless cycles of creation, preservation, and destruction.

One famous story describes the god Brahma as the creator. Brahma is born from a lotus flower that grows out of the navel of the preserver god, Vishnu, while Vishnu sleeps on a cosmic ocean. Once born, Brahma uses his powers to shape the universe and all living things. After a vast amount of time, another god, Shiva, destroys the universe so that Brahma can recreate it in a fresh cycle.

WEEK 2

English Literature

Act One recap part two:

Scene Five:

Queenie tries to determine Bernard's whereabouts and finds out he is missing, presumed dead.

Scene Six:

Hortense and Gilbert are reintroduced – Gilbert is the mystery boyfriend of her friend Celia. Celia brags that her and Gilbert will soon be moving to Britain.

Scene Seven:

Michael and Queenie are reunited with Michael needing a room before setting sail for Canada. Michael and Queenie end up sleeping together. Meanwhile, Hortense – desperate to leave Jamaica for Britain – proposes that her and Gilbert marry and that she eventually join him after he has moved. Gilbert is taken aback but eventually agrees.

Scene Eight:

Gilbert sets sail on the Empire Windrush. Hortense makes him promise not to forget about her. Meanwhile, Queenie discovers that she is pregnant with Michael's baby.

WEEK 2

English Language

Key Vocabulary	Definition
Inference	A conclusion reached on the basis of evidence and reasoning; reading between the lines. Exploring what has been implied/suggested.
Analyse	Examine writers' methods in detail and explain and interpret their intention and meaning.
Evaluate	To form an opinion, judge and assess the writer's methods and how they want you, as a reader, to think and feel towards their writing. Carefully analyse and judge the significance of the writer's methods.
Summarise	A brief overview of the main points of a text/information.
Connotations	An idea, emotion, response that a word or method creates for a reader; in addition to its literal meaning.

WEEK 2

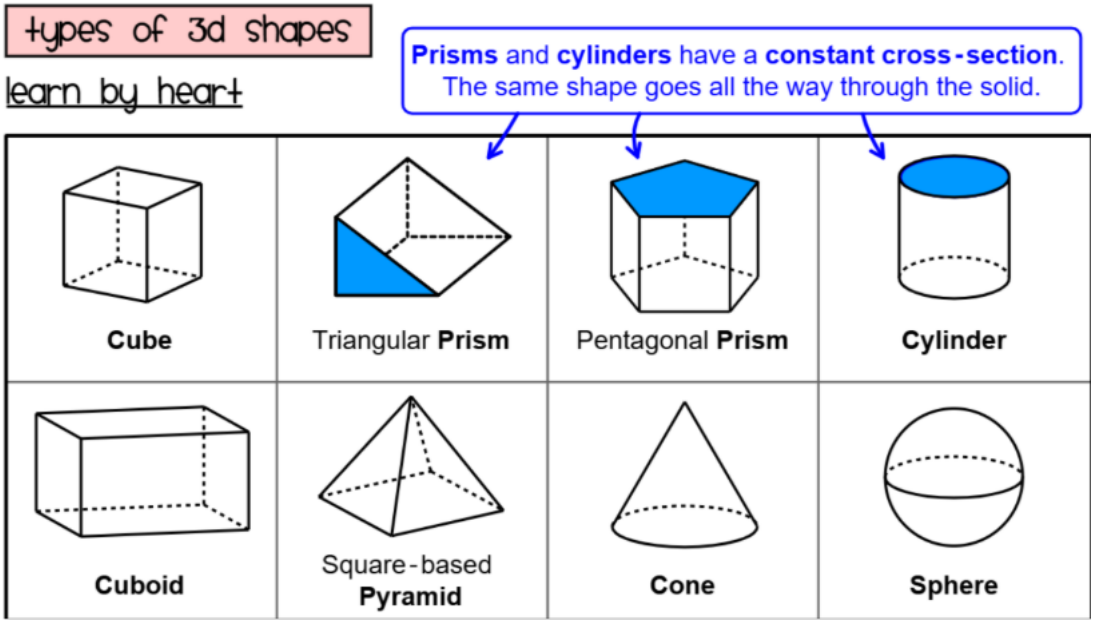
Mathematics

Shapes

Useful definitions:

Key Vocabulary	Definition
Three Dimensional Shapes	Is a solid shape that has three dimensions, length, width and height.
Two Dimensional Shapes	Two-dimensional shapes are completely flat. They have two dimensions, length and width.
Perimeter	The perimeter is the distance around the outside of a two-dimensional shape
Prism	A prism is a three-dimensional shape with a constant cross-section throughout its length.
Pyramid	A three-dimensional shape that meets at a point (apex)

Diagrams:



WEEK 2

Biology

Extracting DNA

You will need:

Stage 1.

In this stage, you are going to break into the kiwi fruit cells and free the DNA from the nucleus.

1. Get a beaker of kiwi pulp
2. Pour 10 ml of cell lysis solution into a measuring cylinder
3. Put a thumb level of kiwi pulp into a test tube using a pipette
4. Pour the cell lysis solution into the test tube with the kiwi in (Put the same amount of solution in as there is kiwi).
5. Place the test tube into a water bath at 60°C for 15 minutes. Stir the liquid using a glass rod every two minutes.

Stage 2.

1. After 15 minutes, move your test tube into the ice bath and let it cool for five minutes. Stir gently with a glass rod every minute.
2. Whilst the mixture is cooling, set up a filter by adding filter paper into the funnel and place it over a boiling tube.
3. Once the liquid is cooled, filter it through the funnel. It will take approximately five minutes to filter $5cm^3$ of the mixture, the mixture must be left alone to filter slowly.

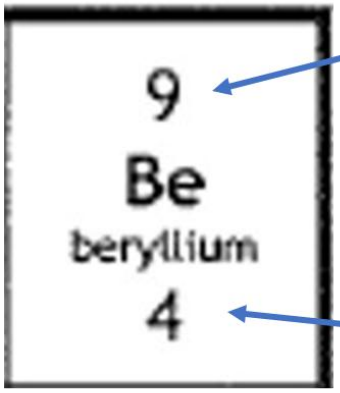
Stage 3.

The DNA is in the filtrate, however, it cannot be seen yet. This stage allows you to see the DNA, it is called precipitating the DNA.

1. Add $5cm^3$ of the filtered liquid to a test tube.
2. Measure out $5cm^3$ of cold ethanol into a measuring cylinder.
3. Gently add a layer of cold ethanol on top of the filtrate. Use a pipette to run the ethanol slowly down the walls of the test tube so that it sits in a layer on top of the filtered liquid. It is very important that the lower layer is not disrupted.
4. Place the test tube into a test tube rack. Observe what happens at the area where the ethanol and filtrate layers meet.
5. Leave the solution to sit for two minutes. A white precipitate (a thick cloudy layer) will form in the alcohol layer. This is the DNA.
6. Use the metal hook to try to extract the DNA.

WEEK 2

Chemistry



Atomic mass = number of protons + neutrons

Atomic number = number of protons

Number of neutrons = atomic mass – atomic number

Number of electrons = number of protons

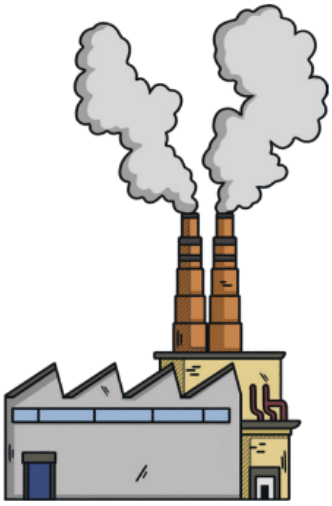
Particle	Mass	Charge
proton	1	+1
neutron	1	0
electron	almost 0	-1

WEEK 2

Physics

Human Impact on Earth's Climate

Natural cycles in the Earth's orbit and rotation patterns can cause changes in global temperatures and weather patterns. However, most scientists agree that human activities are causing an increase in greenhouse gases in the atmosphere and that this is accelerating **climate change**.



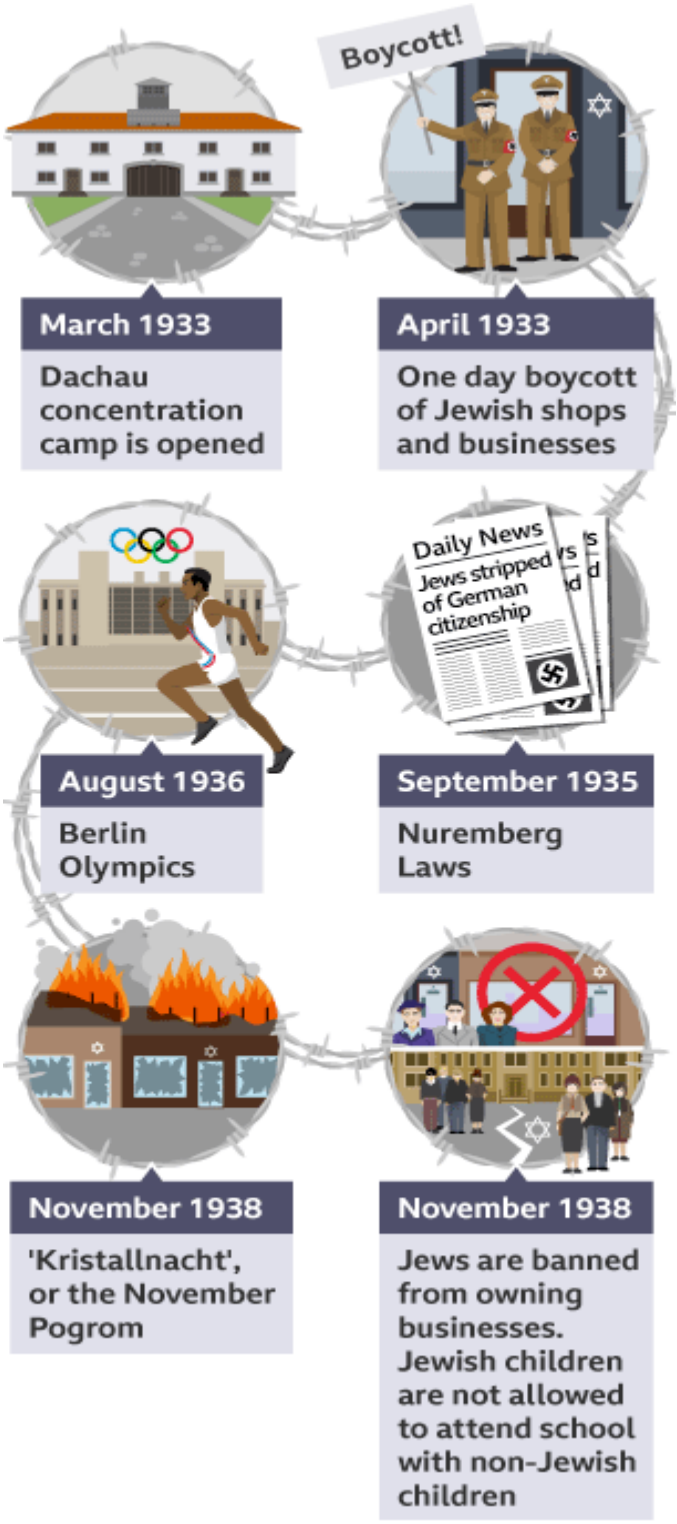
Human activities that increase greenhouse gas levels include:

