CLEETHORPES ACADEMY HOME LEARNING

SPRING 1: YEAR 8



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 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 the following blank page 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 FNGUSH LITERATURE

The Brothers Grimm

Have you heard the one about the beautiful young girl forced to live with seven tiny miners to avoid the evil plots of her wicked stepmother? Of course, you have! Everyone knows the tale of Snow White and the Seven Dwarfs.

But how is it we know Snow White's tale, as well as those of other fairy tale characters, such as Rapunzel, Rumpelstiltskin, Cinderella, and Sleeping Beauty? You can thank two brothers.

The Brothers Grimm, Jacob and Wilhelm, were from Germany. They worked in a library and were really interested in studying old languages. In the 1800s, they started collecting stories that people told in different parts of the country and put them in books.

The Brothers Grimm weren't the ones who penned the stories they have become known for. The stories had been part of a time-honored oral tradition in Germany and passed down from one generation to the next for many years.

The Brothers Grimm talked to their friends and family and wrote the stories that people used to tell a long time ago. They did this to make sure the stories wouldn't be forgotten. Then, in 1812, they made a book called Children's and Household Tales that had all the stories in it, which included folklore and fairy tales.

The Brothers Grimm's book had a lot of different stories in it. Some of the most popular ones are "Snow White and the Seven Dwarfs," "The Frog Prince," "Little Red Riding Hood," and "Hansel and Gretel." They kept adding more stories to the book over the years, so it got bigger and bigger. The first book had 86 stories, but the last one—the seventh edition—had over 200!

Lots of people all over the world like to read the stories that the Brothers Grimm wrote a long time ago. These stories are now written in over 160 different languages! They are really timeless and popular, so there might be different versions of the same story in one language. In the United States, for example, there are more than 120 different editions of Grimm's Fairy Tales.

Many people like the stories that the Brothers Grimm wrote so much that they've made them into movies. Even though some think these stories are just for kids, they weren't for children back then.

The first versions of Grimm's Fairy Tales did not have pictures in them, and they were meant for grown-ups to read. Some stories had things like fighting or scary stuff in them that wasn't really for kids. But as time went on, people changed the stories to make them more like the ones we know now.

The Brothers Grimm wrote about many things like old stories, languages, and history. But the book people know them best for is Grimm's Fairy Tales. It was a really famous book when they were alive, and people still like to read it today!

Digital Footprint

What is a Digital Footprint?

A digital footprint is the trail of information you leave behind every time you use the internet, even if you don't realise it. This includes things like posts, photos, likes, comments, searches and accounts you create. The important thing to remember is that most of this information can stay online permanently, even if you try to delete it later. Websites, screenshots and backups mean your footprint can follow you for years, so it's important to think before you post.

How can it affect our futures?

Your digital footprint can be checked by colleges, universities and future employers, even years after you posted something. Harmless but embarrassing posts can give the wrong impression, and more serious behaviour online can lead to missed opportunities or rejected applications.

Privacy Tips

- Limit your audience to 'friends only' or 'private'.
- Be mindful of what you post. Avoid posting anything that could cause negative repercussions in the future.
- Regularly check your privacy settings to make sure everything you post isn't public.
- Aim to have a **positive digital footprint** this might show how creative, hard working or even how friendly you are.

WEEK 1 ENGLISH LANGUAGE

Structural Features

Key Vocabulary	Definition	
<u>Narrative</u> <u>Structure</u>	The way a story is organised or put together. It's like a roadmap that shows how the story begins, develops, and ends. Most stories follow a similar structure to keep the audience interested.	
<u>Exposition</u>	The beginning of a story where the setting, characters, and important background information are introduced. Example: In a fairy tale, this might be where we learn about the kingdom and meet the main characters.	
Rising Action	The part of the story where problems or challenges start to build up. Making the story more exciting. Example: The hero begins their journey and faces obstacles.	
<u>Climax</u>	The most exciting or important moment in the story, where the main problem reaches its peak. Example: A big battle or the moment the hero makes a crucial decision.	
Falling Action	The part of the story after the climax, where things start to calm down and the events lead towards the ending. Example: The hero returns home after the adventure.	
Resolution	The end of the story where all the problems are solved, and we see how things turn out for the characters. Example: The kingdom is saved, and everyone lives happily every after.	
<u>Conflict</u>	The main problem or struggle in the story that the character must face. Example: A character trying to defeat an enemy or overcome their fears.	
<u>Denouement</u>	The very end of a story, where any leftover questions or mysteries are explained. Example: A detective reveals how they solved the case.	

MATHEMATICS

<u>Algebra</u>

Useful Definitions

Key Vocabulary	Definition	
<u>Expression</u>	An algebraic question without an equal's sign that express a quantity. For example: $3a + 4a + 2a$	
Equation	An algebraic statement that has an equal's sign where both sides are equal. An equation can only contain one type of variable. For example: $2x + 5 = 10$	
<u>Formula</u>	Similar to an equation, two sides of an equal's sign but more than one variable involved. For example: $2x + 3y = 10$	
<u>Variable</u>	One term or item in a question or equation. Can also be a letter.	

Categorising

Expression, Equation or Formula?

- 1) 5x + 9 1) 4x + 5 = 22) 7x + 3 = 8 2) $3x^2 + 2y$ 3) y = mx + 1
 - 1) 4x + 5 = 2x

- 3) 6a 2
- 3) y = mx + c4) v = bhd
- 4) 8b + 4d 5) 8x = 0
- 5) v = u + at
- Answers:

- Answers:
- Expression
 Equation
 Equation
 Expression

- Expression
- 3) Formula
- 4) Expression 4) Formula
- 5) Equation
- 5) Formula

WEEK 1 BIOLOGY

Key Words

_		
Word	Meaning	
Biodiversity	The variety of living organisms.	
Carrion	Decaying flesh and tissue of dead animals.	
Community	Made up of the populations of different species living in a habitat.	
Competition	The negative interaction between two or more organisms which require the same limited resource.	
Consumers	Feed on other organisms for their energy. Can be primary, secondary or tertiary.	
Decomposers	Organisms which feed on dead and decaying organisms. They break down the biomass and release nutrients into the soil.	
Deforestation	The removal and destructions of trees in forest and woodland.	
Ecosystem	The interaction between the living organisms and the different factors of the environment.	
Global Warming	The increase of the average global temperature.	
Habitat	Where a living organism lives.	
Interdependence	The interaction between two or more organisms, where it is mutually beneficial.	
Population	The number of individual organisms of a single species living in a habitat.	
Predators	Organisms that kill for food.	
Prey	The animals which are eaten by the predators.	
Producers	Convert the sun's energy into useful compounds through photosynthesis. They are green plants or algae.	
Scavengers	Organisms which feed on dead animals (carrion)	
Species	Organisms of similar morphology which can interbreed to produce fertile offspring.	

WEEK 1 CHEMISTRY

Compounds and Mixtures

Compounds

Compounds contain two or more different elements chemically bonded together, for example, carbon dioxide contains carbon and oxygen.

Mixtures

Mixtures contain substances that are not chemically bonded. Mixtures can be seperated easily.

<u>Pure</u>

A pure element or compound contains only one substance, with no other substances mixed in. Impure materials are mixtures of elements, compounds, or both.

Examples:

	gas		
gas	air	liquid	
liquid	aerosols and foams	solutions, e.g. beer	solid
solid	smoke	solutions, e.g. salt water	metal alloys

WEEK 1 PHYSICS

Key Words

Word	Meaning	
Conduction	The transfer of energy through a material by particles colliding with each other when they vibrate.	
Convection	The transfer of energy through a fluid by particles colliding with each other.	
Dissipation	The transfer or energy from a system to the surroundings. Often described as wasted energy.	
Energy Pathway	A way in which energy is transferred from one store to another.	
Energy Resource	A system that can store large amounts of energy. They can often by used to generate electricity.	
Energy Store	A way that energy is stored in or by objects due to their motion, positions, shape or processes.	
Energy Transfer	The movement of energy from one store to another.	
Insulator	A material that does not allow energy to transfer through it easily.	
Radiation	The transfer of energy as waves.	
System	A group of objects.	
Temperature	A measure of the average kinetic energy of the particles in a substance. Measured in degrees Celsius (°C)	

WEEK 1 GEOGRAPHY

One planet, many people: how are populations changing?

