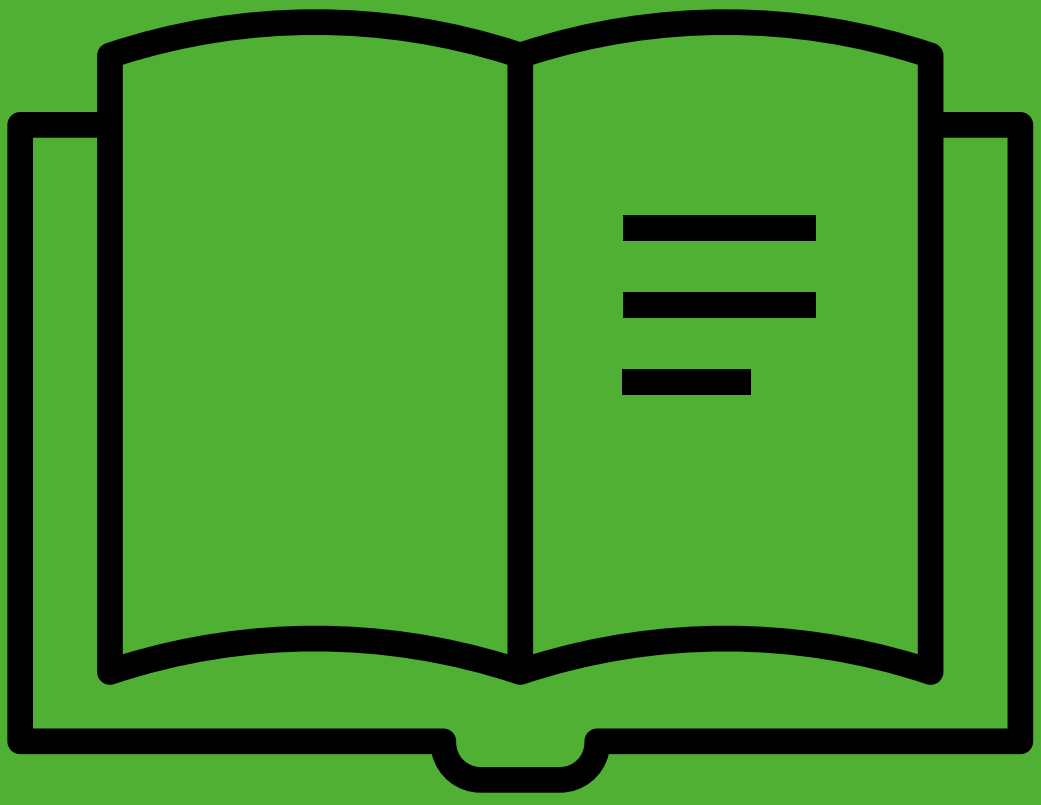
YEAR 9 BOOKLET 2

HOMEWORK



WHAT?WHEN?

KS3 Homework Timetable

Monday	Tuesday	Wednesday	Thursday	Friday
English	Maths	Science	DT	Art
Music	Drama	PE	History	Geography
	Computing	RPE	French	
Reading – see the list on the back of this booklet				

Week beginning	Box Number
5th January	1
12th January	2
19th January	3
26th January	4
2nd February	5
9th February	6
Half Term	
23rd February	7
2nd March	8
9th March	9
16th March	10
23rd March	11
30th March	12
Easter Break	

Sparx Maths
Homework

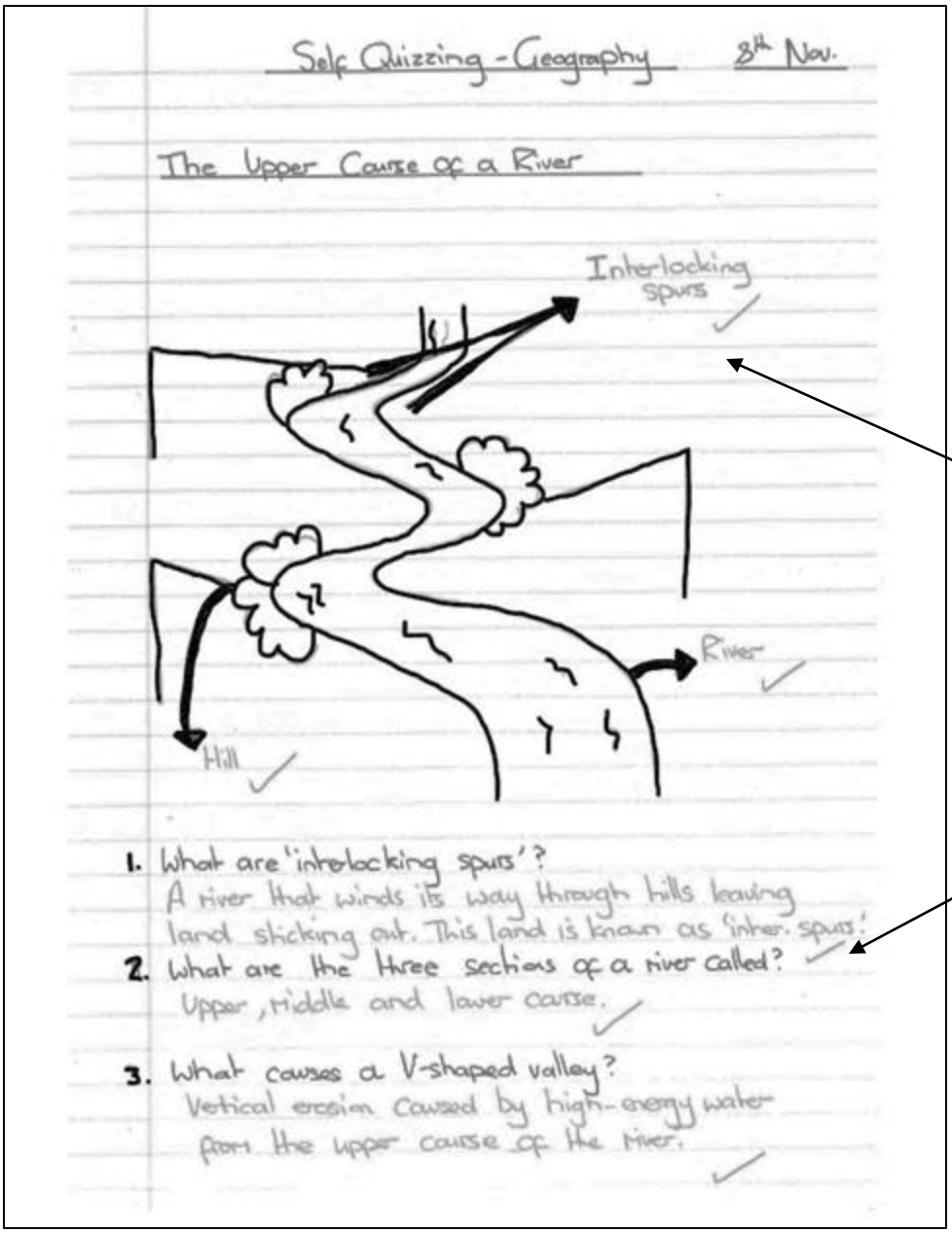
Aim to complete 30 minutes on the above platform each week.

What **Study Skill** will you be using? Remember, copying information across is not an efficient or beneficial way to learn the knowledge in this booklet.

STUDY SKILLS

How to ‘Self-Quiz’

Step 1: Read the information you need to learn.
Step 2: Generate questions for yourself from the information.
Step 3: Close your HW booklet and answer your quiz questions.
Step 4: Check that you have answered them correctly.