- **burning fossil fuels** – this releases carbon dioxide
- **deforestation** – this reduces the absorption of carbon dioxide from the atmosphere by trees for photosynthesis
- **disposing of waste in landfill sites** – this releases methane into the atmosphere
- **cattle farming** – cattle release large volumes of methane

WEEK 2

History

Persecution in Nazi Germany



WEEK 2

Geography

'The Scramble for Africa'

As the Industrial Revolution developed in Europe, nations and many individuals were keen to exploit the abundant natural resources and free labour of Africa 'discovered' by explorers.

The new wealth of Europe also created a sense of superiority so many colonialists believed they were 'bringing civilisation to a savage people'.

As the 'Scramble for Africa' got underway, it increased tension among the European imperialist nations, as they argued over new territories.



WEEK 2

Spanish

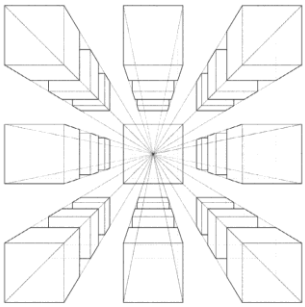
What would you like to be like?	
antipático/a	unfriendly
simpático/a	nice
hablador/a	talkative
trabajador/a	hard-working
perezoso/a	lazy
tonto/a	silly
travieso/a	naughty
abierto/a	open-minded
positivo/a	positive
alegre	cheerful
agradable	pleasant
amable	kind
me gustaría ser	I would like to be
me encantaría ser	I would love to be
quisiera ser	I would like to be
más	more
menos	less

WEEK 2

Art

Linear Line & Abi Daker

Linear line art can refer to two main concepts: line art, which uses only lines to create images without shading or colour, and linear perspective, a drawing system that creates the illusion of depth on a flat surface.





Abi Daker

ABI DAKER is a British illustrator who lives and works in Cyprus with her husband and son. She studied Art at the University of Reading and has since worked on children's books and as an archaeological illustrator; she also specialises in illustrated maps and architectural subjects. Daker's work is in creating unique, hand rendered artwork for her clients. Abi's attention to detail and strong drawing technique means that her work is ideally suited to creating illustrated maps, panoramic cityscapes and perspective drawings. Previous commissions have included large scale graphics for vinyl wall applications and window displays, a series of wine labels and a variety of editorial and literary projects. Initial pieces are sketched in pencils and gone over with pen and ink. They are usually at a large scale, therefor, often sold as a digital copy.





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 2

RE

Immortality

Is the idea of eternal life.

There are different beliefs about what it means, what part of use may be immortal and where it might be lived. Some people believe our soul will survive in our physical body, others believe our soul is immortal and will leave our physical body and some believe it is our mind that is immortal. Many religions say immortality will happen in heaven or hell. Others think there are immortals who live on Earth

WEEK 3

English Literature

Key themes of the text:

A theme is a recurring idea throughout an entire text. Key themes of 'Small Island' are:

Colonialism:

How Jamaican culture is considered inferior to the coloniser's (Britain's) culture and how the Windrush Generation are viewed as 'other'.

Gender:

The expectations placed on people due to their gender. For example, why Bernard's decision to enlist in the RAF or the expectations on Queenie to be a homemaker.

Belonging:

Characters who struggle to feel at home, feeling out-of-place as a result.

Love and relationships:

The main relationships in the text concern convenience, but what would a character view as an ideal relationship? What do they consider love to be?

Expectations versus reality:

This could come in many forms, such as Hortense arriving at Gilbert's lodgings or Queenie's expectations of a proper romantic connection.

WEEK 3

English Language

Tales from Auschwitz: survivor stories

Imagine it like this: three generations of your family have lived in the same house in the same town. They've struggled to raise a family, put kids through school, to feed them all. You have your friends and family. All of a sudden you are told to leave it all and walk out with a single suitcase.

I remember the night of the packing very well. Things went in the suitcase, things were taken out of the suitcase. In the end my mother filled it with food she had cooked and warm clothing and bedding. Then it was full. Plus we took a watch, some earrings, a wedding ring with us to exchange for food if necessary. The next day my father was forced to hand over his remaining money to a delegation that included the mayor and the school principal as they rounded us up at the town hall.

We had been absolutely unaware of such a place as Auschwitz. It was a stunning reversal of the life we had had up until then. And I cannot emphasise enough how utterly scary it is to be at the mercy of your fellow human beings. As a child I could not understand what we had done to deserve going there.

My father surveyed the scene from the train and could see prisoners, uniforms and barracks so we immediately thought it was a work camp, and that was reassuring – if we can work, it can't be such a dreadful place. We had heard about the stories in Poland of lots of mass shootings of Jews or people being taken into the forest and shot, so it was a relief to see out the window that there was actually a system. Even though we were victims of discrimination at that stage that's all it was, as we had no clue then that this was a very carefully orchestrated plan of genocide. We could not have imagined that they would kill little children, until we realised that killing children was their primary goal to prevent any new generations. Because desperate people will always look to find some sign of hope, we thought to ourselves even if we have to work, at least we'll see each other occasionally.

But the German system was full of this sort of deception. It counted on people's normal perception of things. Thinking we were going to a work camp. Thinking that you were going to take a shower when in fact you were going to the gas chambers – that was the ultimate deceit.

Our family was torn apart on the platform on arriving. My sister, Serena, was chosen for slave labour. My mother and the younger children were sent off to one side and my father and 16-year-old brother to the other side. I held tightly on to the hand of my 12-year-old sister and for an instant I was mistaken for being older than I was, probably because I was wearing a headscarf that my mother had given me.

Tales from Auschwitz: survivor stories | Holocaust | The Guardian

WEEK 3

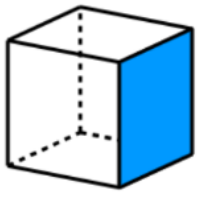
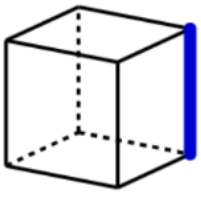
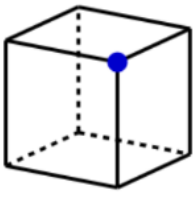
Mathematics

Shapes

Useful definitions:

Key Vocabulary	Definition
Polygon	A two-dimensional shape with three of more straight sides that meet at vertices.
Cross Section	The shape you get when you slice through the prism parallel to its end.
Face	A face is a flat surface.
Edge	An edge is where two faces meet on a three-dimensional shape.
Vertices	Vertices are the corners where edges meet, at a point.