Population density:

Population density if the number of people living in a given area, usually a square kilometre.

Population density is calculated like this:

Total population
Area

Population distribution:

Population distribution is the pattern of where people live and how populations are spread out. Sparsely populated areas have few people living in them. Densely populated areas have many people living in them.

Why is global population distribution uneven?

Areas that are often sparsely populated tend to have fewer resources and be harder to live in, such as mountainous areas, deserts or isolated places. This is because historically, populations grew in areas with natural resources that could support a population.

A table showing the top ten most populated countries:

Country	Population
India	1,428,627,663
China	1,425,671,352
USA	339,996,563
Indonesia	277,534,122
Pakistan	240,485,658
Nigeria	223,804,632
Brazil	216,422,446
Bangladesh	172,954,319
Russia	144,444,359
Mexico	128,455,567

WEEK 1 Art and Design

Introduction to Portraiture

A **portrait** is an artwork that shows a person.

It can show:

- What they look like
- Their personality
- Their mood
- Their story or status

Portraits can be drawn, painted, sculpted, photographed, or made in many other creative ways.

Historical Context: Portraits Through Time

Ancient Portraits

- One of the earliest ways people recorded what someone looked like.
- Egyptians painted pharaohs to show power and importance.
- Greek and Roman artists made realistic sculptures of leaders and important citizens.

Medieval Portraits

- Portraits often showed kings, queens and religious figures.
- Artists made people look serious, powerful and sometimes idealised rather than realistic

Renaissance Portraits (1400s-1600s)

- Artists wanted portraits to look more realistic.
- They studied anatomy, light and shadow.
- Famous examples include Leonardo da Vinci's *Mona Lisa*.

18th-19th Century

- Portraits became more common for ordinary people, not just the rich.
- Photography was invented in the 1800s, changing portrait art forever.

Personal Development

Protected characteristics

Age	People cannot be treated unfairly because they are young or old. Everyone deserves respect, no matter their age	AGE
Disability	People with physical or mental disabilities must be treated fairly, with reasonable adjustments made to support them in school, work, and life.	6 DISABILITY
Gender Reassignment	A person is considered to be <i>transitioning</i> if they change their gender through actions like changing their name, pronouns, appearance, or having medical treatment to match their identity.	GENDER PELARSGEMENT
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.	PREGNANCY AND MATERNITY
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.	98

Week 1 HISTORY

Definitions of Revolution

- 1. A forcible overthrow of a government or social order, in favour of a new system
- 2. The overthrow of a government by those who are governed
- 3. A drastic and far-reaching change in ways of thinking and behaving
- 4. A revolution is also a drastic change in a field such as the fashion industry or technology, or similarly, a sudden, often violent uprising from the people to change the political system.

Political = government/rulers Social = people Economic = money

WEEK 1 SPANISH

¿Dónde vives?	Where do you live?
Vivo	I live
en	in
una casa	a house
un piso	a flat
un chalet	a bungalow
una granja	a farm
está en	it is in
una ciudad	a city
un pueblo	a village/ small town
un barrio moderno/ tranquilo/	a modern/ peaceful/ noisy/ nice
ruidoso/ bonito	neighbourhood
la montaña	the mountains
el campo	the countryside
la costa	the coast
el norte	the norte
el centro	the centre
el oeste	the west
el sur	the south
de Inglaterra	of England
Opinions	
Me gusta	l like
No me gusta	I don't lilke
Me encanta	I love
Odio	I hate
Prefiero	I prefer
No soporto	I can't stand
Me gusta mucho	I really like
Creo que	I believe that
Pienso que	I think that
En mi opinión	In my opinion
parece	It seems
Puede ser	It can be
	- <u>-</u>

WEEK 2 ENGLISH LITERATURE

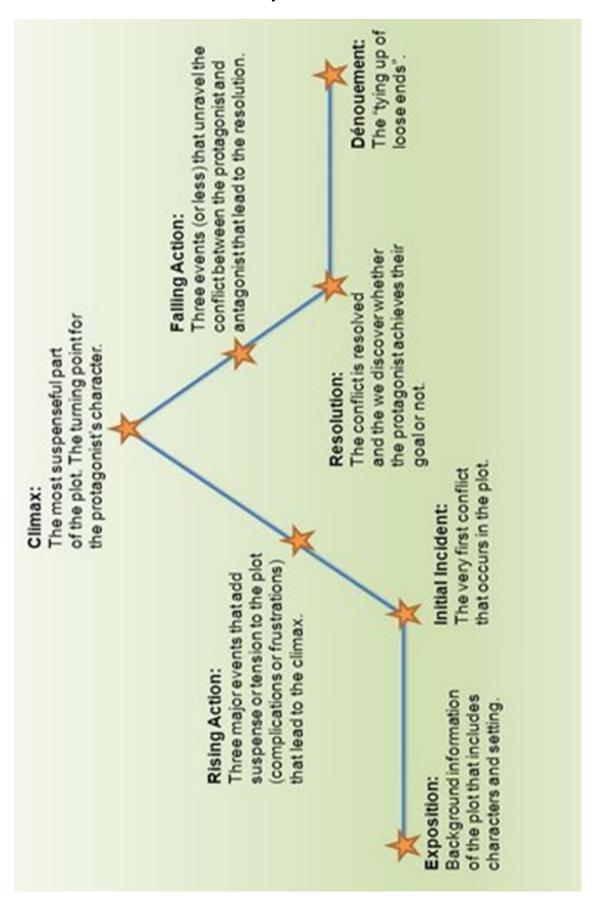
Chinese Cinderella

- China is the world's longest continuous civilization, with some historians marking 6000 B.C. as the dawn of Chinese civilization.
- In Chinese culture, family is extremely important. You will often find three generations under one roof because family is seen as a unit, rather than individual people. Families tend to live together in apartments.
- Respect for elder members of the family is an important tradition that is still upheld today. Grandparents are considered the heads of the family.
- Chinese men and women are under a lot of pressure to marry and have a child, in order to continue to bloodline.
- Until 2016, Chinese families in urban areas were only allowed to have one child. Because females wouldn't be able to carry on the family name or inherit the family land, baby boys were more favourable.
- In traditional families, all children are expected to obey their parents without discussion. Parents are strict because their children's choices reflect on them.
- Parents are also often involved in their children's school activities. Chinese students typically spend a great deal of time at school.

Adhere = Follow strictly
Upheld = To keep up a custom/tradition

WEEK 2 ENGLISH LANGUAGE

Story Structure



MATHEMATICS

Expand & Factorise

Expand – Means to multiply out the bracket

$$3(x + 2) \equiv 3 \times x + 3 \times 2 \equiv 3x + 6$$

 $3(2x + 3) \equiv 3 \times 2x + 3 \times 3 \equiv 6x + 9$
 $4(3x + 1) \equiv 4 \times 3x + 4 \times 1 \equiv 12x + 4$
 $11(3 + 7p) \equiv 11 \times 3 + 11 \times 7p \equiv 33 + 77p$

<u>Factorise</u> – Means to divide by a common term in order to put something back into a bracket.

$$4g+12\equiv 4(g+3)$$

$$16g + 40 \equiv 8(2g + 5)$$

$$20g - 18 \equiv 2(10g - 9)$$

$$g^2 + 20g \equiv g(g + 20)$$

$$g^2-18$$
g \equiv g(g - 18)

$$4g^2-12g\equiv 4\mathsf{g}(\mathsf{g}-3)$$

WEEK 2 BIOLOGY

Adaptations

Adaptations are specific features of an organism which enable them to survive in the conditions of their habitat.