Self-quizzing questions can look like labelling a diagram

Self-quizzing questions can look like written Qs and Answers

STUDY SKILLS

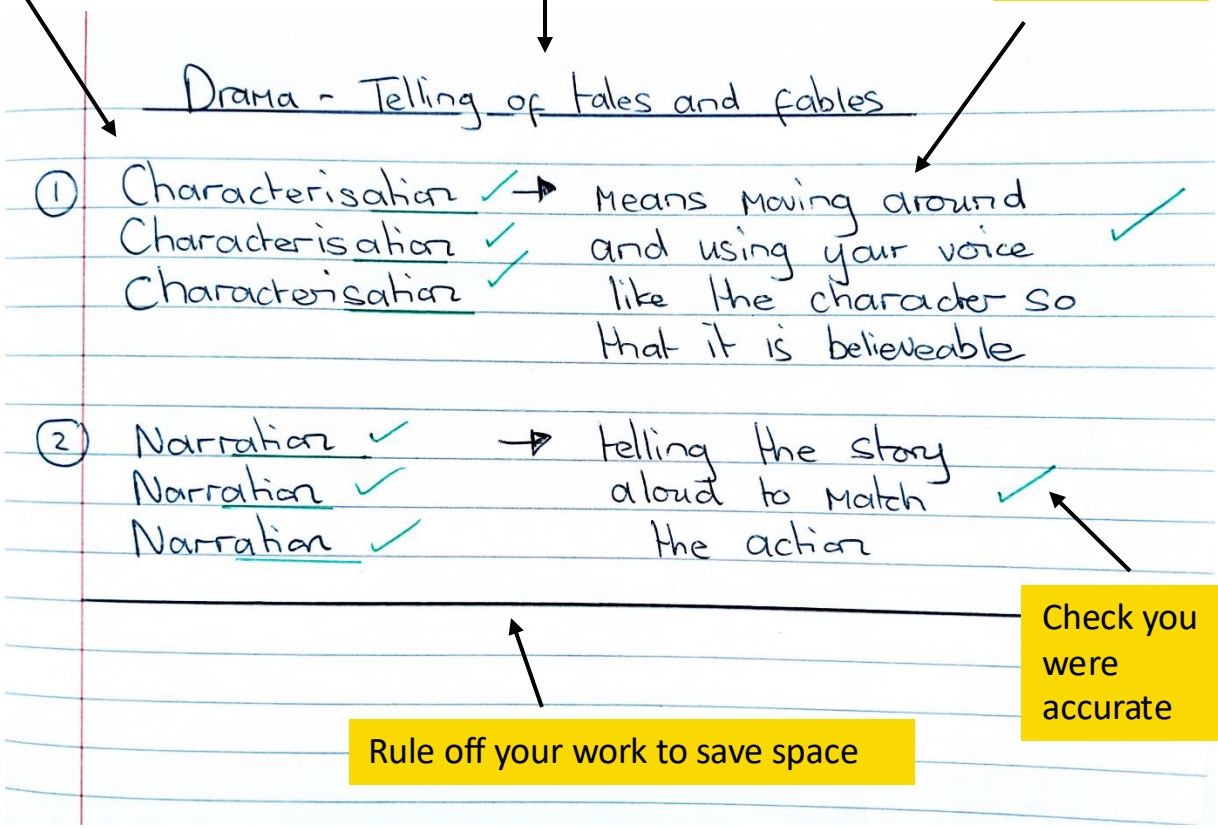
How to 'Define keywords'

Step 1: Read the information you need to learn.
Step 2: Look, Cover, Write, Check the spelling.
Step 3: Write out the definition of the word in your own words.
Step 4: Check you have been accurate.

Look, Cover, Write, Check the spelling

Remember to write a title for each subject

Write out a definition or use it in a sentence.



Check you were accurate

Rule off your work to save space

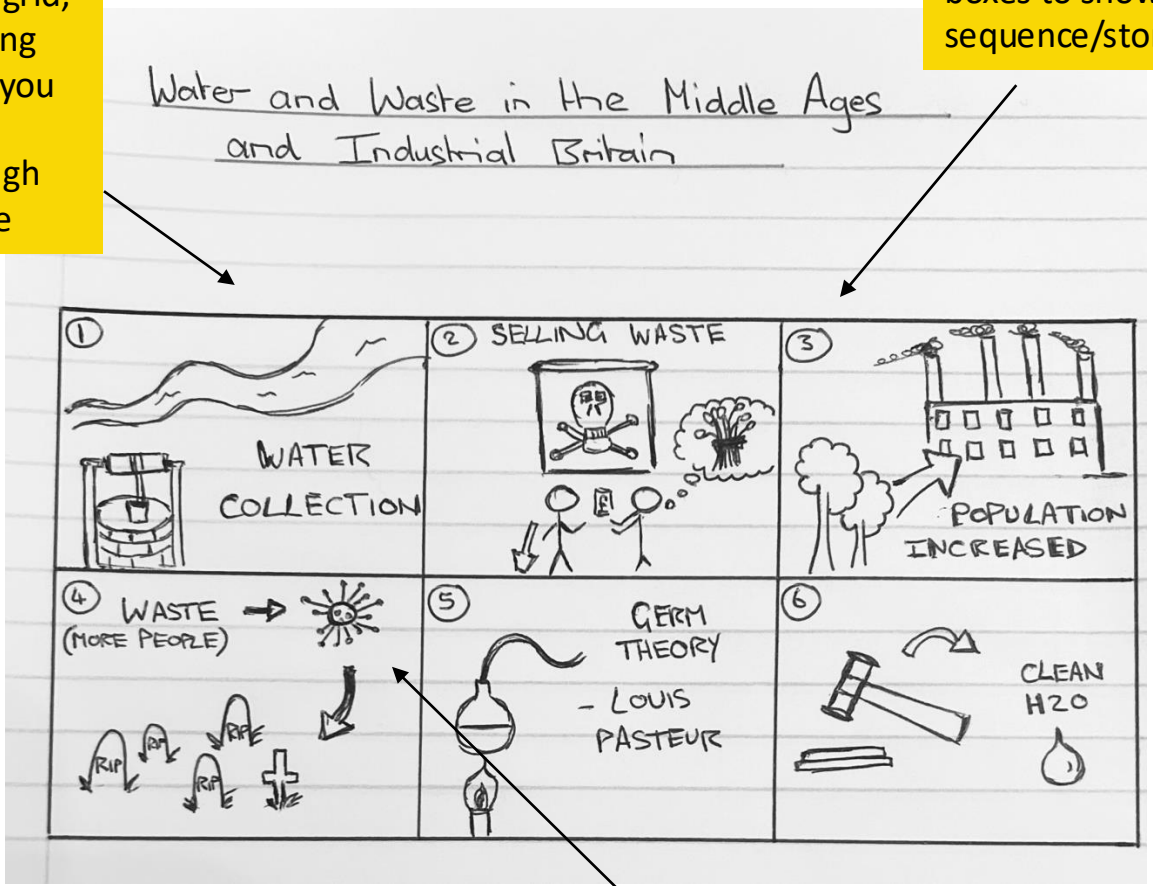
STUDY SKILLS

How to 'Illustrate'

Step 1: Read and number the information you need to learn.
Step 2: Draw out a grid with a box for each number.
Step 3: Turn the information into pictures or symbols that tell the story or sequence.
Step 4: Use the images you've drawn to help you tell someone else the information.