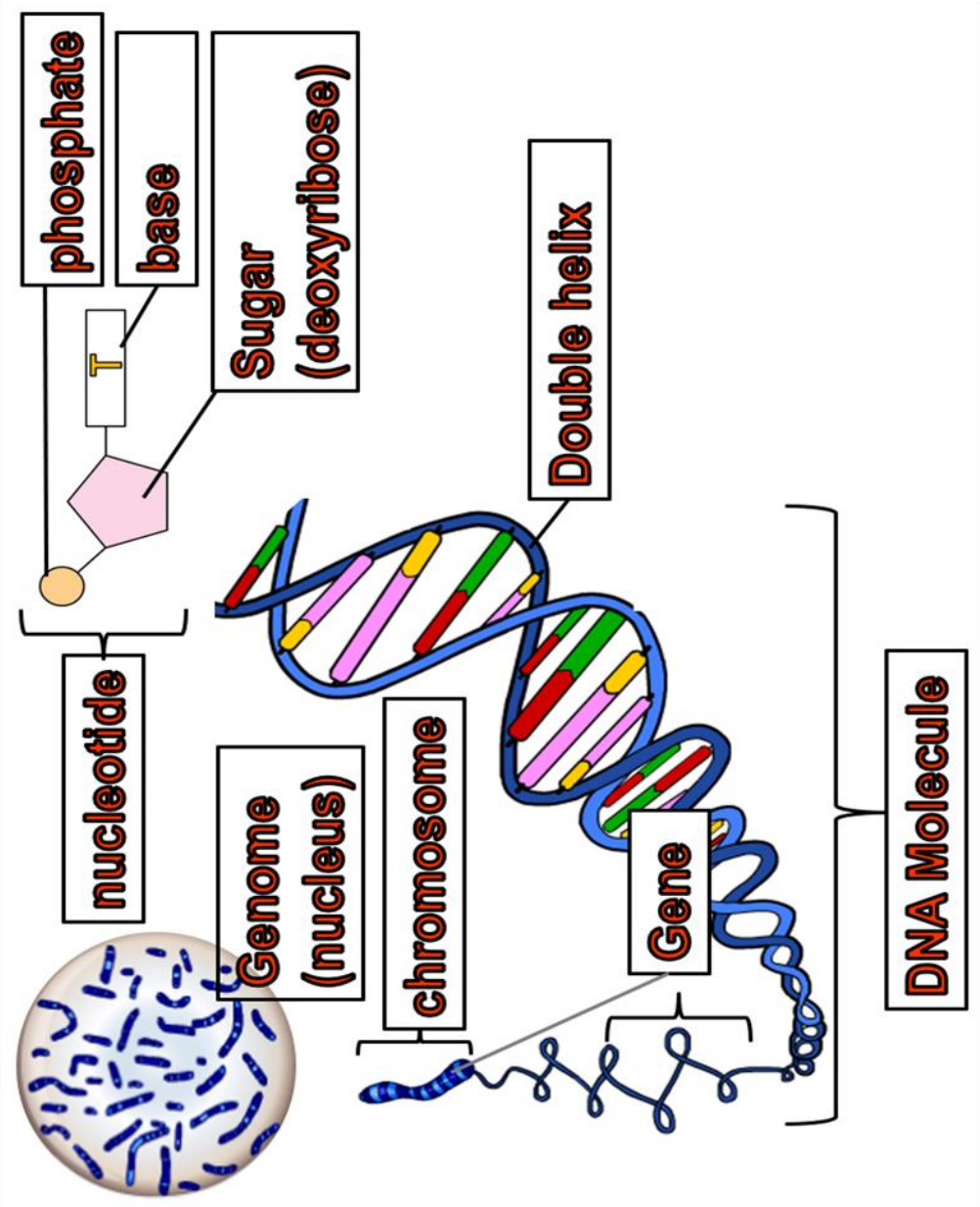
Diagrams:

Face	Edge	Vertex
		
A flat or curved surface on a 3D shape	The line where two faces meet	A corner where edges meet *(plural:* ***vertices****)*

WEEK 3

Biology

Inside the nucleus



WEEK 3

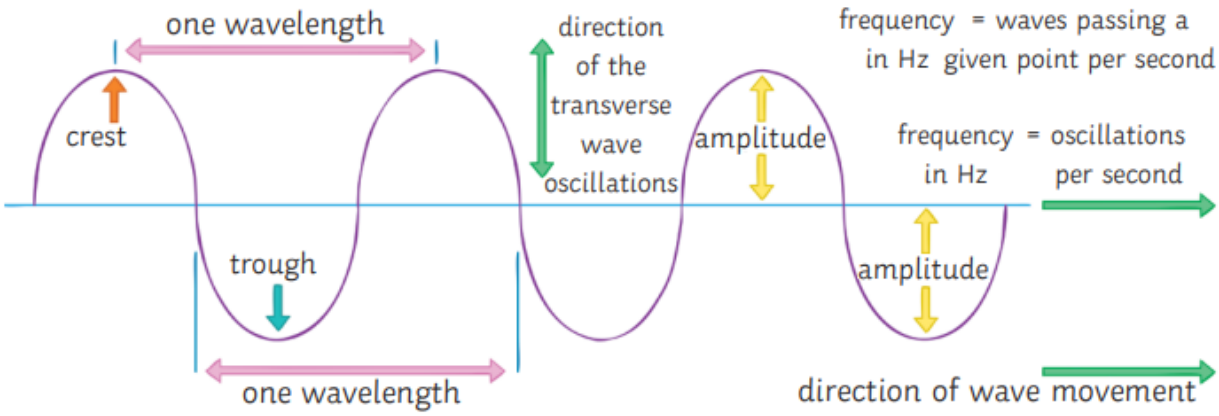
Chemistry

Element	Symbol	Atomic (Proton) Number	Relative Atomic Mass (R.A.M)	Number of Protons	Number of Electrons	Number of Neutrons
Hydrogen	H	1	1	1	1	0
Helium	He	2	4	2	2	2
Lithium	Li	3	7	3	3	4
Beryllium	Be	4	9	4	4	5
Boron	B	5	11	5	5	6
Carbon	C	6	12	6	6	6
Nitrogen	N	7	14	7	7	7
Oxygen	O	8	16	8	8	8
Fluorine	F	9	19	9	9	10
Neon	Ne	10	20	10	10	10

WEEK 3

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)

$v = f \times \lambda$

WEEK 3

History

Kindertransport

Who? Approximately 10, 000 mostly Jewish children
When? November 1938 - September 1939
Where? From Nazi occupied territories to England
What? A scheme for children to leave their homes and families and seek temporary refuge in Britain. Most of the children had guarantors who they had some form of connection to that they would stay with. They travelled to England on trains.

WEEK 3

Geography

Is the western view of poverty in Africa a single story view?

A negative image of Africa in the UK is harming efforts to raise food aid in the continent, charity Oxfam has said.

It found that three out of four people had become desensitised to images showing hunger, drought and disease.

Three-quarters thought it was possible to end hunger in Africa, but just one in five believed they could play an active role in achieving it.

Of the more than 2,000 people surveyed, almost half suggested hunger as the biggest problem facing Africa.

Respondents to the survey said over-exposure to negative media and advertising portrayals of Africa and developing countries in other parts of the world was "depressing, manipulative and hopeless".

Upper	Middle	Low
Algeria	Cameroon	All other African countries
Angola	Congo	
Botswana	Egypt	
Libya	Ghana	
Namibia	Ivory Coast	
South Africa	Kenya	
	Mauritania	
	Morocco	
	Nigeria	
	Sudan	
	eSwatini	
	Zambia	

WEEK 3

Spanish

Physical descriptions	
alto/a	tall
bajo/a	short
guapo/a	handsome/attractive
feo/a	ugly
delgado/a	thin
gordo/a	fat
calvo	bald
tengo	I have
el pelo	hair
moreno/a	dark
rubio/a	blonde
pelirrojo/a	red/ginger
castaño	chestnut brown
negro	black
largo	long
corto	short
rizado	curly
ondulado	wavy
liso	liso
de punta	spikes
los ojos azules	blue eyes
los ojos marrones	brown eyes
los ojos verdes	green eyes
los ojos avellana	hazel eyes
los ojos grises	grey eyes
pecas	freckles
flequillo	a fringe
un tatuaje	a tattoo
llevo	I wear
gafas	glasses
pendientes	earrings

WEEK 3

Art

Ian Murphy & Mixed Media

In visual art, mixed media describes artwork in which more than one medium or material has been employed. Assemblages, collages, and sculpture are three common examples of art using different media. Materials used to create mixed media art include, but are not limited to, paint, cloth, paper, wood and found objects.

Ian Murphy

Ian Murphy is a contemporary British fine artist known for his evocative, mixed-media drawings and paintings of architectural and natural environments. He is particularly focused on showing the "beauty in imperfections" and the effects of decay and neglect on structures around the world.

Artistic style and techniques

Murphy's work is characterized by the following:

- **Mixed media:** He uses a wide range of materials, including oils, graphite, charcoal, and various papers, to create rich, layered textures.
- **Layering and impasto:** He builds up multiple layers of material to add depth and uses thick applications of paint, or impasto, for textural effects.
- **Limited palette:** His work often features a restricted colour scheme, focusing on a neutral palette of earthy and muted tones to create a moody, atmospheric quality.
- **Emphasis on tone and light:** He skilfully manipulates light and shadow to create dramatic contrasts that enhance architectural features and evoke a sense of mystery.
- **Romanticism:** His art is rooted in the traditions of Romanticism, finding a poetic and spiritual quality in deteriorating and forgotten places.







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 3

RE

Idea	Description
Argument from design	The world is so complex it must have had a designer.
Argument from first	Every event has a cause, the universe is an event so must have been caused by something.
Argument from morality	Everyone has a shared sense of right and wrong so someone must have given everyone that shared sense.
Big Bang	The universe was created from a singularity that expanded outward and cooled. It is still stretching to this day.
Evolution	The natural process whereby the best-adapted individuals survive longer, have more offspring and thereby spread their characteristics. (‘Survival of the fittest'.)
Golden Rule	Treat others how you want to be treated.
Immortality	Is the idea of eternal life.

WEEK 4

English Literature

The Blitz is the name given to the night-time bomb attacks carried out by Germany against London and other cities in the United Kingdom during World War II (1939–45). The most destructive bombing period occurred between September 1940 and May 1941 after the German Air Force had failed to take control of the airways above Britain in the first year of the war. The Blitz as it came to be called resulted in the deaths of 43,000 British civilians and injuries to 139,000 more. The bomb attacks also destroyed houses, factories, shops, and many other buildings but had little impact on Britain's ability to wage war.

The word "blitz" is taken from the German word for lightning. German aircraft flew over the United Kingdom at night and were initially difficult to counter. Britain did not have the anti-aircraft weaponry or fighter pilots with the night-flying experience needed to counter the bombers. London was hit by 76 days of consecutive bombing during the first months of the Blitz. The German bombers then began targeting other cities. An attack on Coventry was particularly devastating. The attack killed 380 people and injured 865 more. The city's historic centre was also destroyed. The death and destruction in the British cities brought home the reality of the war to the British people and illustrated the total nature of modern warfare. Even those at home or hundreds of miles away from the front were no longer safe.

The Blitz prompted a large-scale reaction from the British public. Families constructed bomb shelters in their back gardens or gathered in underground train stations to shelter whenever they heard the air raid sirens. Families and neighbours sorted through the rubble of destroyed buildings in a community effort to preserve whatever they could. The collective public response fostered a combative spirit in the British public, and the stoicism of those enduring the Blitz became a hallmark of international news reports which suggested that the bombing raids would not be enough to break the British spirit in the fight against Germany. The British response to the Blitz continued to improve. Better aircraft, better air defence, and the proliferation of electromagnetic sensor technology such as radar made it easier to repel the enemy aircraft. The Blitz was effectively ended in 1941 when the Germans refocused their war effort on an invasion of the Soviet Union.