Adaptations can be structural, behavioural or functional:

- Structural adaptations are features of the organism's body e.g., colour or camouflage.
- Behavioural adaptations are how the organism behaves e.g., migration to a warmer climate during colder seasons.
- Functional adaptations are the ways the physiological processes work in the organism e.g., lower metabolism during hibernation to preserve energy.

A plant or animal will not physically change to adapt to its environment in its lifetime. Instead, there is natural variation within the species and only organisms whose features are more advantageous in the environment survive. The survivors then go on to reproduce and pass on their features to some of their offspring. The offspring who inherit these advantageous features are better equipped to survive. Charles Darwin described this process as 'survival of the fittest'.

CHEMISTRY

Three States of Matter

	Solid	Liquid	Gas	
particle model diagram			000	
nauticle	regular structure	irregular structure	irregular structure	
particle arrangement	no space between particles	very little space between particles	large space between particles	
volume and	fixed volume	fixed volume	volume increases to fill capacity	
shape	fixed shape	shape changes to fill bottom of container shape changes to capacity		
	no	yes	yes	
able to flow	(forces between particles are very strong and hold them in fixed positions)	(forces between particles are weak and particles slide over one another)	(forces between particles are very weak and particles move randomly and rapidly)	
	high	high	low	
density	cannot be compressed	cannot be compressed	can be compressed	
	(particles are already tightly packed)	(particles are already tightly packed)	(particles are forced closer together)	
	low	moderate	high	
particle energy levels	(particles vibrate around a fixed point only)	(particles can move and flow but slowly)	(particles moving rapidly and freely)	
examples	wood, metal, stone, plastic	water, milk, bleach, acid	air, oxygen, carbon dioxide	

WEEK 2 PHYSICS

Energy Stores

Key Word	Definition	
Chemical Store	The energy stored in the bones of a substance or group of substances. Examples include the chemicals inside a battery, food or muscles.	
Kinetic Store	The energy stored in a moving object.	
Elastic Potential Store	The energy stored when an object has been stretched or compressed.	
Thermal Store	The total energy of the particles in an object. The more energy there is in this store, the higher the temperature of the object.	
Gravitational Potential Store	The energy stored when an object is lifted in a gravitational field.	
Nuclear Store	The energy stored in the nucleus on an atom.	
Magnetic Store	The energy stored when repelling poles have been pushed closer together or when attracting poles have been pulled further apart.	
Electrostatic Store	The energy stored when repelling charges have been pushed closer together or when attracting charges have been pulled further apart.	

WEEK 2 GEOGRAPHY

The Census and its Importance

A demographer is a person who studies statistical data of human populations.

A census is a survey that happens once a decade of all the people and households in a country. Most countries conduct a census.

In the UK, a census has been carried out every decade since 1801, with the exception of 1941. The most recent UK census was in 2021. This was the first census for the UK that was predominantly completed online. Households had previously completed the survey on paper.

Demographers use census data to provide a snapshot of all the people and households in a country. All the information provided in a census is anonymous and the actual census records are kept secure for 100 years. After that time, the information is released to the public.

Census data helps a wide range of people and organisations to do their work. The data is important for local government to develop policies, allocate budgets and plan and run services such as schools, healthcare, roads and libraries. Companies also use the census data to understand their customers. A supermarket might use the data to decide where to locate a new store.

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 2 Art and Design

Modern and Contemporary Portraiture

Photography and New Media

- Cameras allowed quick, accurate portraits.
- Artists began exploring expression and identity instead of strict realism.

Expressionism

- Artists changed colours and shapes to show emotion rather than accuracy.
- Faces may look distorted or exaggerated.

Cubism (e.g., Pablo Picasso)

- Portraits broken into geometric shapes.
- Shows different viewpoints at the same time.
- Can look unusual or abstract

Pop Art (e.g., Andy Warhol)

- Bold colours, repeated images, simplified shapes.
- Portraits became fun, bright, and linked to popular culture.

Abstract and Experimental Portraits Today

Modern portraits do not have to look realistic. They might:

- Use bright, unrealistic colours
- Mix collage, paint, photography, digital tools
- Show personality through patterns, symbols, or textures
- Only show parts of a face
- Be completely non-realistic

The goal is to express **identity**, **emotion**, or **story** in creative ways.

Key Themes in Portraiture

- **Identity** Who is this person?
- **Emotion** How do they feel?
- **Story** What can we learn about them?
- **Style** Realistic or abstract?
- Materials Pencil, paint, collage, digital, etc.

WEEK 2 HISTORY

The American Revolution

The American Revolution (1775-1783) was a war for freedom, fought between the 13 American colonies and Great Britain, which ruled the colonies at the time. The American colonists were unhappy because Britain made them pay high taxes and they had no say in British government decisions. The colonists (those in America) wanted to make their own laws and be treated fairly. In 1775, fighting began between colonists and British soldiers. The war lasted for several years. The Americans didn't have as many soldiers or weapons as the British, but they knew the land better and had help from countries like France. In 1783, a peace treaty was signed, and Britain officially recognised the United States as an independent nation.

The French Revolution

The French Revolution (1789-1799) was a revolution against King Louis XVI. Most ordinary people were poor, paid high taxes, and had very little power. Meanwhile, the king, nobles, and rich church leaders had a lot of money and didn't pay much tax. In 1789, people in Paris attacked a prison called the Bastille. The revolutionaries created new rules that said everyone should be equal and have the same rights, no matter their birth or wealth. After the king was executed, France became a republic, meaning there was no king and the people chose their leaders. The old system, where the rich had all the power, was ended. However, the revolution became very violent at times, especially during the Reign of Terror, when many people were executed.

The Haitian Revolution

The Haitian Revolution (1791–1804) was a successful slave revolt against French colonial rule in Saint-Domingue, resulting in the creation of Haiti, the first independent black republic. Led by figures like Toussaint Louverture and later Jean-Jacques Dessalines, the enslaved population fought against harsh conditions, the French army, and competing European powers like Spain and Britain. The revolution was inspired by the French Revolution's ideals of liberty and equality, and its success led to the abolition of slavery and established Haiti as the second independent nation in the Americas.

The British Political Revolution

In the early 1800s, the way Britain chose its Members of Parliament (MPs) was very unfair. Many people could not vote, and some towns with hardly any people still got to choose MPs, while big new cities had no MPs at all. People began to demand change, and this led to the Reform Act of 1832. The Peterloo Massacre (August 1810) was a peaceful protest where an estimated 60,000-80,000 people gathered to demand parliamentary reform, including the right to vote. Local magistrates, fearing a riot, sent armed cavalry to arrest the leaders, and the troops attacked the crowd, killing 10 to 20 people and injuring up to 700. The incident encouraged more protest for reform in Britain. As a result, The Great Reform Act was passed and meant that many rotten boroughs lost their MPs, big cities got MPs for the first time and gave more men the vote (about 1 in 5 adult men.).