Draw out your grid, making sure you have enough space

Number your boxes to show the sequence/story



When you illustrate, you can use symbols, arrows and/or keywords

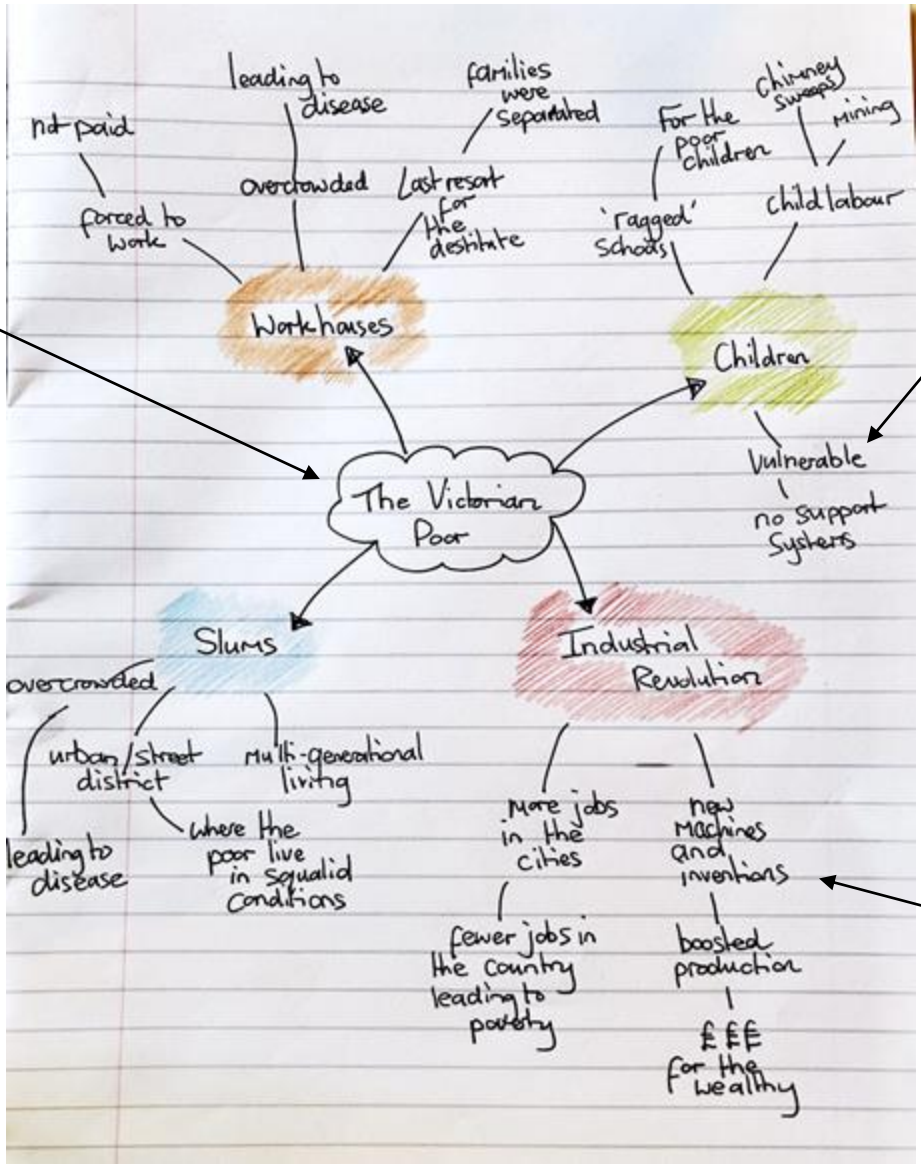
STUDY SKILLS

How to ‘Mind Map’

Step 1: Read the knowledge in the box carefully.
Step 2: Write the main topic in the centre.
Step 3: Write 3-4 sub-topics around the main topic.
Step 4: Expand each subject developing each branch (at least twice).

Main topic in the middle

3-4 sub-topics o the first branches



Each branch might be developed by examples, more detail, the impact or effect

Develop each branch as far as you can

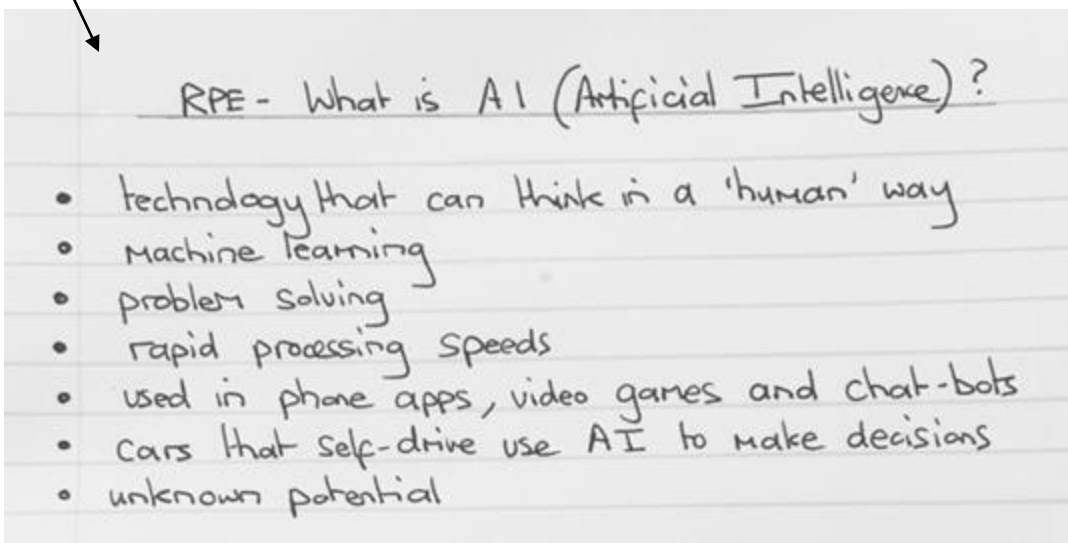
STUDY SKILLS

How to ‘Summarise’

Step 1: Read the knowledge carefully.
Step 2: Underline the key ideas and keywords.
Step 3: Using a mix of your own words and keywords in the text, reduce the text into a summary (a short paragraph or bullet points)

Summarising might look like turning a longer piece of text into bullet points of key information

Title for your subject



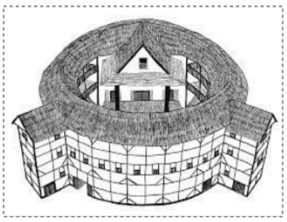
This should be a shorter version of the original, containing the most important information

STUDY SKILLS

4 ways of transforming knowledge

Example knowledge box from English

3. The Globe Theatre



- Plays were performed during daylight hours as there was no electricity.
- The Globe could hold up to 2500 people.
- The stage at The Globe was open on three sides.
- There was a trapdoor in the stage where ghosts or witches could appear.
- The stage was called an apron stage because it stuck out into the audience.
- The balcony above the stage was used for musicians or as a balcony in plays such as *Romeo and Juliet*.
- Women and girls were not allowed to act. Female characters were played by male actors.