The characters in Small Island are directly affected by the Blitz. Queenie and Bernard Bligh live in London during the attacks. They cower from the bombs in their homemade shelter, and Queenie volunteers in an emergency centre that serves people who have lost their homes and possessions. Gilbert and Hortense arrive in a Britain that is rebuilding in the aftermath of the devastating attacks.

WEEK 4

English Language

Our Protected Characteristics

Protected characteristics are the nine aspects of a person's identity that are protected from discrimination under the Equality Act 2010. These include age, disability, gender reassignment, marriage and civil partnership, pregnancy and maternity, race, religion or belief, sex, and sexual orientation. Discrimination on these grounds is unlawful in areas like employment, education, and public services.

- **Age:** Protection from discrimination based on age applies to people of all ages.
- **Disability:** Includes any physical or mental impairment that has a substantial and long-term effect on a person's ability to carry out normal day-to-day activities.
- **Gender reassignment:** Protects people who are proposing to undergo, are undergoing, or have undergone a process (or part of a process) for the purpose of reassigning their sex.
- **Marriage and civil partnership:** Protects people who are married or in a civil partnership.
- **Pregnancy and maternity:** Covers protection for women who are pregnant or on maternity leave.
- **Race:** This includes colour, nationality, ethnic, or national origins.
- **Religion or belief:** This covers all major religions, as well as non-religious beliefs and lack of belief.
- **Sex:** The protection of men and women.
- **Sexual orientation:** Covers a person's sexual attraction towards others.

Write down everything you can remember from the information above.

WEEK 4

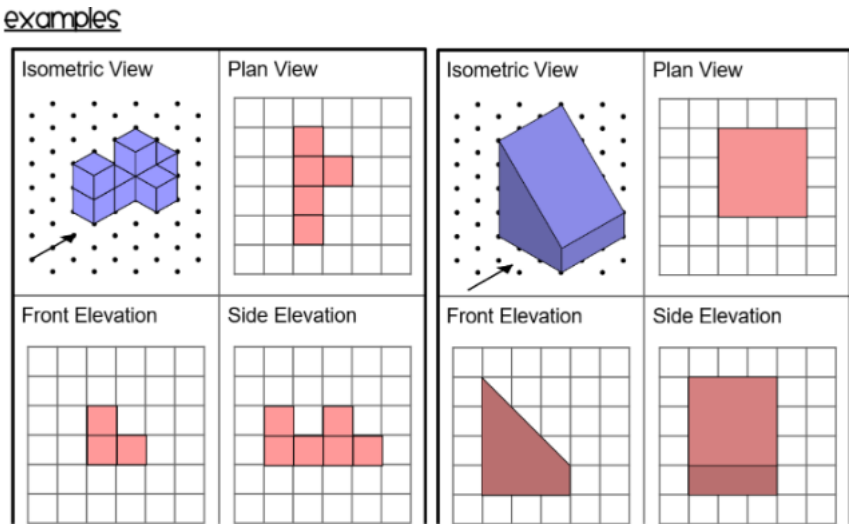
Mathematics

Plan and Elevations

Useful definitions:

Key Vocabulary	Definition
Plan	The view from the top is called the plan.
Front Elevation	The view from the front is called the front elevation.
Side Elevation	The view from the side is called the side elevation.
Perspective	The perspective view of a three-dimensional shape is a way of representing is on a two-dimensional surface (like paper).
Isometric paper	Isometric paper helps to visualize three-dimensional shapes by representing them on a two-dimension surface.

Diagrams:



WEEK 4

Biology

The four bases

Base pairs hold the two strands of the DNA helix together. The rules for base pairing are…

A always pairs with T

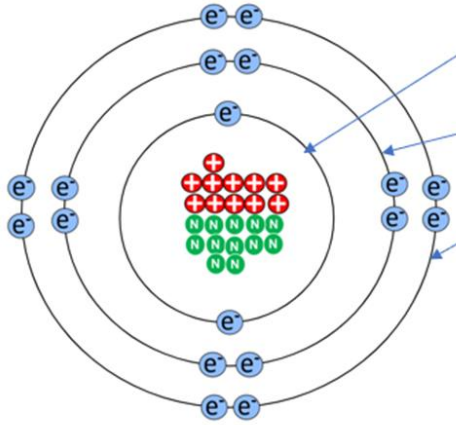


C always pairs with G



WEEK 4

Chemistry

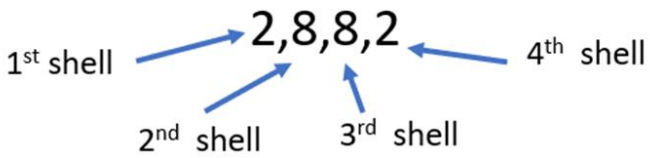


Maximum 2 electrons in the first shell

Maximum 8 electrons in the second shell

Maximum 8 electrons in the third shell

- The innermost shells must be completed before electrons can start filling up the next shell.
- Each shell cannot hold more electrons than its maximum
- The total number of electrons is equal to the total number of protons
- Electron configuration can be written in shorthand:



WEEK 4

Physics

Sound Waves in Different Medium

How quickly sound waves can travel through a medium is determined by the **density** of the medium (material).

Sound waves will travel faster through a solid than a liquid as the spaces between the particles are smaller. This means that the **vibrations** and **energy** can be passed along the particles more quickly. In a gas, the transmission of sound is even slower as the space between the particles is greater.

The speed of sound in air is 330m/s.

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.

WEEK 4

History

Ghettos

Who? Jews in Nazi occupied territories.
When? First ghetto established in Poland in October 1939
What? Ghettos were enclosed districts within towns and cities that isolated Jews from the non-Jewish population. They were meant to be temporary, in many places they only lasted a few days or weeks, others later years. The living conditions were dreadful many people died from disease, starvation or shooting in the ghettos. Others would be deported to extermination camps

WEEK 4

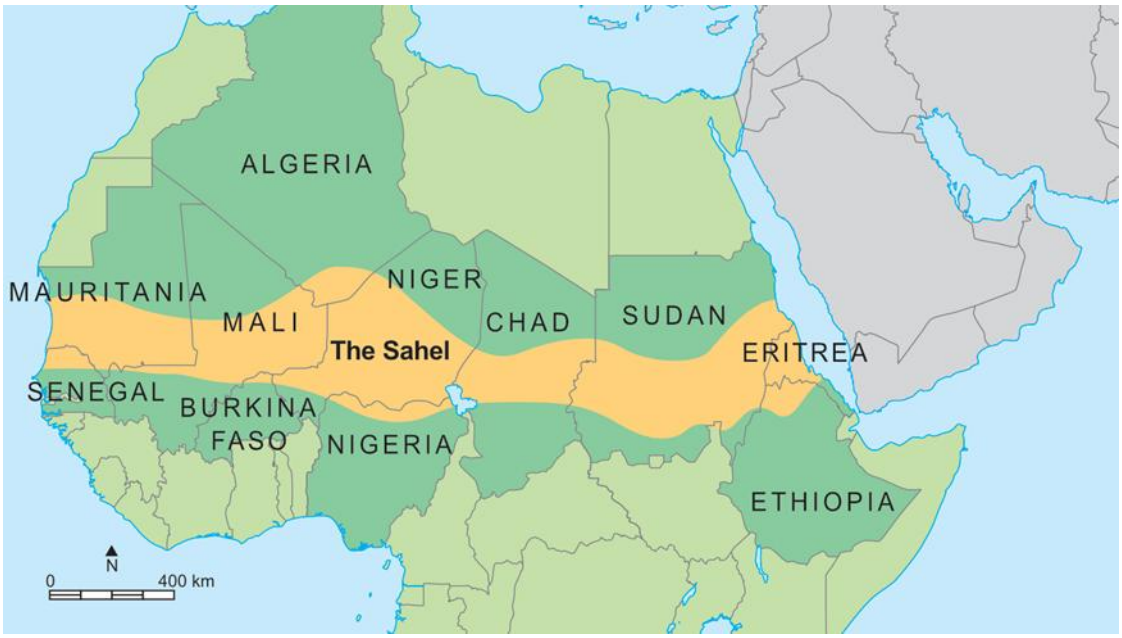
Geography

The Sahel

Unfortunately, the Sahel is extremely vulnerable to drought and famine. A drought is a period of abnormally dry weather that leads to a serious lack of water and crop failure. As a result, all the countries in the Sahel, except Nigeria, are designated Least Developed Countries by the UN.

Desertification in the Sahel

As you can see in the graph below, rains are very erratic in the Sahel. The population is increasing rapidly and too many people have cleared the vegetation for firewood, shelter and farming. Livestock have also overgrazed the vegetation. The removal of vegetation exposes soil to wind and water erosion. All of these things have caused the desert to spread southwards. This process is called desertification.