WEEK 2 SPANISH

Adjectives	
grande	big
pequeño/a	small
bonito	pretty/ nice
feo/a	ugly
histórico/a	historic
limpio/a	clean
sucio/a	dirty
tranquilo/a	peaceful
industrial	industrial
agradable	pleasant
Quantifiers	
muy	Very
demasiado	Тоо
bastante	Quite
un poco	A bit
Comparisons	
Prefiero vivir en	I prefer to live in
el campo	the countryside
la ciudad	the city
porque es	because it is
másque	morethan
menosque	lessthank
mejor que	betterthan
peor que	worse than

WEEK 3 ENGLISH LITERATURE

Methods and Word Classes

<u>Terminology</u>	<u>Definition</u>	<u>Example</u>
Metaphor	An object used in place of another for symbolic purposes	The sun was an angry God
Simile	Comparing an object to another to develop a description	He was like a soldier
Alliteration	The repetition of the first letter in a line of words for effect	A h eavy, h orrid breath h eaves from his body
Repetition	The repeating of a certain word/phrase.	Blood, blood and more blood
Onomatopoeia	Words used to represent a sound.	BOOM
Personification	Giving an inanimate object a human-like feature.	The wind roars
Noun	The name of a particular person, place or thing (common, proper, abstract etc.)	table (common) Edward (proper) Jealousy (abstract)
Verb	A word showing an action.	Drum stick knock
Adverb	A word modifying an action/showing how the action is being done.	The wind roars loudly

WEEK 3 ENGLISH LANGUAGE

Sentence and Structural Features

<u>Terminology</u>	<u>Definition</u>	<u>Example</u>
Simple Sentence	A single idea.	I love pizza.
Compound Sentence	Two ideas joined by a conjunction (FANBOYS).	I love pizza, but I also enjoy pasta.
Complex Sentence	A main clause and a subordinate clause.	I love pizza because it tastes amazing.
Paragraph	A group of sentences about one topic.	School trips are great fun. They allow students to explore new places, learn outside the classroom, and make memories.
Topic Sentence	The main idea of a paragraph.	Recycling is essential for protecting the planet.
Contrast	Showing differences between two ideas.	The forest was peaceful, but the city was noisy.
Repetition	Using the same word or phrase multiple times.	Stay strong. Stay focused. Stay determined.
Juxtaposition	Placing opposite ideas side by side for effect.	The bright sun lit up the dark, gloomy cave.

MATHEMATICS

Inequalities

Useful definitions:

- < less than
- > greater than
- ≤ less than or equal to
- ≥ greater than or equal to

Inequalities can be used to compare amounts, including money when you are comparing values in pounds and pence.

£8.70 < 8,700 p

Integer Solution Examples:

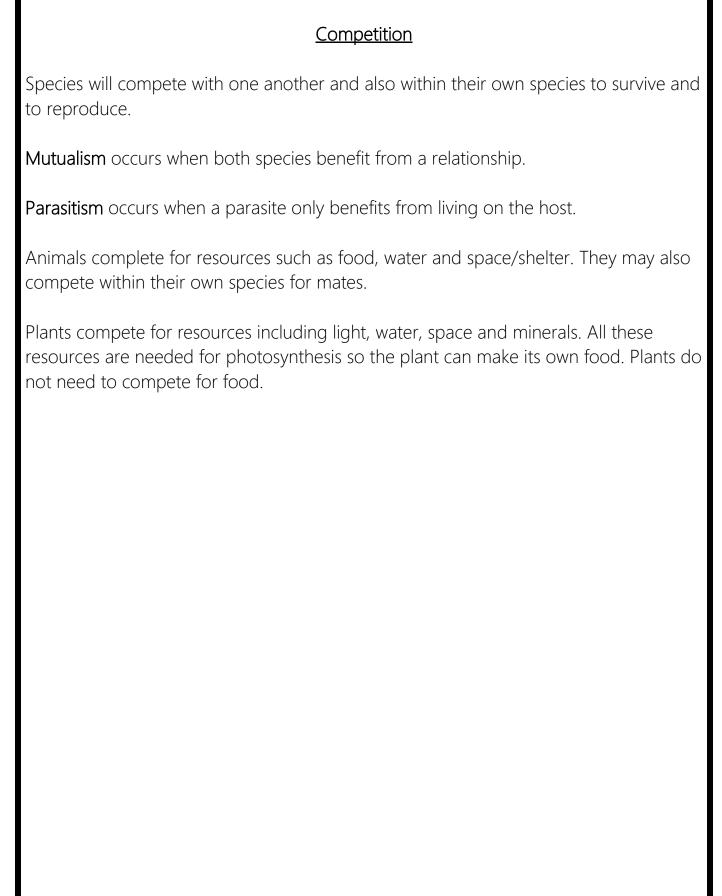
x < 7 this statement says "x is less than 7" therefore integers that are solutions can be 6, 5, 4, 3, ...

 $x \ge 4$ this statement says "x is greater than or equal to 4" therefore integers that are solutions can be 4, 5, 6, 7, ...

Solving Inequalities:

Solve $x + 4 > 10$	Solve $3x + 4 \le 10$	Solve $10 < 3x + 4 \le 40$
x + 4 > 10 $-4 - 4$ $x > 6$	$3x + 4 \le 10$ $-4 - 4$ $3x \le 6$ $\div 3 \div 3$	$10 < 3x + 4 \le 40$ $-4 \qquad -4 \qquad -4$ $6 < 3x \le 36$ $\div 3 \qquad \div 3 \qquad \div 3$ $2 < x \qquad \le 12$
	$x \leq 2$	

WEEK 3 BIOLOGY



WEEK 3 CHEMISTRY

<u>Dissolving</u>

Dissolving is the process of mixing a soluble solute into a solvent until it is fully incorporated to create a solution.

Solutes dissolve faster with increased temperature, greater surface area and stirring.

Key Terms:

Key Term	Definition
Soluble	Able to be dissolved.
Solvent	The substance that something dissolves in.
Solute	The substance that is dissolved.
Solution	A liquid containing a dissolved solid or another liquid.

WEEK 3 PHSYICS

Energy Pathways

Heating via Particle Movement

Energy is transferred by conduction or convection because of a temperature difference between two objects.

Q2 Use the following words to complete the paragraph below.

 thermal energy temperature cooler hotter
When is transferred between objects of different
temperatures, it is transferred from the object to the
object. When the two objects reach
equilibrium it means they are at the same

- Q3 Sharne puts an **ice cube** on a hot plate. Complete the following sentences by circling the correct word(s) in brackets.
 - a) Particles in the (ice cube / plate) vibrate more than the particles in the (ice cube / plate).
 - b) Particles in the (ice cube / plate) transfer energy to particles in the (ice cube / plate).
 - c) The ice cube (loses / gains) energy and starts to (cool down / heat up).
 - d) The plate (loses / gains) energy and starts to (cool down / heat up).

Heating via Radiation

Energy is transferred by waves.



WEEK 3 GEOGRAPHY

Demographic Transition Model

Birth rate:

The number of people born in a year, measured for every thousands of the population.

Death rate:

The number of people who die in a year, measured for every thousands of the population.

Demographic Transition Model (DTM):

A general model showing how total populations, birth rates, death rates and natural increase/decrease change over time. After studying census data, demographers discovered that a country's population growth rate passes through different stages as it develops economically.

Stage	Description
Stage 1	 Large numbers of people starve due to famine and civil war. The water supply is limited and often unsafe.
Stage 2	 The Industrial Revolution brings improvements in farming and food supply. There is a developed network if hospitals, a sewage system and refuse collection. Couples have large families because many children die in early childhood. Few schools are available. Girls are excluded from education and marry young. Clean Drinking water is freely available.
Stage 3	 The role of women in society changes as girls go to school and more women have opportunities for paid employment. Many people enjoy the benefits of well-paid luxury jobs and take holidays. Couples choose to limit the number of children they have to afford the lifestyle. There is an increase in awareness and availability of contraception and family planning services.
Stage 4	Life expectancy increases, with more people living into old age.

WEEK 3 HISTORY

Long Term Causes of WW1

<u>Alliances</u>

Germany, Austria-Hungary and Italy signed the Triple Alliance in 1882. In 1907 Britain, France and Russia signed the Triple Entente.

The intention of these alliances was to act as a deterrent towards aggression. A country knew that to start a war would invite a response from an entire alliance. However, if this deterrent did not work, it also ran the risk of dragging all the countries into a war, even if they were not directly involved in the initial events.

Militarism

Militarism is the idea that a nation should increase the size of their army and military capabilities in order to protect or promote its interests. At the time, Britain had the world's strongest navy. The ruler of Germany, Kaiser Wilhelm, wanted to build a navy that was bigger and stronger than Britain. This started a naval and arms manufacturing race and further increased the tensions between the two nations.

Imperialism

Imperialism is the claiming of another territory as one's own. In the 19th century, this was seen as an acceptable practice by the European powers. Britain had an empire that covered one quarter of the world map. Germany wanted to rival Britain and have an empire of its own. By the start of the 20th century much of Africa had already been seized, so German attempts to claim land could cause problems with other nations.