1

Keywords Quizzing — The Globe

The Globe → a theatre that was round in shape

Trapdoor → a wooden hole in the stage where spooky characters would appear

Apron stage → the name of the part of the stage that juts out

Balcony → a high up balcony used for romantic scenes e.g. Romeo and Juliet

Actors → women were not permitted to perform on the stage

2

Self-Quiz — The Globe

1. Why were plays performed during daylight hours?
   There was no electricity.
2. What supernatural characters would use the trap door?
   Ghosts and witches
3. Why was the stage called an 'apron stage'?
   It stuck out.
4. What famous Shakespearean play featured a balcony?
   Romeo and Juliet
5. Who was not permitted to act on the stages?
   Girls or women

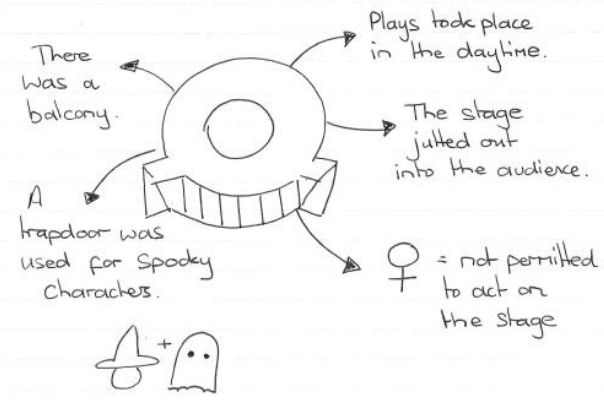
4

Summarising — The Globe

The Globe Theatre was given its name due to its round shape. The stage inside the theatre was an unusual shape and jutted out into the audience. This would have made the performances of Shakespeare's plays very intimate. Within the stage floor, there was a trapdoor. This was used for scary characters such as ghosts and witches to emerge. Perhaps this represented a version of Hell. A balcony was used, usually by musicians but also for key scenes. Most famously, it was used in 'Romeo and Juliet'.

3

Illustrate it — The Globe



English

1. Contextual information

Empire Windrush was built in Germany and launched in Hamburg on 13 December 1930. However, it was originally called the MV *Monte Rosa.*

It was used as a cruise ship, before being used by the Nazis to transport Jewish prisoners. Later it was captured by the British and renamed.

The ship HMT Empire Windrush arrived at the Port of Tilbury on 21 June 1948.

The ship carried 1027 passengers and two stowaways on a voyage from Jamaica to London.

Many people on board were **tailors, mechanics** and **carpenters**.

Britain needed more workers to rebuild the country after World War Two.
The British Government passed a new law allowing people from the Caribbean to live and work in Britain.
Britain used adverts to ask them to move to Britain.

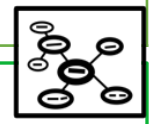
Just two days after the *Windrush* docked, a group of 11 Labour MPs wrote to Prime Minister Clement Attlee calling for a halt to the "influx of coloured people".

2. Features of a play

Word	Definition
Cross cutting	Where two or more scenes are performed on stage at the same time.
Symbolism	Where an object or character represents a larger, more abstract idea.
'Breaking the fourth wall'	When an actor acknowledges the presence of the audience
Stage directions	Instructions given to actors about how to deliver lines or move, or how a scene should be staged.
Microcosm	'A little world' - when a situation, place or society has the characteristics of something much larger.
Naturalism	Theatre that tries to reflect reality as much as possible through its dialogue and staging.
Climax	The turning point; the most tense part of the story
Resolution	The 'untying' of the play's problems at the end
Juxtaposition	Creating a deliberate contrast by placing two things side by side

3. Key vocabulary

Word	Definition
Diaspora	The spread of a people from their original homeland.
Immigration	The action of coming to live in a foreign country.
Xenophobia	The fear of foreigners or 'outsiders'
Bigotry	Having strong and unreasonable prejudices and opinions
Idealism	Believing in and chasing after perfection.
Segregation	Setting someone or something apart from others.
Stigma	A set of negative and unfair beliefs that a society or a group of people hold about something.



4. Andrea Levy

- Andrea Levy (1956-2014) was born in London to Jamaican parents.
- Her father came to Britain on the HMT Empire Windrush in 1948, with her mother following later that year.
- She grew up on a council estate and had a typical working-class upbringing.
- Her work explores racial and cultural identities.
- She wrote 'Small Island' in 2004.
- It was adapted for the stage by Helen Edmundson in 2019.

English

5 and 6. Ambitious Vocabulary

- **Naive:** a person/character who has or shows a lack of experience, judgment and is too ready to believe what they're told.
- **Optimistic:** having or showing hope for the future
- **Patronising:** when an individual treats you with apparent friendliness but is really viewing themselves as superior.
- **Conceited:** having or showing an excessively high opinion of oneself.
- **Prejudice:** preconceived opinion that is not based on reason or actual experience.

****

- **Cowardly:** afraid in a way that makes you unable to do what is right or expected
- **Delusional:** having false or unrealistic beliefs or opinions.
- **Resilient:** successfully adapting to difficult or challenging life experiences, especially through mental, emotional, and behavioural flexibility.
- **Tolerant:** willing to accept the beliefs, feelings, habits, or behaviours of another group, culture, etc. as legitimate even when they differ from one's own.
- **Disillusioned:** disappointed and unhappy because of discovering the truth about something or someone that you liked or respected.

7. Key Terminology for Poetry

Terminology	Meaning
simile	comparing using like/as
metaphor	making a comparison without using like/as
rhythm	the beat in a line
enjambment	the continuation of one line on to the next without a pause
caesura	a deliberate pause in the middle of a line
in media res	in the middle of the action
alliteration	repeating the initial letter sound in a phrase

8. The Six Steps for Approaching a Poem

1. Deep dive the title.
2. Number the lines.
3. Read the poem three times.
4. What is your initial impression?
5. What are the words and phrases that stand out?
6. What is the volta or turning point in the poem?

9. 'Pink Mist' by Owen Sheers

Key quotation:

'Raise your sights the brochure said.'

Inspired by 30 interviews with **retired servicemen** and their families.

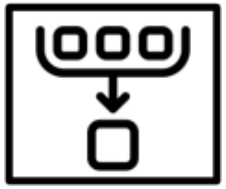
In early 2008, three young friends from **Bristol** decide to join the army and are deployed to the conflict in **Afghanistan.**

1. What reasons do people have to enlist in the Army?
2. What are the potential consequences for those that do enlist? Both positive and negative?

Post Traumatic Stress Disorder (PTSD) – A mental health condition triggered by a traumatic event. **Symptoms are:**

- Flashbacks
- Change in mood
- Easily frightened

Amputation – The loss or removal of a body part. It is life changing.



English

10. ‘Remains’ by Simon Armitage

Context

- The poem is set in Basra in Iraq.
- The poem comes from an anthology called “The Not Dead”.
- The poems in the anthology are based on the testimonies and experiences of ex-soldier.

Learn the terminology below:

Poet Laureate – a poet honorably chosen by the monarch or government to write for special occasions.
Colloquial language – informal, casual.
Enjambment – the continuation of lines onto the next.
Caesura – punctuation in the middle of a line.

Key quotations:

‘probably armed, possibly not.’

‘tosses his guts back into his body.’

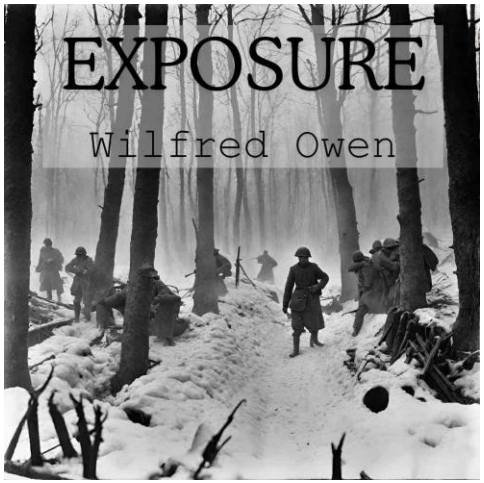
‘End of story. Except not really.’

‘his bloody life in my bloody hands.’

11. 'Exposure' by Wilfred Owen

New vocabulary:

Monotonous – dull, repetitive, lackinginterest.
Futile – pointless or useless.
Poignant – creating a sense of sadness orregret.
Invincible: cannot be defeated.



Structure and Form:

Present tense, first person plural e.g. our, we, us.
There is a regular rhyme scheme and repetitive five-line structure to the eight stanzas.