WEEK 4

Spanish

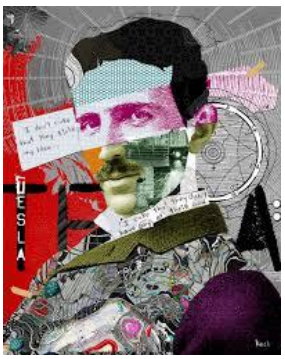
Friends and family relationships	
Me llevo bien	I get along well
Me llevo mal	I get along badly
Me divierto	I have fun
Me río	I laugh
Me peleo	I fight
Me enfado	I get angry
con	with
porque es....	because it is...
porque puede ser..	because it can be..
divertido/a/s	fun
hablador/es	talkative
gracioso/a/s	funny
trabajador/es	hardworking
inteligente/s	intelligent
simpático/a/s	friendly
generoso/a/s	generous
sociable/s	sociable
antipático/a/s	unfriendly
negativo/a/s	negative
impaciente/s	impatient
loco/a/s	crazy
travieso/a/s	naughty
pesimista/s	pessimistic
aburrido/a/s	boring
tonto/s	stupid

WEEK 4

Art

Collage & Lucy Jones

Collage is an art form that involves assembling and gluing different materials like paper, photographs, and fabric onto a surface to create a new composition. Coined from the French word "coller" meaning "to glue," the technique allows artists to layer and combine various elements to form a single work of art that can include painting, drawing, and even 3-D objects. Collage originated in ancient China around the 1st century AD with the invention of paper and was later developed in Japan in the 10th century. While the term "collage" and its widespread recognition in modern art are attributed to Picasso and Braque in the early 20th century, the technique of adhering fragments of paper and other materials to a surface has ancient roots in various cultures.







Lucy Jones

Lucy is a Welsh-born Edinburgh based artist, which creates mixed-media collages of Edinburgh's urban architecture. Her signature style is to combine materials like paint, old maps, sheet music, and other found items, to create her "building portraits". Her subject matter focuses on the city's characteristic Georgian architecture.





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	Everyone has the right to have a say and make decisions, by voting or expressing their opinion.	
Rule of Law	Laws exist to keep people safe and ensure fairness. It's important to follow the law and respect rules, both at school and in society.	
Individual Liberty	Everyone has the freedom to make their own choices, whether it's about their beliefs, where they live, or what they want to do in life.	
Mutual Respect	We must respect each other's opinions, beliefs, and differences. Treating others with kindness and fairness is key to building a strong community.	
Tolerance of Others	It's important to respect and understand people's different religions, cultures, and beliefs, even if they are not the same as ours.	

WEEK 4

English Literature

Miracles

Is an event that seems to go against the laws of nature.

They share certain characteristics:

- Miracles are always good
- They seem to be impossible.
- Are not things that people ordinarily do
- Go against the laws of nature

WEEK 5

English Literature

Colonialism:

The process where a country extends its power and influence over other countries, maintaining social, economic and cultural control. This often includes forcing the colonised country to following the coloniser's religion and beliefs.

Discrimination:

Negative and hurtful actions against protected characteristics. Actions such as racism are classed as discrimination. Discrimination is considered illegal in British law under the Equality Act 2010.

Adversity:

An extremely difficult situation to overcome.

Segregation:

The act of physically separating people, often due to race.

Social identity:

The process of grouping people into categories based on shared traits like nationality, religion, profession or age.

WEEK 5

English Language

Cultural suspicions, deep-seated superstitions, and rigid traditions can severely harm societies by driving social division, stalling scientific progress, and violating human rights. While traditions often provide identity and community, their uncritical preservation can perpetuate systemic harm.

1. Human Rights Violations and Physical Harm

Violence against marginalised groups: In several regions, deep cultural suspicions regarding witchcraft or sorcery lead to the persecution, torture, and murder of vulnerable individuals, particularly elderly women and people with albinism.

Gender-based violence: Traditions like Female Genital Mutilation (FGM), forced child marriages, and "honour killings" are often defended under the guise of preserving cultural purity, family honour, or traditional gender roles.

2. Public Health and Medical Resistance

Rejection of modern medicine: Cultural suspicions can lead communities to reject life-saving interventions like vaccines, blood transfusions, or mental health treatments. Instead, people may rely exclusively on traditional healers, which can worsen preventable illnesses.

3. Discrimination and Social Exclusion

The caste system and social hierarchies: Inherited traditions can lock individuals into rigid social hierarchies by birth, limiting their access to education, employment, and basic human dignity.

Stigmatisation of mental health: In many cultures, mental illness is traditionally viewed as a spiritual curse or a failure of character, preventing individuals from seeking professional help and leading to severe social isolation.

4. Stifling Economic and Intellectual Progress

Resistance to innovation: Strict adherence to "the way things have always been done" can cause communities to reject more efficient agricultural methods, new technologies, or modern educational frameworks.

Gender economic gaps: Traditions that forbid women from owning property, pursuing higher education, or entering the workforce severely limit a nation's overall economic potential.

WEEK 5

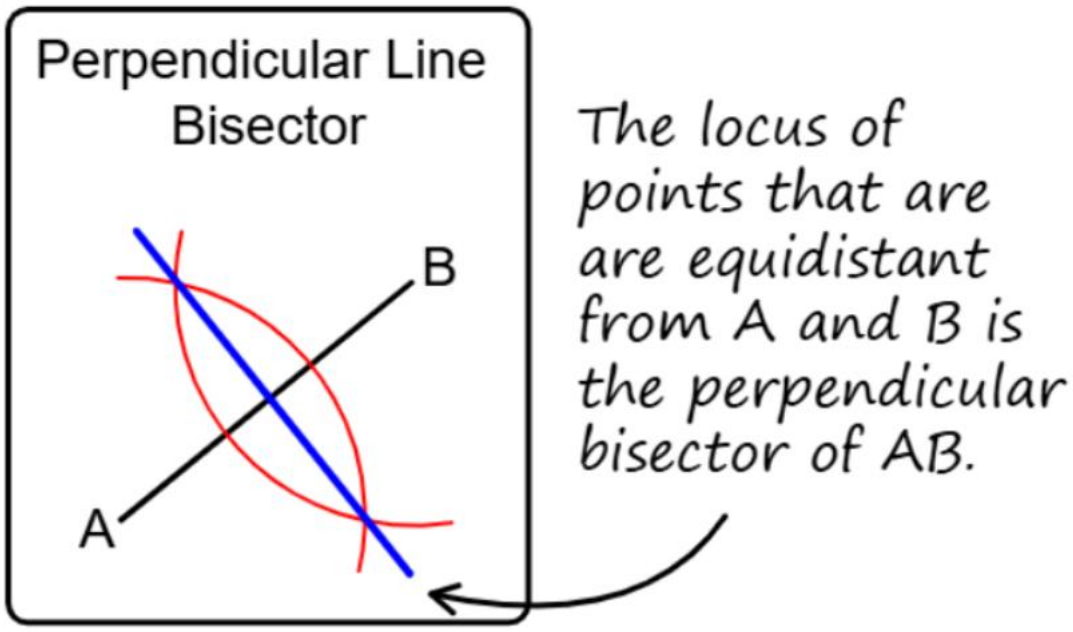
Mathematics

Construction and Congruency

Useful definitions:

Key Vocabulary	Definition
Congruent	A congruent shape is the same but they may be reflected, rotated or translated.
Construction	Construction is using given information construct triangles, using angles and side measurements.
Angle bisector	An angle bisector is a line that divides an angle into two equal angles.
Line bisector	A line bisector is a line which cuts another line exactly in half.
Protractor	A protractor is used to measure and draw angles, when constructing.

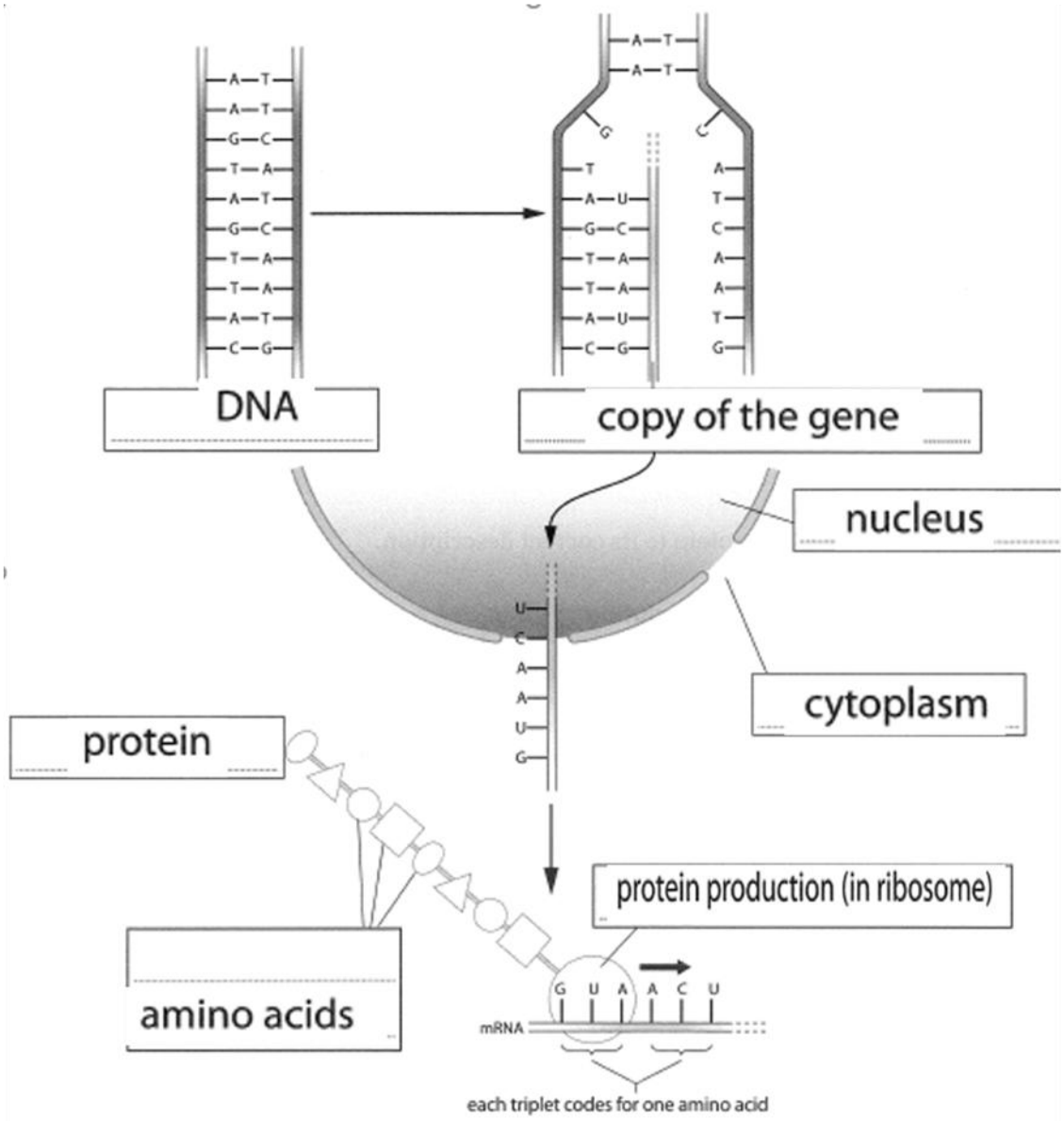
Diagrams:



WEEK 5

Biology

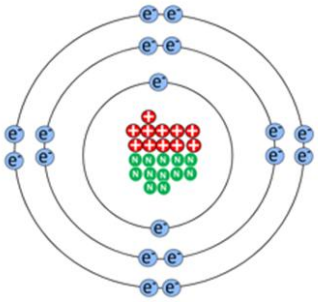
Protein synthesis

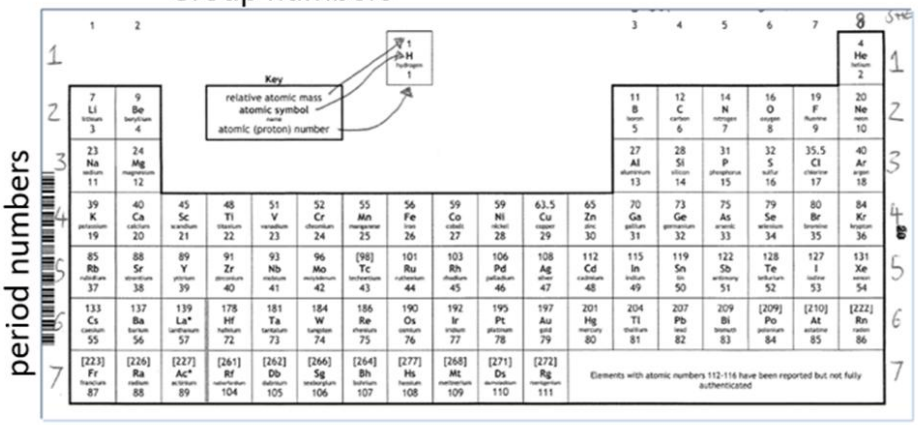


WEEK 5

Chemistry

Group numbers





The group number of an atom is the same as the number of electrons in the outer shell (except helium which can only fit 2 electrons)

The period number is the same as the number of electron shells of the atom

Magnesium, (Mg) is in period 3 so has 3 electron shells. It is in group 2 so has 2 electrons in the outer shell.
Its shorthand configuration will be: 2,8,8,2

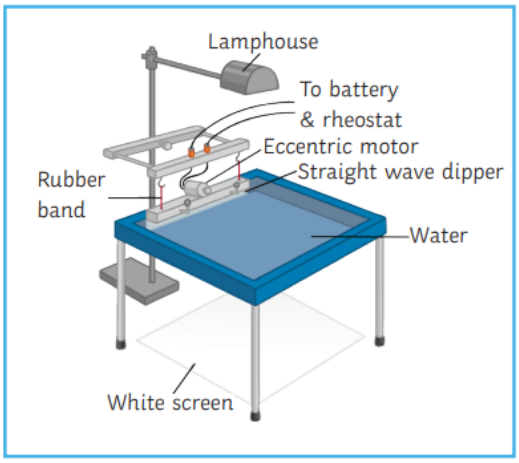
Fluorine, (F) is in period 2 so has 2 electron shells. It is in group 7 so has 7 electrons in the outer shell.
Its shorthand configuration will be 2,7

WEEK 5

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.

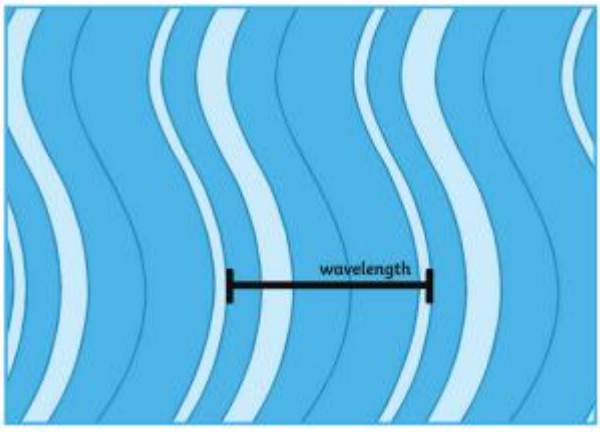
To measure the wave **frequency**, mark a given point onto the white paper and **count** the number of waves which pass the point within **10 seconds**. Divide your answer by 10 to find the number of **waves per second**.

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

To calculate the wave speed, use this formula:

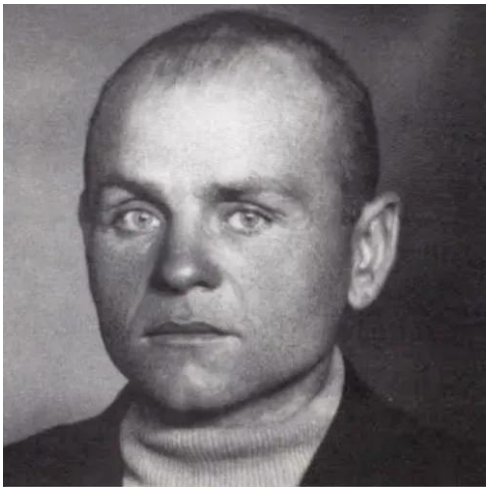
speed = frequency × wavelength

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



WEEK 5

History



Leopold Socha

Leopold was a sewer worker in the Polish city of Lwów. He had been a thief when he was younger and had served three prison sentences by his mid-twenties.

In 1943 he met a group of Jews who were hiding in the sewers after escaping from the ghetto. Leopold and his colleague Stefan Wróblewski offered to use their knowledge of the sewers to find them a safe hiding place and supply them with food in return for money.

However, after the money ran out, Leopold and Stefan decided to continue protecting the Jews and used their own money to pay for supplies. Krystyna Chiger, who was seven years old when she began hiding, remembered that Leopold would bring "whatever we requested". He even brought candles every Friday for the Sabbath meal, arguing that the Jews should keep their religious traditions even in the sewers.

Krystyna Chiger believed that Leopold was trying to make up for the crimes he had committed when he was younger. She wrote that "I did not get the sense that Socha would ever abandon us. From the very beginning, I could see that this was not his nature."

Leopold's actions saved the lives of ten people, including Krystyna. Leopold died in a motor accident in 1946

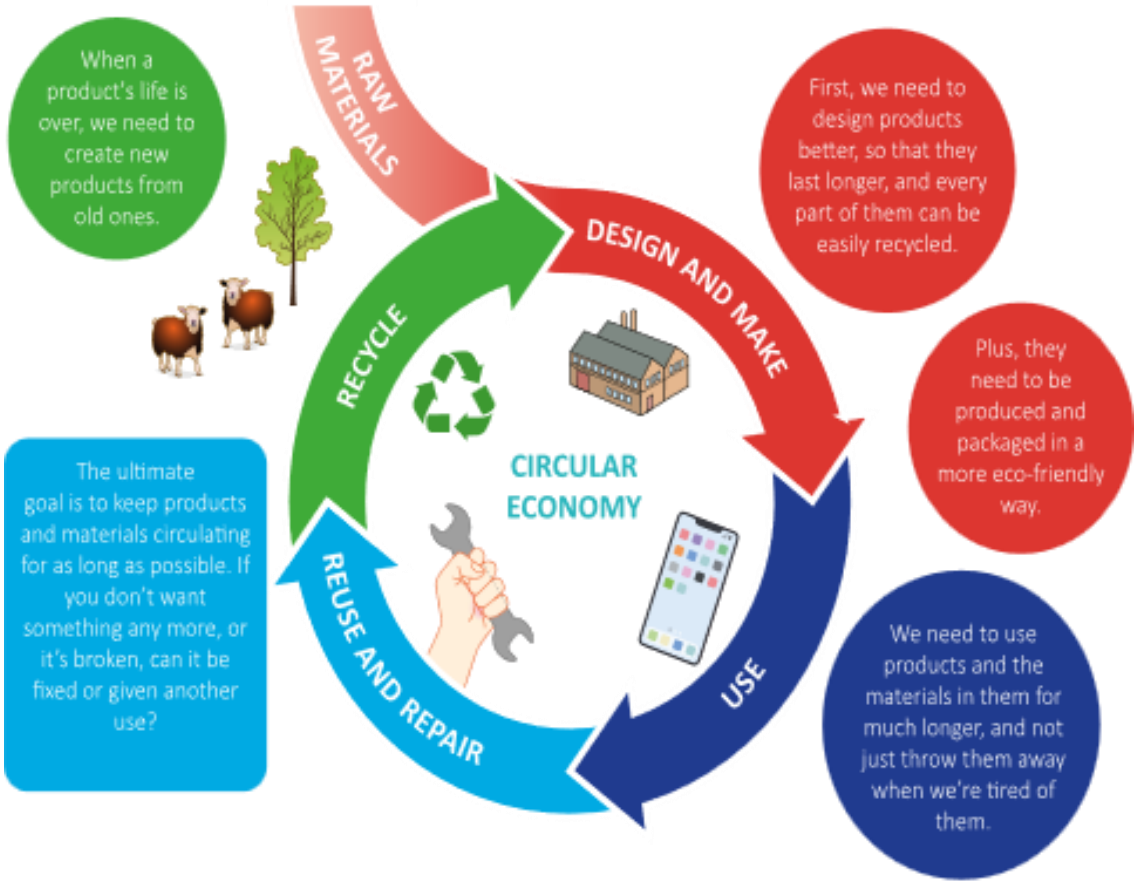
WEEK 5

Geography

What are the challenges and opportunities of urbanisation in Africa?