Personal Development

Protected Characteristics

Age	People cannot be treated unfairly because they are young or old. Everyone deserves respect, no matter their age	AGE
Disability	People with physical or mental disabilities must be treated fairly, with reasonable adjustments made to support them in school, work, and life.	6 DISABILITY
Gender Reassignment	A person is considered to be <i>transitioning</i> if they change their gender through actions like changing their name, pronouns, appearance, or having medical treatment to match their identity.	GENDER REASSIGNMENT
Marriage and Civil Partnership	People must be treated equally whether they are married, in a civil partnership, or single.	MANDONAL AND CICK, ANTONOMINA
Pregnancy and Maternity	Pregnant people and new parents must not be treated unfairly because they are having or have had a baby.	PREGRANNCY AND MATERNITY
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).	RACE
Religion or Belief	Everyone has the right to follow their religion or beliefs, or to have no religion, without discrimination.	RALAGION OR RELAGIO
Sex	People must not be treated unfairly because they are biologically male or female.	98

ICT

Digital Footprint

Digital Footprint	The trail of information you leave online.
Privacy Settings	Tools that control who can see your posts and information.
Cyberbullying	Bullying that happens through messages, social media or online platforms.
Posts	Anything you upload or share online, like photos, comments or videos.
Employers	People who hire staff and may look at your online activity before offering a job.
Reputation	The impression people form about you based on what they find online.
Permanence	Information that stays online and can be difficult or impossible to fully remove.
Personal Information	Details about you such as your name, school, location or contact info – things that random people shouldn't know!

WEEK 3 **Art and Design**

Observational Drawing: Hints and Tips

1. Look More Than You Draw 2. Start with Basic Shapes Spend time looking at the Almost everything can be broken into: object before putting pencil to Circles paper. Ovals • A good rule: Look for 3 seconds, draw for 1 second. Squares Rectangles Drawing is seeing, not **Triangles** guessing. Lightly sketch these shapes first. **Do not start with details**—get the big shapes right, then build on them. 3. Draw Lightly at the Beginning 4. Compare Sizes and Distances Use a soft, light pencil Consider: pressure. You can adjust mistakes easily Which part is bigger? Which part is wider or longer? without leaving dark marks. How far apart are shapes? Press darker only when you are sure. Use the pencil as a measuring tool: Arm straight Thumb marking size Compare proportions on your paper 5. Look at Angles 6. Work from general to Specific Instead of thinking "the bottle leans a bit," 1. Big shapes look for exact angles: 2. Smaller shapes 3. **Details** (texture, patterns, • Hold your pencil up and match highlights) the angle of the object • Then copy that angle on your

This stops everything looking too

straight or "made up".

WEEK 3 SPANISH

In the future	
¿Dónde te gustaría vivir en el futuro?	Where would you like to live in the
	future?
En el futuro	In the future
Cuando sea mayor	When I am older
Me gustaría vivir	I would like to live
Me encantaría vivir	I would love to live
Quiero vivir	I want to live
porque	because
es	It is
puede ser	It can be
másque	morethan
menosque	less than

WEEK 4 FNGUSH LITERATURE

<u>Refugees</u>

Key Terms

A refugee

A refugee is someone who has been forced to flee his or her home because of war, violence or persecution, often without warning. They are also given protections under international laws and conventions and lifesaving support from aid agencies.

An asylum seeker

An asylum seeker is someone who is also seeking international protection from dangers in his or her home country, but whose claim for refugee status hasn't been determined legally. Asylum seekers must apply for protection in the country of destination, but it isn't always granted.

Some of the reasons why people may seek asylum in another country:

- Healthcare
- Discrimination
- War
- Lack of rights
- Climate change
- Natural disasters
- Repression
- Poverty
- A better life
- Disease
- Lack of opportunities

ENGLISH LANGUAGE

Literary Devices

Protagonist

The main character in a story, usually the hero or the one we are meant to care about the most.

Example: Harry Potter in the Harry Potter series.

Antagonist

The character or force that works against the protagonist, creating problems or challenges.

Example: Voldemort in the Harry Potter series.

Foreshadowing

When the author gives clues or hints about what might happen later in the story. *Example: A character looking nervously at storm clouds could hint at an upcoming storm.*

Flashback

A moment in the story when the writer takes us back in time to show something that happened earlier.

Example: A character remembering their childhood.

Theme

The main idea or message of a story. It's what the writer wants you to think about or learn.

Example: The theme of friendship in the book Wonder.

Mood

The feeling or atmosphere the writer creates in the story. It makes the reader feel happy, sad, scared, or excited.

Example: A spooky forest setting creates a scary mood.

Tone

The writer's attitude toward the subject or audience, shown through the way they write.

Example: A funny tone makes the writing feel light and humorous.

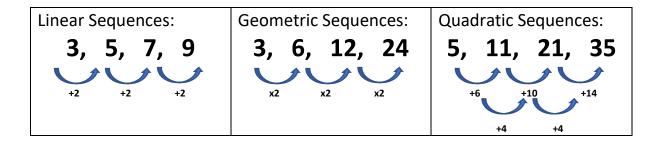
<u>WEEK 4</u>

MATHEMATICS

<u>Sequences</u>

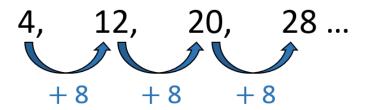
Useful definitions:

Linear sequence – a sequence with a constant addition or subtraction pattern. **Geometric sequence** – a sequence with a constant multiplication pattern **Quadratic sequence** – a sequence that includes n². They do not have an equal first difference but the second differences are equal.



Finding the nth term:

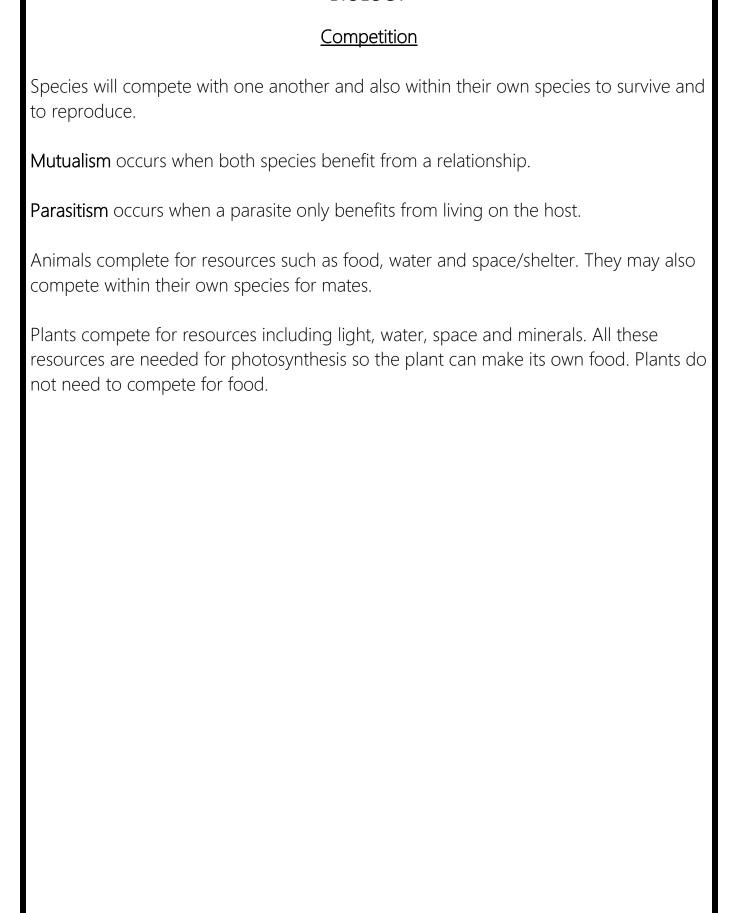
Find the rule for the n^{th} term of the sequence.



n	1	2	3	4	
8n	8	16	24	32	
8n - 4	4	12	20	28	_4

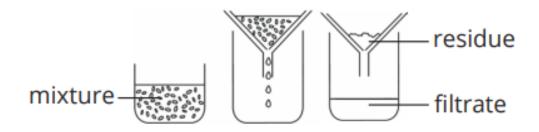
The n^{th} term of the sequence is 8n-4

WEEK 4 BIOLOGY



WEEK 4 CHEMISTRY

Filtration



This method is used to separate an insoluble solid from a liquid. The solution is passed through a filter paper and a funnel.