Key quotations:

‘But nothing happens.’
‘merciless iced east winds that knive us…’
‘rain soaks, and clouds sag stormy’
‘We hear the mad gusts tugging on the wire.’
‘Sudden successive bullets streak the silence.”

12. ‘Bayonet Charge’ by Ted Hughes

Context

Hughes wanted to highlight the brutality of trench warfare.
The poem was inspired by Wilfred Owen.
His father fought in World War 1.

Key Terminology:

In media res – the poem begins in the middle of action.
Patriotism - a love and devotion to your country.

Key quotations:

‘Bullets smacking the belly out of the air’ 'Stumbling across a field’
'He lugged a rifle numb as a smashed arm’
‘King, honour, human dignity, etcetera
Dropped like luxuries…'

Music

1. Electronic Dance Music

1960's – Dub: Taking vocal part out of a song and over dubbing in other sounds/effects creating remixes.

1970's – Disco/Funk: Music styles for dancing with increasing use of electronic Synths.

1980's – Synth Pop: Style mainly from Europe with mainly Synths

1990's – Rave: Dance style with lots of electronic sounds, catchy melodic riffs and fast tempo. Either no lyrics or very few, repeated lyrics.

2000's – Dubstep & Grime

2010's – House revival, Trap and Moombahton

2. Keywords

Sample	sampling is the reuse of a sound recording in another recording. This could be a melody, drum beat or any other recorded sound.
Beats Per Minute (BPM)	A way of measuring the tempo of a piece of music. Dance music often has a high BPM.
Beat	The beat is the basic measure of time that you would tap your feet to.

3. Keywords

Bass-line	The low-pitched instrumental part that gives dance music its drive and groove.
Four to the Floor	A technique where the drummer (or drum machine) just plays four kick drum beats in a bar of four.
Synthesizer	A fully electronic musical instrument that produces audio signals. The synthesizer is often a lead instrument in Dance tracks.

4. Keywords

Loop – A repeating section of recorded music

Break – When all the parts except one (usually the percussion) disappear.

Drop – Where a sudden change of rhythm occurs, typically followed by a build section

Layered Texture – Where a song builds up one instrument/part at a time.

Intro – The opening section of a piece.

Outro – The ending section of a piece of Music. Sometimes called the **Coda**

Music

5. Garage band

GARAGEBAND is a programme on Apple Mac computers which is similar to programmes used by many professional musicians.

DAW – Digital Audio Workspace. A computer programme that allows musicians to record their music. Garage band is an example of a DAW.

6. Editing and Producing

Fade in/out – When you edit the volume levels of a track(s) so that they gradually get louder or softer.

Panning – When you place or move a sound in one side of the stereo field (e.g., right or left side of headphones)

7. 1950's Rock 'n' Roll

1950's saw Rock 'n' Roll grow in popularity.

Rock 'n' Roll was **fast paced**, full of energy, had **catchy lyrics** and **guitar solos**.

The main instruments were **Electric Guitar, Drum kit, Piano, Bass and Vocals**.

The target audience for this music were teenagers.
Famous artists include **Elvis, Chuck Berry and Buddy Holly**.

8. British Invasion Music

As a group, British musicians came forward and started a new wave of British Rock and Roll/Pop music.

This new movement became known as **The British Invasion,** and it proved they make music just as well as America could.

The mass production of **Vinyl Records** and the increased development of television made it easier for bands to become successful both in Britain and around the world.

Music

9. The Beatles

One of the most famous British Invasion bands of all time.

The Beatles were 4 musicians from Liverpool.

John Lennon and Paul McCartney wrote the songs.

George Harrison was the guitarist and Ringo Starr was the Drummer.

After a successful career lasting the mid to late 1960's the band broke up in 1970.

10. Main Features

Dynamics - forte (loud) and fortissimo (very loud) in chorus.

Usually in 4/4 time. Drum beat alternating between bass and snare. Tempo fairly quick and upbeat.

Tonality was often major with simple chord progressions. Fairly slow harmonic pace with chords only changing once or twice per bar.

11. Main Features

Melody often very catchy, simple and repetitive. Conjunct melodies- easy to sing. Lots of riffs!

Texture usually thin during intro and gradually got thicker as it led into chorus

Structure usually verse-chorus form with a guitar solo

12. Typical Lineup

Guitar
Electric guitars played rhythm (chords) and lead (riffs).

Drum Kit
Acoustic kit playing a basic 4/4 beat alternating between bass and snare with hi hats in quavers. Also included fills and occasional drum solos.

Piano
Usually a piano or the Hammond organ also popular. Would play the chords/riffs.

Bass Guitar
Electric bass guitar, usually played the root note of the chord in a simple rhythm.

Mathematics

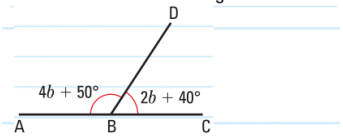
1. Solving Equations

Using equations to solve problems

You can solve problems in mathematics by setting up equations and solving them.

Example

In the diagram, ABC is a straight line.
Work out the size of angle DBC.



$4b + 50 + 2b + 40 = 180$ — Write an equation in terms of b, using the sum of the angles on a straight line = 180°.

$6b + 90 = 180$

$6b = 180 - 90$ — Collect the terms.

$6b = 90$

$b = 15$ — Divide both sides by 6.

angle DBC $= 2b + 40$

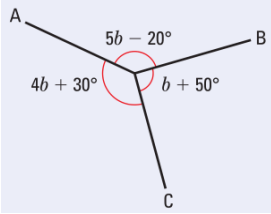
$= 2 \times 15 + 40$ — Substitute $b = 15$.

$= 30 + 40$

$= 70°$

Now try the following question.

The diagram shows three angles at a point.
Find the size of each angle.



2. Sequences

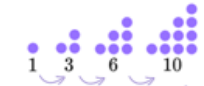
A sequence is a set of numbers, letters or shapes that follow a particular pattern or rule.

2, 5, 8, 11, 14, . . (+3 +3 +3 +3)

This is an **arithmetic** sequence - to get from one term to the next, you add

3, 6, 12, 24, 48 (×2 ×2 ×2 ×2)

This is a **geometric** sequence - to get from one term to the next, you multiply by



This is a special sequence called the **triangular numbers**.

The **nth term** of a sequence is a formula that enables us to find any term in a sequence.

Finding the nth term rule

1. Find the common difference.

5, 9, 13, 17, 21, . . . (+4 +4 +4 +4 +4)

The common difference is 4.

2. Multiply the values for n=1, 2, 3... by the common difference.

4 n	4,	8,	12,	16,	20

3. Add or subtract to obtain the sequence.

+1	4 n	4,	8,	12,	16,	20
	4n + 1	5,	9,	13,	17,	21,

The nth term rule is **4n+1**.

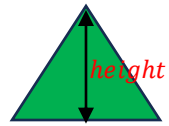
3. Area and Perimeter

Area = Space inside the shape

Area of a rectangle = length × width

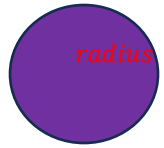
length

width



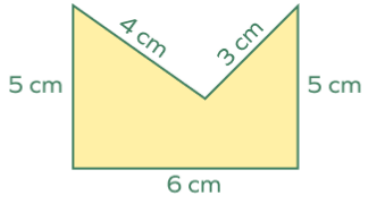
Area of a triangle = (base × height) ÷ 2

Area of a circle = radius × radius × π



π is just a number, it is approximately 3.14

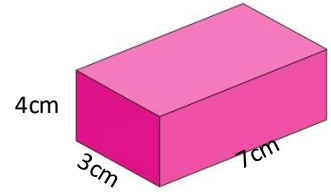
Perimeter = distance around the edge of the shape



Perimeter of this shape:

$5 + 4 + 3 + 5 + 6 = 23cm$

4. Volume and Surface Area



Volume = front area × length

$Volume = (4 \times 3) \times 7$

$Volume = 12 \times 7$

$Volume = 84cm^3$

Surface area = add up area of every face

$Front = (4 \times 3) = 12cm^2$
$Back = (4 \times 3) = 12cm^2$
$Top = (7 \times 3) = 21cm^2$
$Bottom = (7 \times 3) = 21cm^2$
$Side = (7 \times 4) = 28cm^2$
$Front = (7 \times 4) = 28cm^2$

Mathematics

5. Ratio & Proportion

How to simplify ratios ?