A circular economy works with the Earth's systems. It mimics how the Earth works by reusing and recycling, only creating waste as a last resort.

Currently African countries have a smaller ecological footprint than industrialised countries. As they develop they need to learn from the mistakes of the industrialised world and work with the Earth's systems, using and adapting indigenous practices, which work in harmony with the environment.



WEEK 5

Spanish

(no) soy como mi madre/ mi padre….	I am like/I am not like my Mum/Dad
(no) me parezco a mi madre/mi padre…	I look like/I don't look like my Mum/Dad
porque **los dos somos** altos/ bajos/guapos	because we are both tall/short/handsome/attractive
porque soy adoptado	because I am adopted

la moda	fashion
los coches	cars
el maquillaje	makeup
los chistes	jokes
los videojuegos	video games
la ropa	clothes
la fotografía	photography
los libros	books
los vídeos graciosos	funny videos
los juegos en línea	online games

WEEK 5

Art

Texture in Art & Ebtehal Salah

In art, texture refers to the surface quality of a work, which can be either actual and felt by touch or implied and created visually. It adds depth and realism to a piece by representing how a surface looks or feels, using techniques like thick paint application (impasto) or careful linework to create different effects, such as rough, smooth, soft, or hard.

Types of texture

Actual texture: This is the physical, tactile quality of the surface you could actually touch.

- **How it's created:** Artists use materials and techniques that result in a physical surface quality.

Implied texture: This is the visual illusion of texture that is created through artistic techniques, but the surface itself is flat.

- **How it's created:** Artists use different marks, lines, and shading to make a flat surface look like it has a specific texture.

Why artists use texture

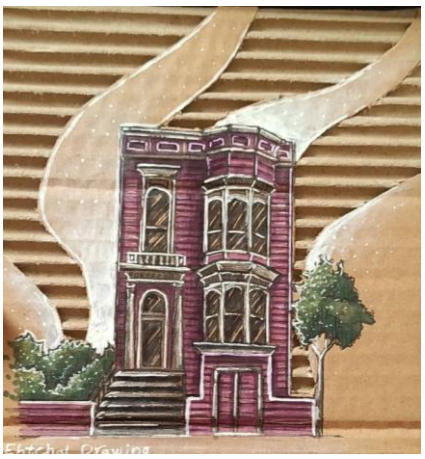
- **To add realism:** Texture can make a flat image feel more tangible and lifelike.
- **To add depth and emotion:** It can evoke feelings and create a more immersive experience for the viewer.
- **To serve a function:** In some cases, like in functional textiles, texture can be chosen for comfort, warmth, or durability,

Ebtehal Salah

An architect and artist from Benghazi, Libya, she is known for creating intricate 3D architectural artworks out of inexpensive materials, like cardboard. Her work often features detailed renderings of buildings and urban landscapes.







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 5

RE

Idea	Description
Argument from design	The world is so complex it must have had a designer.
Argument from first	Every event has a cause, the universe is an event so must have been caused by something.
Argument from morality	Everyone has a shared sense of right and wrong so someone must have given everyone that shared sense.
Big Bang	The universe was created from a singularity that expanded outward and cooled. It is still stretching to this day.
Evolution	The natural process whereby the best-adapted individuals survive longer, have more offspring and thereby spread their characteristics. (‘Survival of the fittest'.)
Golden Rule	Treat others how you want to be treated.
Immortality	Is the idea of eternal life.
Miracles	Is an event that seems to go against the laws of nature.
Direct Revelation	Where people see or hear God
Indirect Revelation	Where people interpret what they see as having a connection to God.

WEEK 6

English Literature

Non-linear structure:

When a text follows does not follow a traditional linear pathway; this may involve flashbacks or flashforwards to provide more context.

Tableau:

When a scene freezes, creating a dramatic moment where a character often then speaks in front of the frozen action which serves as a backdrop.

Foreshadowing:

Hinting at future events within a text.

Euphemism:

Making something sound less severe than it is through using more pleasant-sounding language. An example may be that somebody has 'kicked the bucket' instead of bluntly stating that they have died.

Dialect:

A particular form of language spoken by a particular group, mostly in a certain geographical region.

WEEK 6

English Language

Women and girls face violence, discrimination and injustice every day of their lives. These statistics evidence the struggle women across the globe.

Violence against women and girls

From domestic violence to traditional harmful social practices and sexual exploitation, violence against women and girls happens all over the world.

1 in 3 women around the world experience violence (source. World Health Organization).

58% of all women murdered in 2017 were killed by an intimate partner or a family member (source. United Nations Office on Drugs and Crime, 2018).

Around 650 million women across the globe were married before the age of 18 (source. Unicef, 2018).

71% of all human trafficking involves women and girls – mainly for sexual exploitation (source. UNODC, 2016).

Women and girls suffer the most during violent conflict due to inequality and discrimination. They are more at risk of sexual violence, exploitation and trafficking during war.

Women's economic rights

Women don't have the same economic rights as men. Unpaid care work, lack of fair pay and job security, poor working conditions, and limited opportunity to own land and inherit property are all undermining women's rights. Women can't earn a living and take control of their lives.

Women spend at least twice as much time as men on domestic work, and when all work – (paid and unpaid) – is considered, women work longer hours than men (source. The World's Women, 2015).

Over 2.7 billion women don't have the same work opportunities as men, with laws restricting the types of jobs they can do (source. World Bank, 2018).

Less than 15% of landholders worldwide are women, despite most women in the global south working in agriculture (source. Food and Agriculture Organization, 2015; World Bank, 2019).

In 2018, the estimated global gender pay gap was 22%, with women earning around 78% of what men are paid (source. ILO, 2018).

Nearly 82 million women around the world don't have any legal protection against discrimination in the workplace (source. World Policy Analysis Centre, 2017).

Women's participation and leadership

Discrimination, violence and inequality stop women from speaking up about the decisions affecting their lives.

Women make up just 25% of parliamentarians worldwide (source. Inter-Parliamentary Union, 2019).

In January 2019, there were 11 women serving as Head of State and 10 as Head of Government (source. UN Women, 2019).

In January 2019, 1 in 5 government ministers around the world were women (source. Inter-Parliamentary Union, 2019).

Between 1990 and 2019 women made up 2% of mediators, 5% of witnesses and signatories, and 8% of negotiators in major peace processes worldwide (source. Council of Foreign Relations, 2019).

When women are involved in negotiations the probability of a peace agreement lasting at least two years is increased by 20 per cent, and 15 years by 35 per cent (source. Preventing Conflict, Transforming Justice, and Securing the Peace: A Global Study on Implementation of Security Council Resolution 1325, 2015).

WEEK 6

Mathematics

Locus

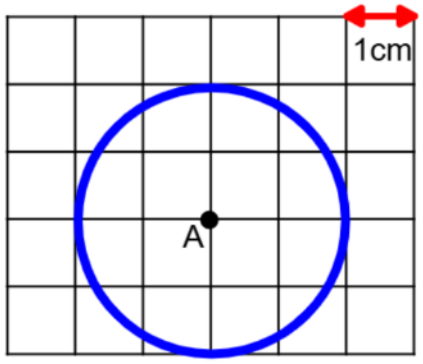
Useful definitions:

Key Vocabulary	Definition
Locus	The path of a point that moves according to a certain rule is a locus
Equidistant	Equidistant means the same distance. It often refers to the same distance around a fixed point, a line or another point.
Perpendicular	Perpendicular lines meet at a right angle.
Construction Lines	Construction
Line Segment	A line segment is a part of a line that has two defined endpoints.

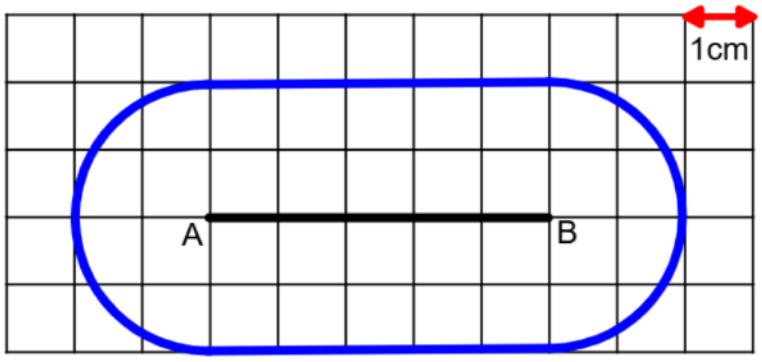
Diagrams:

examples

Draw the locus of points that are 2cm away from A



Draw the locus of points that are 2cm away from AB.



WEEK 6

Biology

Gene expression

We think there are about 20 000 genes in the human genome that 'code' for proteins

Only a few genes that are needed in the genome are switched on the rest are switched off!

The 20 000 'coding' genes only make up about 1.5% of your genome!!!

The remaining 98.5% of your DNA is more mysterious, and for a time scientists described it as 'junk'.

We now call it 'non protein-coding DNA'

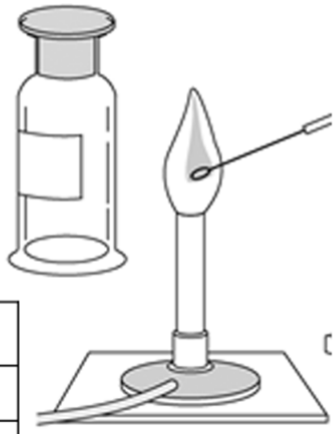
Now scientists think that up to 80% of this DNA is important in controlling gene expression.

This means it controls when and how when the information in genes is used to make proteins.