The residue remains in the filter paper, and the part which passes through the filter is called the filtrate. A mixture of sand and water can be separated by filtration.

Separating Rock Salt

Rock salt is a mixture of sand and salt. Sand is insoluble and salt is soluble, which means they can be separated easily using several separation techniques:

- 1) Create a solution of rock salt with water. Only the salt will dissolve into the water.
- 2) Filter this solution. The insoluble sand will collect as residue in the filter paper. The salt will pass through, dissolved in the water. The filtrate collected is a salt water solution.
- 3) Heat the salt water solution, evaporation or simple distillation can be used to collect either the salt crystals or the water.

WEEK 4 PHYSICS

Energy Pathways

Heating via Radiation

Energy is transferred by waves.



Fill in the gaps in the sentences.

We (can/cannot) see infrared radiation with our	eyes.
The Sun (does not/does) emit infrared radiation	ı .
Infrared radiation (can/cannot) travel through e	mpty space.
Dark surfaces (absorb/attract) infrared radiation	
More infrared radiation is emitted by (hotter/co	oler) objects.
Shiny surfaces (reflect/refract) infrared radiation	on well.

WEEK 4 GEOGRAPHY

Key Terms

Overpopulation:	Too	many	peopl	е	living i	in a	n area	for	carrying	capacity	of its
environment.											

Underpopulation: A region or country where there are not enough people to make best use of the resources of an area.

When a country is under-populated, it doesn't have enough people to do all the jobs needed. This can cause economic problems if there are not enough workers to produce goods for sale or to complete services.

Where a country is over-populated, it has too many people and not enough resources to maintain a reasonable standard of living, which slows down development.

Governments in different countries around the world are developing strategies to control their populations.

WEEK 4 Art and Design

Creating Tone in Pencil: Hints and Tips

1. Use a range of pencil pressure	2. Hold your pencil differently for different effects
 Light pressure = light tones Medium pressure = mid tones Harder pressure = dark tones 	 Hold near the tip for detailed, dark, controlled shading. Hold further back for softer, lighter shading. Use the side of the pencil lead for smooth shading.
3. Build tones slowly	4. Keep your stroke direction consistent
Good shading is done in layers:	Pick a direction and stick with it:
 Start very lightly Add more layers to build darker areas Avoid pressing too hard too early—it's harder to fix mistakes. 	 Horizontal Vertical Diagonal Mixing too many directions can make shading look messy.
5. Overlap your strokes	6. Use Different Shading Techniques
To avoid patchy shading:	Hatching:- Lines in one direction.
 Slightly overlap each stroke Work steadily and evenly Blend gently by layering more strokes 	Cross-Hatching: - Lines crossing over each other. Stippling: - Dots used to build tone (slow but effective). Blended Shading: - Smooth shading using soft layers (can blend with tissue or just the pencil).
7. Look for the Light Source	10. Smooth Your Tones
Tone depends on where the light is coming from: Areas facing the light = lighter Areas facing away = darker Shadows fall opposite the light	For smoother shading: Shade slowly Use small, controlled movements Avoid scribbling Build layers instead of one heavy coat
	Optional tools: Tissue Blending stump (But never use your finger—it adds oils to the paper.)

Week 4 HISTORY

Empire: A group of countries under a single authority.

Nationalism: The practice of devotion to your country.

Independence: Free from control of another person or country.

Alliances: A union between countries.

Imperialism: The desire for an empire.

Propaganda: Information used to promote a point of view.

Conscription: A legal requirement for all single men aged 18 to 41 to undertake military service.

Rationing: The controlled distribution of resources, goods and services so everyone has enough to survive

WEEK 4 SPANISH

	,
Hay	There is/ there are
Hay mucho que hacer	There is lots to do
Tiene	It has
tiendas	shops
bosques	forests
transporte bueno	good transport
cines	Cinemas
Zonas verdes	Green areas
trabajo	Work
basura	rubbish
cafeterías	Coffee shops
restaurantes	restaurants
Las ventajas son	the advantages are
Las desventajas son	the disadvantages are
Lo bueno es	the good thing is
Lo malo es	the bad thing is

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.	1111
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.	HDP/IDUAL Indigr
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.	METINAL METINA
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.	

ENGLISH LITERATURE

Poetic Devices

Terminology	Definition
Enjambment	When a line carries onto the next without interruption
Caesura	The use of punctuation in the middle of a line
Volta	A sudden turning point in a poem
Rhetorical question	A question which does not require an answer
Direct address	Speaking directly to the reader
Stanza	The equivalent of a paragraph in a poem
End-stop	The use of a full-stop or comma at the end of a line
Syllable	Single units of speech – forming a word
Rhythm	The flow of the poem

ENGLISH LANGUAGE

Key Vocabulary

Pathetic Fallacy

When the weather or nature reflects the emotions or mood of a story.

Example: Dark clouds and rain during a sad scene.

Defamiliarization

When something ordinary is described in a strange or unusual way to make the reader see it differently.

Example: Describing a car as "a growling beast of metal and glass."

Personification

Giving human qualities to non-human things.

Example: "The wind whispered through the trees."

Simile

Comparing two things using "like" or "as" to make a description more vivid.

Example: "Her smile was as bright as the sun."

Metaphor

Saying something is something else to make a strong comparison.

Example: "He was a lion in battle."

Symbolism

When something represents a bigger idea or concept.

Example: A red rose representing love.

Imagery

Using detailed descriptions that appeal to the senses to create a picture in the reader's mind.

Example: "The crisp autumn leaves crunched underfoot, filling the air with their earthy scent."

Motif

A repeated idea, object, or image that keeps appearing in a story to reinforce a theme. Example: A clock ticking in a story about time running out.

MATHEMATICS

Law of Indices

Useful definitions:

Base – the value to which a power is attached. For example: 3^2 the base is 3, x^2 the base is x.

Multiplying the Indices

When multiplying with indices, you add the powers as long as they have the same base.

$$3^2 \times 3^4 = 3^6$$

$$x^7 \times x^2 \equiv x^9$$

$$3 \times 3 \times 3 \times 3 \times 3 \times 3$$

$$a^4 \times b^2 \times b^5 \times a \equiv a^5b^7$$

Dividing with Indices

When dividing with indices, you subtract the powers as long as they have the same base

$$3^6 \div 3^4 = 3^2$$

$$\frac{3^{6}}{3^{4}} = \frac{\cancel{3} \times \cancel{3} \times \cancel{3} \times \cancel{3} \times \cancel{3} \times \cancel{3}}{\cancel{3} \times \cancel{3} \times \cancel{3} \times \cancel{3}}$$
$$= 3 \times 3$$

$$\frac{a^3b^2}{ab^2} \equiv \frac{\cancel{a} \times \cancel{a} \times \cancel{a} \times \cancel{b} \times \cancel{b}}{\cancel{a} \times \cancel{b} \times \cancel{b}}$$

$$\equiv a \times a$$

$$\equiv a^2$$

$$y^7 \div y^3 \equiv y^4$$

$$\frac{y^{7}}{y^{3}} \equiv \frac{\cancel{x} \times \cancel{x} \times \cancel{x} \times y \times y \times y \times y}{\cancel{x} \times \cancel{x} \times \cancel{x}}$$

$$\equiv y \times y \times y \times y$$

$$\frac{16a^3b^2}{4ab^2} \equiv \frac{\cancel{4} \times \cancel{4} \times \cancel{a} \times \cancel{a} \times \cancel{a} \times \cancel{b} \times \cancel{b}}{\cancel{4} \times \cancel{a} \times \cancel{b} \times \cancel{b}}$$