Ratios are easier to work with if they are in their simplest form. To simplify the ratio, divide by the **(HCF)** highest common factor of very side.

12:8
÷4 ÷4
3:2

What are Equivalent Ratios?

Are ratios which are the same but have different numbers. To write an equivalent ratio, **multiply** or **divide** each part of the ratio by the **same** number.
12: 8 = 6:4 = 3:2

How to divide by a ratio ?

Share £24 in the ratio 5: 3

1) **Add** all the numbers in the ratio to find total parts. **5 + 3 = 8 total parts.**
2) Find what 1 part is worth by **dividing** the number to be shared by the total parts **32 ÷ 8 = 3 1 part = 3**
3) **Multiply** all sides of the ratio by the value of 1 part.

5 3
x3 x3
15:9

15 + 9 = 24

6. Formulas & Change the subject

Substituting into a formula example
Speed is calculated using the formula

$$S = \frac{D}{T}$$

Where D is distance and T is time.

The speed of a car which took 2 hours to travel a distance of 100 miles is:

Here D=100 and T=2

Substituting into the formula:

$$S = \frac{100}{2} \qquad S = 50mph$$

Making x the subject of the formula.
This means rearranging the formula so that we have a single 'x' variable equal to the rest of it. E.g.

Make x the subject.

$$2x - 5y = p$$
$$+5y \quad +5y$$
$$2x = p + 5y$$
$$\div 2 \quad \div 2$$
$$x = \frac{p + 5y}{2}$$

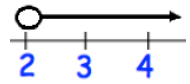
7. Inequalities and Error intervals

When x could be one of many values, we express this using inequalities or error intervals by using algebra or a number line. ***Learn these examples below:***

x is greater than 2

$x > 2$

x is less than 3



$x < 3$

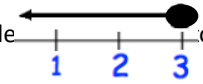
x is greater than or ec

$x \geq 2$

x is less than or equal

$x \leq 3$

x is more than 2 but le



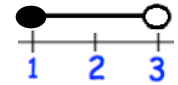
o 4

$2 < x \leq 3$

x is more than or equal t

an 3

$1 \leq x < 3$



8. Rounding

Can you round to a given degree of accuracy?

1. FIND the column that you are rounding to
2. Put an **ARROW** over this column
3. Write down everything BEFORE the arrow number
4. CHECK the digit after the arrow. This tells you what to do with the arrow number
5. If it's 0, 1, 2, 3, 4: **LEAVE IT**
6. If it's 5, 6, 7, 8, 9: **ROUND IT** UP
7. Fill in any gaps with zero placeholders to keep your digits in the correct columns

For example round the following to 1 significant figure:

4 890 351
5 or bigger ?
Yes
5 000 000

0.0007506
5 or bigger ?
Yes
0.0008

Mathematics

9. Estimation

Can you estimate calculations?

1. First ROUND ALL NUMBERS involved in the calculation to 1 SIGNIFICANT FIGURE
2. Then complete the calculation
3. Check to see whether your answer sounds sensible!

Example

Estimate $\frac{4.67+18.32}{0.13}$

Round to 1SF → $\frac{5+20}{0.1}$

Work out → 25 ÷ 0.1

→ 250 ÷ 1 =250

Estimation → 250

10. Bounds

If a pencil is 8cm to the nearest cm, its lowest possible length is 7.5cm (as it rounds up to 8cm) and the greatest is anything less than 8.5cm (like 8.49999cm, as it rounds off to 8cm).

See how the above can be done, step by step:

1) Half rounding accuracy (e.g. ½ of 1cm = 0.5cm)
2) Subtract this off from rounded number
   = Lower bound (8 – 0.5 = 7.5cm)
3) Add this to rounded number
   = Upper bound (8 + 0.5 = 8.5cm)

Example Problems involving decimal places and significant figures

Ex. 1: Find the lower and upper bound of 0.7 (rounded to nearest 1 decimal place)

1) Half of 1 decimal place = ½ of 0.1 = 0.05
2) Lower bound = 0.7 – 0.05 = 0.65
3) Upper bound = 0.7 + 0.05 = 0.75

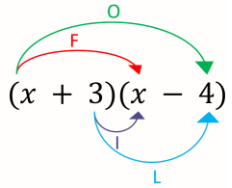
Ex. 2: Find the lower and upper bound of 4500 (rounded to 2 significant figures)

1) We see that 4800 is rounded to nearest 100 --> half of 100 is 50
2) Lower bound = 4800 – 50 = 4750
3) Upper bound = 4800 + 50 = 4850

11. Expanding brackets

What does expanding brackets mean?

It means multiplying each term in the brackets by the expression outside the bracket.
It is the reverse process of factorization and is sometimes referred to as multiplying out.



To Expand double brackets:

Every term in the first bracket must be multiplied by every term in the second bracket.
Use a grid to multiply out the brackets.
Simplify the x terms

EXAMPLE

$(x + 2)(x + 3)$

	x	$+2$
x	x^2	$+2x$
$+3$	$+3x$	$+6$

$= \quad x^2 + 5x + 6$

12. Simultaenous Equations

- When there are two unknowns you need two equations. These are called **simultaneous equations**.
- Simultaneous equations can be solved using elimination
- To **eliminate** an unknown, multiply the equations so that the coefficients of that unknown are the same.
  Add or subtract the equations to eliminate the chosen unknown. Sometimes the equations have to be multiplied by numbers before an unknown can be eliminated.

$4x - y = 3$ (1) — Label the equations (1) and (2).
$x + y = 7$ (2)
$5x + 0 = 10$ — Since $-y$ and $+y$ are of different sign, add equations (1) and (2) to eliminate terms in y.
$5x = 10$ so $x = 2$ — Divide both sides by 5.
When $x = 2$, $2 + y = 7$ — Substitute $x = 2$ into equation (2) and solve to find the value of y.
$y = 7 - 2 = 5$
So the solution is $x = 2, y = 5$.
Check: $4 \times 2 - 5 = 8 - 5 = 3$ ✓ — Check your solution by substituting into equation (1).

Try the following questions.

Solve these simultaneous equations.

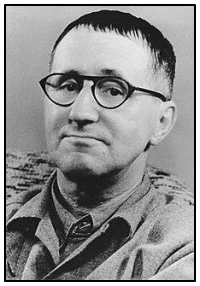
1. $2x + y = 9$
   $x + y = 5$

2. $3x - y = 12$
   $2x + y = 13$

Drama

1. Overview

Bertold Brecht (1898-1956) was a **playwright** and writer from Germany. His **ideas about drama** and theatre have influenced many playwrights, directors and theatre companies.



The turmoil of the times through which Brecht lived gave him a strong **political** voice.

Brecht was heavily influenced by **Marxist** ideas and he saw theatre as a way to **spread political messages** about class struggle.

He wanted to make his audience **think** and famously said that theatre audiences at that time "**hang up their brains with their hats in the cloakroom**". He formed the **Berliner Ensemble** theatre company in 1949.