WEEK 6

Chemistry

Flame tests



- Wear goggles
- Dip a damp splint into a metal salt
- Put into a roaring Bunsen flame
- Note down the name of the compound and the colour you see.

Metal in compound	colour
Copper	Blue-green
Potassium	lilac
Lithium	red
Sodium	yellow
Calcium	orange

This is not the most reliable way to identify elements because:

- Colour is subjective
- There are more elements than there are colours
- Some colours cannot be seen very easily

WEEK 6

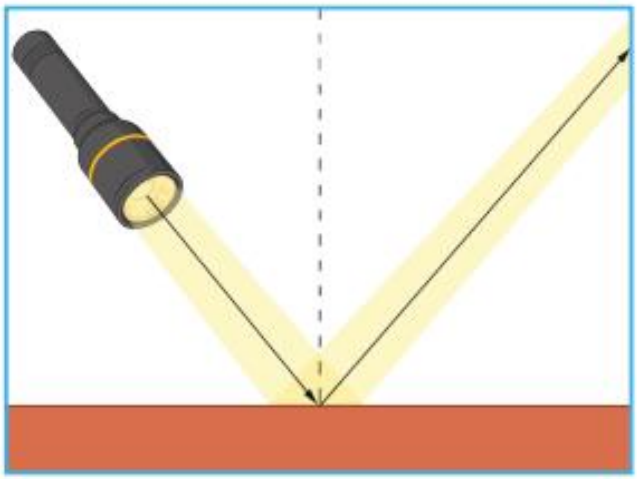
Physics

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**.

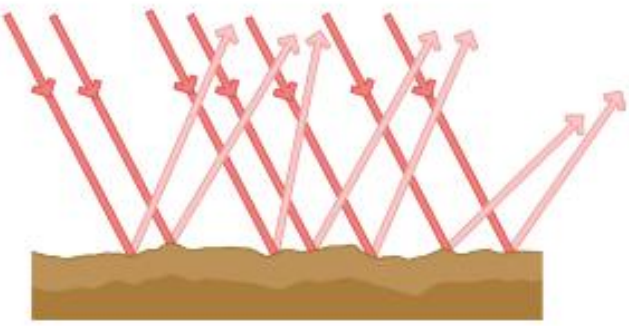
What happens depends on the properties of the surface the wave hits.

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 6

History

How should we remember the Holocaust?

Stolpersteine, Germany



- These 'stumbling stones' commemorate individuals who were victims of the Nazis. Each metal cobble carries the person's name, date of birth and information about what happened to them.
- The stones are placed outside the address where the person used to live.
- The first stone was laid in Cologne in 1992. There are now tens of thousands across Germany.

United States Holocaust Memoral Museum



- The United States Holocaust Memorial Museum is the USA's national memorial to the Holocaust.
- It was created on the recommendation of the President's Commission on the Holocaust which was established by President Carter in 1978. The museum opened in 1993.
- The large permanent exhibition includes historical artefacts, film footage and eyewitness testimonies. The museum also runs educational programmes.

Holocaust Memorial Garden, Hyde Park



- The Holocaust Memorial Garden was opened in Hyde Park in 1983.
- It contains boulders, the largest of which is inscribed with a quotation from the Book of Lamentations.
- It had originally been suggested that the memorial be placed outside Parliament or by the Cenotaph in Whitehall but these ideas were rejected.

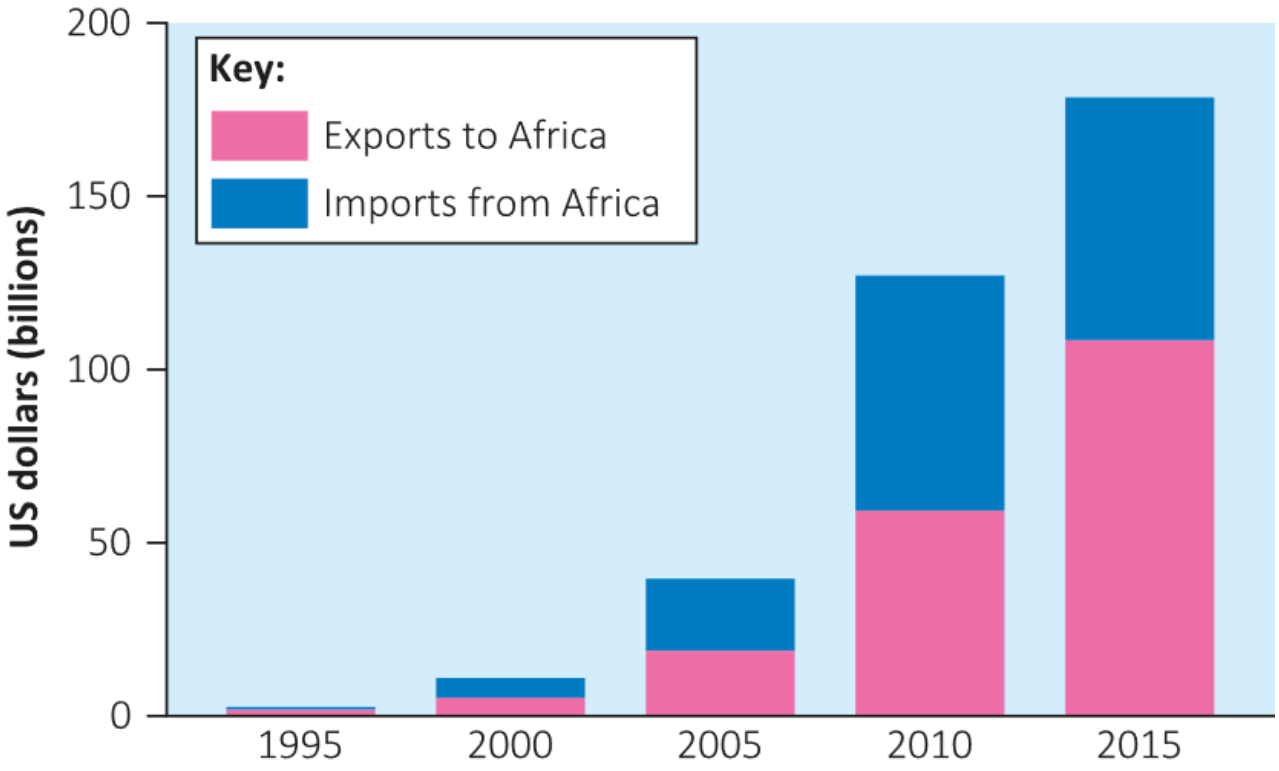
WEEK 6

Geography

Is China helping to develop African countries?

China overtook the USA as Africa's largest trade partner in 2009. Now, 15 per cent of Africa's exports, mainly natural resources, go to China. China provides 21 per cent of Africa's imports, including a range of machinery, transportation, communications equipment, and manufactured goods, see Chart B.

China is funding the building of factories and the construction of roads, railways, ports, airports, hospitals, schools and stadiums, spending billions of dollars a year, in African countries. More than 1 million Chinese, most of them labourers and traders, have moved to the continent in the past decade. Transport projects such as Article A are part of the global 'Belt and Road' initiative.



WEEK 6

Spanish

Describe a friend or family member	
me llevo bien	I get along well
me divierto	I have fun
me río	I laugh
tenemos los mismos intereses	We have the same interests
me ayuda	He/she helps me
me escucha	He/she listens to me
me respeta	He/she respects me
me acepta	He/she accepts me
no me critica	He/she doesn't criticize me
me comprende	He/she understands me
mi amigo/ mi mejor amigo se llama es	My friend/my best friend is called is
él/ ella es	He/she is
él/ ella puede ser	He/she can be
tiene	He/she has
lleva	He/she wears

WEEK 6

Art

Illustration

Illustration art is the creation of visual images to explain, decorate, or tell a story, often to accompany text or other media. It serves a practical purpose, such as enhancing understanding in books, magazines, and advertising, and can be created using both traditional and digital tools. The main goal is to communicate a message, concept, or idea clearly and effectively to a specific audience.

Purpose and function

- **To explain:** Illustrations visually represent concepts, processes, or information to make it more understandable (e.g., a diagram in a textbook).
- **To tell a story:** They help bring narratives to life in books, comics, and other media.
- **To sell or advertise:** They can be used to grab attention and sell a product or idea.
- **To decorate:** Illustrations can add visual interest and aesthetic appeal to various forms of media.

Mediums and techniques

- **Traditional:** Pencil, ink, watercolour, oil paint, woodcutting, and other physical media.
- **Digital:** Software like Adobe Illustrator or Procreate, used with digital tablets and brushes.
- **Mixed media:** Combining traditional and digital elements or using unconventional materials.







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	Everyone has the right to have a say and make decisions, by voting or expressing their opinion.	
Rule of Law	Laws exist to keep people safe and ensure fairness. It's important to follow the law and respect rules, both at school and in society.	
Individual Liberty	Everyone has the freedom to make their own choices, whether it's about their beliefs, where they live, or what they want to do in life.	
Mutual Respect	We must respect each other's opinions, beliefs, and differences. Treating others with kindness and fairness is key to building a strong community.	
Tolerance of Others	It's important to respect and understand people's different religions, cultures, and beliefs, even if they are not the same as ours.	

WEEK 6

RE

The problem of evil and suffering is that how can an all-powerful, all-loving God coexist with the existence of evil and suffering.

There are two types of evil and suffering:

1. Moral evil and suffering – this is suffering caused by the actions of humans. Examples include acts of murder, and war.
2. Natural evil and suffering – this is suffering that is caused by nature and has nothing to do with the actions of humans. Examples include earthquakes, floods, tsunamis and disease

Evil and suffering clearly exist in the world so, either God does not exist or he cannot be omnibenevolent, omnipotent and omniscient.

Some may say people suffer as punishment for wrongdoings or that suffering makes people stronger. It can be seen as a test of faith. Others may say suffering is the result of peoples freewill.