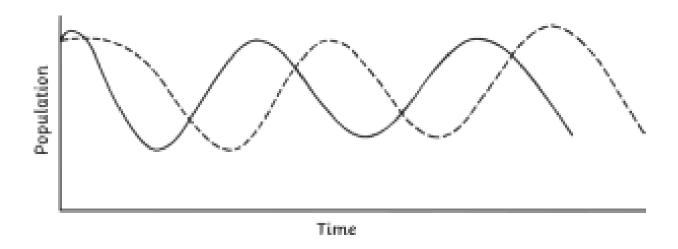
$$\equiv \frac{4 \times \cancel{a} \times \cancel{a}}{1}$$

$$\equiv 4a^2$$

WEEK 5 BIOLOGY

Populations of Predators and Prey

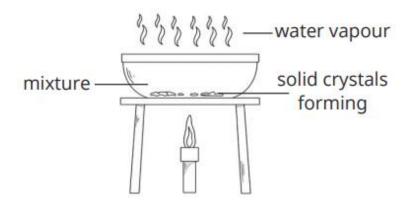
Populations of predators and prey increase and decrease in cycles. The size of the predator population depends on the size of the prey population and vice versa. Overall, there is a stable community.





WEEK 5 CHEMISTRY

Evaporation



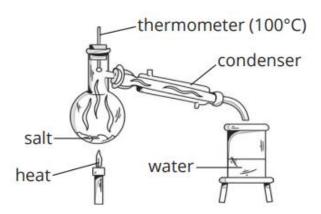
This method is used to separate a soluble solid from a solvent. The solution is heated, the liquid evaporates and the solid crystallises.

If the evaporation and crystallisation occur quickly, the crystals formed will grow rapidly and will be small.

If it can occur slowly, such as on a windowsill, then the crystals will have more time to form and be larger in size.

A solution of salt and water can be separated using the evaporation method.

<u>Distillation</u>



This method is used to separate a solvent from a solution. It can separate the same type of solution as in evaporation, e.g. salt water, but retrieving the other component of the mixture.

As the water is heated and evaporates from the flask, it flows upwards and into the condenser. The condenser is surrounded by cool water which causes the water vapour to condense back into a liquid. This flows down the tube and into the beaker. The water collected in the beaker is distilled water.

WEEK 5 PHYSICS

Energy Pathways

Work Done Electrically

Energy is transferred by a current when charges move due to a potential difference.



Work Done Mechanically

Energy is transferred by a force making something move through a distance.



WEEK 5 GEOGRAPHY

Damaging the Earth

Overpopulation: The idea that human populations are becoming too large to be sustained by the Earth.

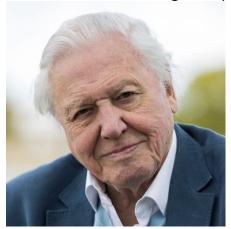
Overconsumption: Where the use of resources has outpaced the sustainable capacity of the Earth.

Mahatma Gandhi's Opinion



"Earth provides enough to satisfy every man's needs, but not every man's greed"

Sir David Attenborough's Opinion



"The fundamental source of... environmental problems is population growth. I can't think of a single problem that wouldn't be easier to solve if there were less people. In the time I've been making natural history programmes the population of the world has tripled."

Personal Development

Protected Characteristics

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Gender Reassignment	A person is considered to be <i>transitioning</i> if they change their gender through actions like changing their name, pronouns, appearance, or having medical treatment to match their identity.	GENDER PERASAGNMENT
Marriage and Civil Partnership	People must be treated equally whether they are married, in a civil partnership, or single.	MARCANE AND GGZ, AMTORISHO
Pregnancy and Maternity	Pregnant people and new parents must not be treated unfairly because they are having or have had a baby.	PREGNANCY AND MATERIALTY
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).	RACE
Religion or Belief	Everyone has the right to follow their religion or beliefs, or to have no religion, without discrimination.	PASILADION OR RECUEP
Sex	People must not be treated unfairly because they are biologically male or female.	98

WEEK 5 Art and Design

Tonal Ranges in Watercolour: Hints and Tips

- 1. Start with a light wash
 - Mix a small amount of paint with a lot of water.
 - This creates the **lightest tone**.
 - Always begin light—it's much easier to add more tone than to remove it.
- 2. Add more paint to increase the tone. To make tones darker, gradually add:
 - A little more paint
 - Less water

As the paint-to-water ratio increases, your tones get **mid-tone** \rightarrow **darker** \rightarrow **darkest**.

- 3. Test Your Colour Before Using It
 - Always test your tone on scrap paper first.
 - Watercolour dries **lighter**, so test the tone before committing to the page.
- 4. Work from light to dark as watercolour works best when layered. Going dark first can ruin your tonal range.
 - 1. Paint your light wash first
 - 2. Add mid-tones once dry
 - 3. Add darkest tones last
- 5. Let each layer dry before adding the next layer. This is called **glazing**. This helps create **smooth gradients** and prevents unwanted mixing.
 - · Paint a layer
 - Let it dry
 - Add another transparent layer to build tone
- 6. Control water on your brush. Too much water means:
 - Weak colour. Unwanted puddles. Cauliflower/bloom marks

Too little water means:

Patchy tone. Streaks. Less blending

Tap the brush on a tissue to control water levels.

WEEK 5 HISTORY

Propaganda is used to try to make people think a certain way.

Stories about bad things the Germans had done were told to make people angry and frightened so everyone would want Britain to beat them in the war. But many tales were untrue and Germany told the same stories about Britain.

What the public thought about the war really mattered.

The government needed to recruit lots of soldiers and wanted people to support them.

Posters were printed that made the army look exciting.

Other posters told men it was their duty to join, that they would feel proud if they did and guilty or embarrassed if they didn't join.

At first journalists were not allowed to report from the Western Front.

Many found secret ways to travel there. One journalist, Basil Clarke, hid on a train full of French soldiers.

In April 1915 the ban was stopped and some journalists went to the front.

In August 1916, a famous British film was shown in cinemas about The Battle of the Somme.

A few parts of the film were acted but most of it was real.

Around one million people saw the film in the six weeks after it was released.

It was the first-time people at home could see soldiers in the trenches, guns firing and wounded men.

Filming and reporting from the Front let people find out what was really happening in the war.

WEEK 5 SPANISH

Daily Routine	
¿Cómo es tu rutina diaria?	What is your daily routine like?
Me despierto	I wake up
Me levanto	I get up
Me ducho	I have a shower
Me visto	I get dressed
desayuno	I have breakfast
Me lavo los dientes	I brush my teeth
Voy al colegio	I go to school
Como	I have lunch
Ceno	I have tea (evening meal)
Hago mis deberes	I do my homework
Veo la tele	I watch TV
Me acuesto	I go to bed
4	

WEEK 6 ENGLISH LITERATURE

Other Cultures Key Terms

Key Term	Definition
Fairy Tale	A story, often intended for children, that features fanciful and wondrous characters such as elves, goblins, wizards, and even, but not necessarily, fairies.
Refugee	A person who has been forced to leave their country in order to escape war, persecution, or natural disaster.
Communism	A political system where property is owned by the community and each person contributes and receives according to their ability and needs.
Ethos	A held attitude or belief.
American Dream	An ethos (belief) where any American can achieve their dreams and great success with belief and hard work.

WEEK 6 ENGLISH LANGUAGE

Writing Skills

Purpose: Why a text is written (to inform, persuade, entertain). *Example: A leaflet might persuade you to visit a theme park.*

Audience: Who the text is for.

Example: A children's book uses simple language for young readers.

Formal Language: Polite and professional writing.

Example: "Dear Sir/Madam, I am writing to apply for the role."

Informal Language: Casual and chatty writing.

Example: "Hey, what's up? Wanna hang out later?"