BERLINER ENSEMBLE

2. Marxism

Brecht's political theatre promoted the ideas of **Karl Marx (1818-1883)** who had died fifteen years before Brecht was even born.

Marxist politics were "left-wing" and closely linked to **socialism** and **communism**. Brecht lived during the rule of **Adolf Hilter and the Nazi party** in Germany who held opposite "right-wing" views. Marx believed **the state** (the government) should make sure that everything in a country is shared equally.

In many of Brecht's plays, characters are in **wars** or facing extreme **poverty** or **desperation**. However, he wanted audiences to focus on the **political situation** in play, not the emotion journey of the characters. The style he created to achieve this is known as **Epic Theatre**.

3. Epic Theatre techniques 1

Der Verfremdungseffekt – this translates from German to **the alienation effect**. The action of the play is interrupted by **narration or songs** in such a way that any illusion of realism is destroyed. Actors would even come out of character on purpose. Brecht did not want the audience to believe that the action on stage was 'real'.

Breaking the fourth wall - This is where the 'wall' between the audience and actors on stage is broken. The actors will sometimes directly address the audience with a speech, comment or a question.

Placards - A placard is a hand-held sign that can be used to give the audience some extra factual information. Tor example it might say how many people have died in a particular war. Placards are also used to introduce a new scene, or to tell the audience when one has finished.

Multi-roling – This is when an actor plays more than one character onstage. The differences in character are marked by changing voice, movement, gesture and body language but the audience can clearly see that the same actor has taken on more than one role. This means the audience are more aware of the fact that they are just watching a play.

Drama

4. Epic Theatre Techniques 2

Archetypes – in this style, characters **did not need to be fully believable** as people. Sometimes they were just called titles like 'Chef' or 'Old Woman' and didn't have names. This was so that the audience did not get **emotionally** invested in them.

Minimal set/costume/ props – to reduce how believable the play was, **the stage would be bare** and a few **objects** and pieces of **costume** could suggest location and character.

Song and Dance – to reduce how believable the play was, Brecht often places **songs and dances** into scenes at unexpected moments.

Gestus – this is a German word that means **gesture** but it had a specific meaning for Brecht. Actors would **repeat the same movements/gestures many times** to exaggerate their characters. Again, this is intentionally not believable.

5. Making Political Theatre

Brecht's plays were about wars, poverty and the politics of his day. He often wrote about the Nazis, Adolf Hitler and the effect of World War II on Europe.

If you created a piece of political theatre, what events would it be about?

The wars in Ukraine and Gaza
You could explore the effect of these wars on the civilian populations or the role of the UK in these conflicts.

The cost of living crisis
You could explore the effect of rising prices and high inflation on our society. You could focus on the cost of food, rent and energy bills. You could tell the story of a family business closing.

Climate change
You could explore the effect of extreme weather events or our changing seasons. You could create drama about key voices in the climate change battle including Greta Thunberg and the United Nations Climate Change conference (COP28)

The General Election
You could explore the options available to voters in the forthcoming general election, the parties and their policies.

6. Influence

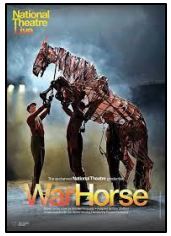
Brecht's influence is visible in most modern theatre. We are used to performances with minimal props, use of projections, actors breaking fourth wall etc.

Brecht influenced many British political playwrights e.g. **Caryl Churchill** and **David Hare**. He also influenced **Augusto Boal** who created Forum Theatre in Brazil.

7. Influence

The 1963 comedy musical Oh! What a Lovely War by Joan Littlewood used lots of Brecht's techniques to parody World War I. Littlewood dressed the soldiers as clowns to show the audience how absurd the war was.

In 2007, another show about World War I opened in London - War Horse. This was an adaptation of the book by Michael Morpurgo and used puppets to create the horses and tanks. The show used minimal set and stark lighting to suggest the battles.



Drama

8. Overview

Metamorphosis - A **surrealist** novel written by Franz Kafka in 1915. Adapted for the stage by Steven Berkoff in 1969.

Physical Theatre – A type of performance that includes a lot of physical movement.

The play takes place in the **Samsa** household. **Gregor** is a salesman who is the only worker in the household. The play sees the family struggle after wakes up as a beetle…

The **opening line** is:
As Gregor Samsa awoke one morning from uneasy dreams, he found himself transformed in his bed into a gigantic insect.

9. Gregor

Gregor Samsa, a young man with his whole future ahead of him, is a travelling salesman. He is stuck working for a cruel and demanding clerk to pay off his father's debt as well as support his parents and younger sister, Greta.

Gregor feels useless and guilty as he is unable to work, and is looked after by his struggling family. Gregor can hear and understand everything his family say, while his family cannot understand him.

Actors can use **ensemble** and **physical theatre** to present Gregor as a beetle.

Gregor can be seen to represent the idea of **living to work**, and how the lack of emotional and social support can damage a human being.

10. Greta

Greta is the loving **sister** of Gregor. She is seen constantly playing the violin, and dreams to go to a music school. Greta is devoted to Gregor – she feeds him and cleans his room.

Berkovian Gesture – An extreme robotic movement that is repeated to demonstrate the repetitive lives the Samsa's live.

Greta demonstrates the challenging relationship of siblings. With Gregor supporting Gretta while he works to ensure that she can learn and live comfortably, she tries to do the same for Gregor when he becomes the beetle.

11. Mr & Mrs Samsa

Once Gregor becomes a beetle, both of his **parents** react in different ways.

His **mother** believes that he will always be her son and tries to remember how Gregor used to be.

His **father** is disgusted by Gregor as a beetle and attacks him when he first sees him. He is repulsed by the sounds Gregor makes and is worried about how they will be able to live with no income.

When the famous British actor **Steven Berkoff** adapted the play in 1969, Berkoff played the role of Mr Samsa.

12. Theme: Euthanasia

Euthanasia is "a deliberate intervention undertaken with the express intention of ending a life, to relieve intractable suffering". This is a theme of the play because the family members debate whether or not to kill Gregor

Pro-euthanasia arguments:
Patients have the right to choose – It may be in the best interest of the patient – Fewer medical resources will be needed to keep the patient alive

Anti-euthanasia arguments:
Life is sacred – Improvements in care make euthanasia needed less – Doctors might abuse their power – Relatives could put pressure on the patient to do it.

Computing

Please complete the following tasks each week using your ePortfolio booklet.

Task 1 – Complete your keyword definitions for all words listed in the keywords section of the ePortfolio Complete 1 each week. (Use the class presentations to support you)
Task 2 – Look at the keywords listed here ready for a spelling test next lesson.
Task 3 – Ensure any worksheets you started in class this week are complete (use the class presentation to support you).
Task 4 – Complete any purple pen improvements you have been advised to do using the purple font. (Use the Google classroom to support you).

1. Artificial Intelligence

Keywords
Artificial intelligence
Language Processing
Neural networks
Classification
Embedded computer

2. Machine learning

Keywords
Facts
Rules
Machine learning
Structured data
Unstructured data

3. Ethics of AI

Keywords
Ethics
Utilitarianism
Autonomy
Consent
Bias

4. Image recognition

Keywords
Classification
Training data
Detection confidence
False positive
Feature extraction

5. Turing test

Keywords
Intelligence
Captcha
Turing test
Chatbot
Virtual assistant

6. Rate my review

Keywords
Algorithm
Sentiment analysis
Ratings
Computer training
Review

7. End of Topic test

Task 1 – Ensure any worksheets you started in class are complete.
Task 2 – Complete any purple pen improvements you have been advised to do using the purple font.
Task 3 – Revise the material from this term ready for an end of topic test.