Tone: The mood or attitude in the writing.

Example: A sad tone: "The empty streets felt lonely."

Emotive Language: Words that create strong emotions. *Example*: "The innocent puppy whimpered in pain."

Text Types and Structures

Narrative: A story.

Example: Novels or short stories.

Descriptive Writing: Detailed writing that creates a picture. *Example*: "The beach glistened under the golden sunlight."

Persuasive Writing: Writing that tries to convince someone.

Example: "You should recycle to save the planet!"

Expository Writing: Explains or informs.

Example: A textbook explaining photosynthesis.

MATHEMATICS

Laws of Indices

What is a power of a power?

$$(x^2)^3$$

How do we calculate it?

$$x^{2} \equiv x \times x$$

$$(x^2)^{3} \equiv x^2 \times x^2 \times x^2 \equiv x^6$$

When brackets are involved, you multiply the powers.

$$(x^{7})^{2} \equiv x^{14}$$

$$(x^{7})^{3} \equiv x^{21}$$

$$(x^{7})^{4} \equiv x^{28}$$

$$(x^{7})^{5} \equiv x^{65}$$

$$(2r^3)^5 \equiv 2r^3 \times 2r^3 \times 2r^3 \times 2r^3 \times 2r^3$$
$$\equiv 2 \times 2 \times 2 \times 2 \times 2 \times r^{15} \equiv 32r^{15}$$

$$(2r^3)^5 \equiv 2^5(r^3)^5 \equiv 32r^{15}$$

WEEK 6 BIOLOGY

Variation

Variation maybe be due to differences in:

- The genes that have been inherited (genetic causes);
- The conditions in which they have developed (environmental causes);
- A combination of genes and the environment.

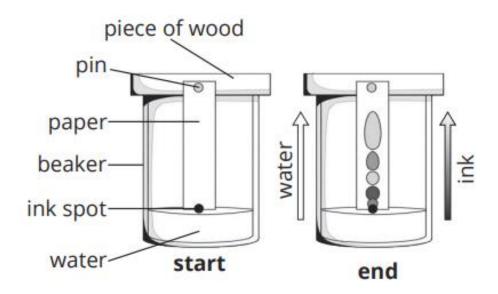
Evolution

All species of living things have evolved from simple life forms by natural selection.

- If a variant/characteristic is advantageous in an environment, then the individual will be better able to compete.
- This means they are more likely to survive and reproduce.
- Their offspring will inherit the advantageous allele.

WEEK 6 CHEMISTRY

Chromatography



Chromatography can be used to separate, for example, different dyes in ink. The colours are separated because they have varying solubilities.

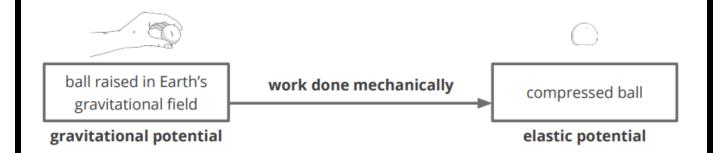
The separate inks are carried different distances up the stationary phase (filter paper) by the mobile phase (solvent).

WEEK 6 PHSYICS

Energy Transfers

Energy transfers can be displayed in an energy transfer diagram. The boxes identify the parts of the system where energy is stored. The type of energy store is labelled underneath each box. The arrows represent the pathways that transfer energy from one store to the next.

When energy is transferred, the total amount of energy is conserved because energy can only be stored or transferred. It cannot be created or destroyed.



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.	111
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.	INDOORDUAL LINEETT
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.	MCTANA, MCTANA
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.	

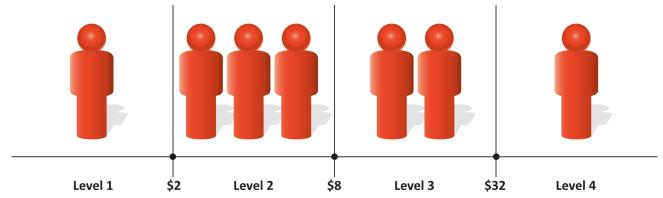
WEEK 6 GEOGRAPHY

Hans Rosling

In 2018 Hans Rosling published a book, Factfulness. It challenges our view of the world.

In the book he explains why he does not like the term 'developing countries'. Based on a lifelong study of world statistical data, Rosling believes it is more useful to divide the world into four income levels (see Image B). Each figure in the chart represents 1 billion people. The seven figures show how the current world population is spread across the four income levels. Human history started with everyone at Level 1.

Just 200 years ago 85 per cent of the world's population was still at Level 1. Today the majority are now spread across Levels 2 and 3, with the same range of standards of living as people in the UK and USA had in the 1950s.



Income per person in dollars per day adjusted for price differences

WEEK 6 Art and Design

Facial Proportions: Hints and Tips

1. Start with an oval (Not a circle)

- The head is shaped more like an egg than a circle.
- Draw lightly so you can adjust the shape as you go.

2. Divide the face in half

- Draw a vertical line down the centre.
- Draw a horizontal line across the middle.

3. Eyes are in the middle of the head

- The eyes sit halfway between the **top of the head** and the **chin**.
- Draw two eye shapes with **one eye-width of space** between them.
 - o You could fit a third invisible eye in the middle!

4. The bottom of the nose is halfway between eyes and chin

- Find the space between the eye line and the chin.
- Halfway down that space = where the **bottom of the nose** should go.
- This avoids noses being drawn too high or too low.

5. The ears line up with eyes and nose

- Top of the ears → level with the eyes
- Bottom of the ears → level with the bottom of the nose

This helps place the ears correctly instead of too high or too small.

6. The mouth sits one-third up from the chin

- The mouth line sits roughly one-third of the way between the **nose** and **chin**.
- Don't put it too close to the nose!

Width of the mouth:

• The corners of the mouth usually line up with the **centre of the eyes**.

WEEK 6 HISTORY

Defence of the realm Act 1914

The Act was designed to ensure the smooth running of the war effort. It provided legal means to:

- Protect ports and military bases from sabotage.
- Ensure that vital resources such as coal, iron and food were carefully monitored to prevent shortages.
- Take direct control of factories to ensure that they helped with the war effort.
- Prevent spying by ensuring that all non-British citizens were registered with the police.
- Ban acts such as taking pictures of military bases and purchasing binoculars without a licence.

Just as importantly, the Act allowed the government the ability to control and censor essential communications such as newspapers and radio.

While this would prevent the enemy from finding out the British war plan, it also meant that the population at home would not know the full facts about the war. Bad news was often supressed so that it did not damage public morale.

DORA had an impact on the everyday lives of normal citizens.

Pubs came under new legislation to stop workers from getting too drunk, as this could affect their ability to do their jobs.

- Pubs could only open for five and a half hours each day and had to close by 9pm.
- They were not allowed to open on a Sunday.
- Beer was watered down in order to weaken it
- Individuals were forbidden from buying rounds of drink for them and their friends.

WEEK 6 SPANISH

Telling the time	
A la una	At one o'clock
A las	At
A las dos	At 2 o'clock
A las seis	At 6 o'clock
A las siete	At 7 o'clock
A lasy cinco	At 5 past
A las Y diez	At 10 past
A lasy cuarto	At quarter past
A lasy veinte	At twenty past
A las y veinticinco	At twenty-five past
A las y media	At half past
to	menos
A las menos veinticinco	Twenty-five to
A lasmenos veinte	Twenty to
A las menos cuarto	Quarter to
A las menos diez	Ten to
A lasmenos cinco	Five to
mediodía	midday
medianoche	midnight
primero	Firstly
segundo	Secondly
luego	Then
Más tarde	Later
Por último	Finally
Opinions	
es	It is
útil	Useful
necesario	Necessary
importante	Important
práctico	Practical
difícil	difficult
No me importa	It doesn't matter
Lo odio	I hate it
¿Prefieres tu rutina durante la semana o el	Do you prefer your routine during the
fin de semana?	week or at the weekend?