8. Citizen

Keywords
Digital awareness
Social media
Digital ethics

9.Worker

Keywords
Collaboration
Cloud computing
Cyber security

10. Maker

Keywords
Coding
Animation
Web design

11. Entrepreneur

Keywords

Money management, Growth hacking, Digital research

12. Gamer

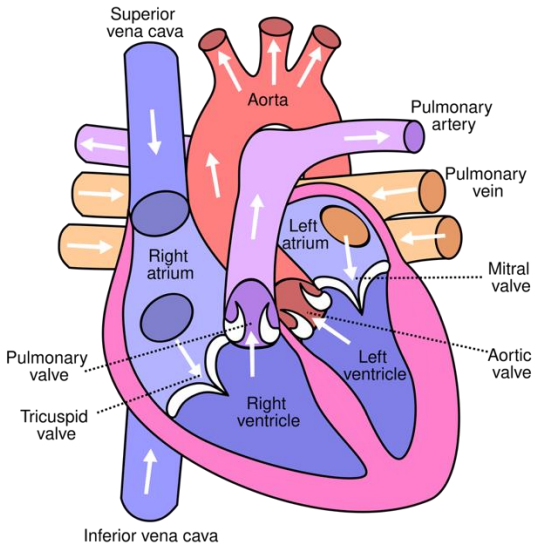
Keywords

Game design, E-Sports, Problem solving

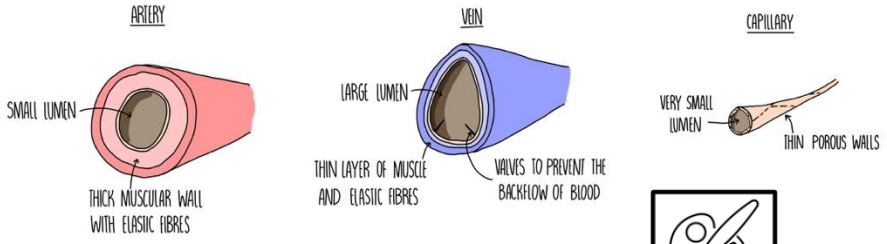
Science - Biology

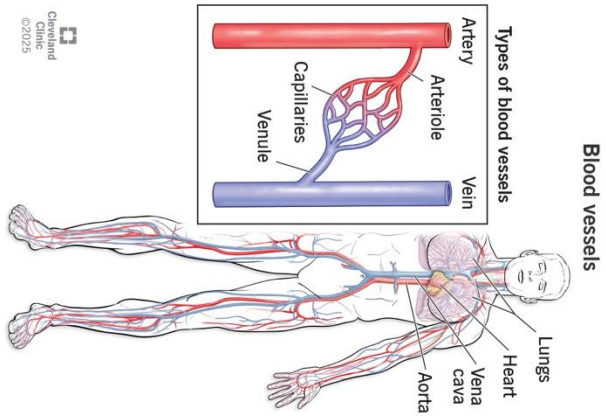
1. The Heart

Double Circulatory System: Blood goes through the heart twice on its route around the body
Pacemaker cells: Cells that set off impulses to make the heart contract
Pulmonary artery: Carries blood from the heart to the lungs
Pulmonary vein: Carries blood from the lungs to the heart
Aorta: Carries blood from the heart to the body
Vena Cava: Carries blood from the body to the heart

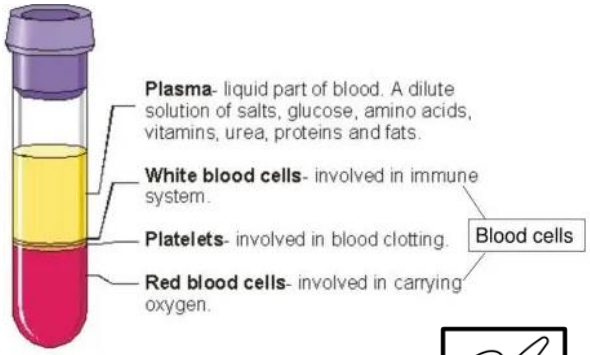


2. Blood Vessels

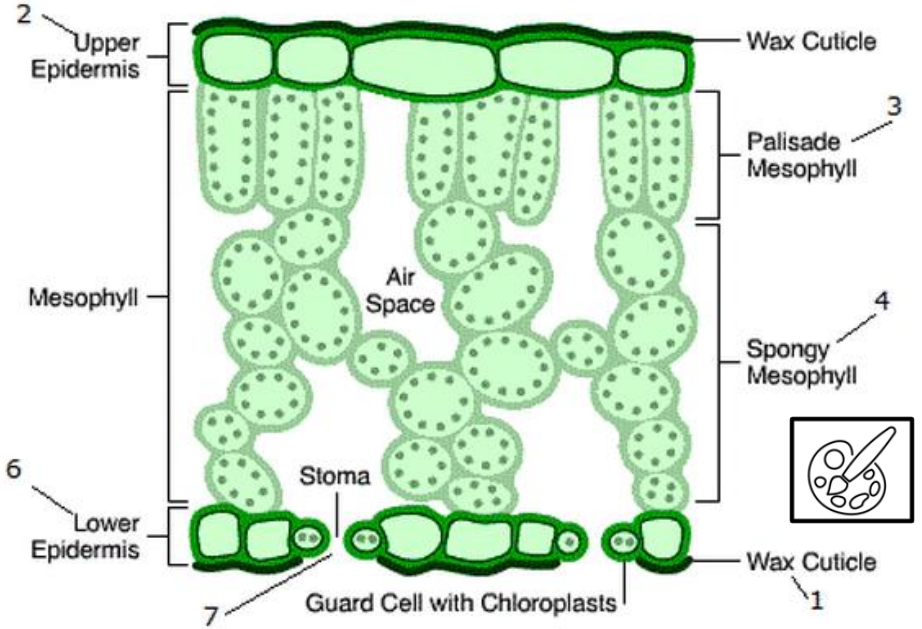




3. Components of Blood



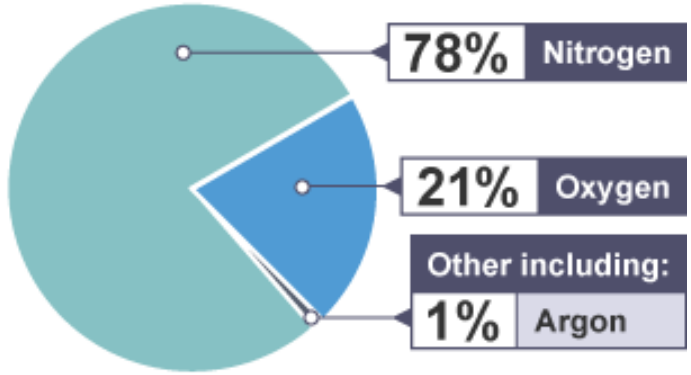
4. Plant Tissues



Science - Chemistry

5&6. The Evolution of the Atmosphere

Scientists are not sure what gases were in Earth's early atmosphere because it was so long ago and there is little evidence. Most scientists think the atmosphere was mostly carbon dioxide and water vapour, with small amounts of methane, ammonia, and nitrogen. These gases all came from volcanoes. There was almost no oxygen. The Earth was very hot at first, but as it cooled, water vapour turned into liquid and formed oceans. Carbon dioxide dissolved in the oceans and also formed solid carbonates, which reduced carbon dioxide in the air. About 2.7 billion years ago, plants and algae appeared. They used carbon dioxide and made oxygen, so oxygen levels increased. Later, sea animals used carbon dioxide to make shells and bones. When they died, these became limestone rock. Once there was enough oxygen, animals could survive and breathe. These changes led to the mix of gases we have in the atmosphere today.



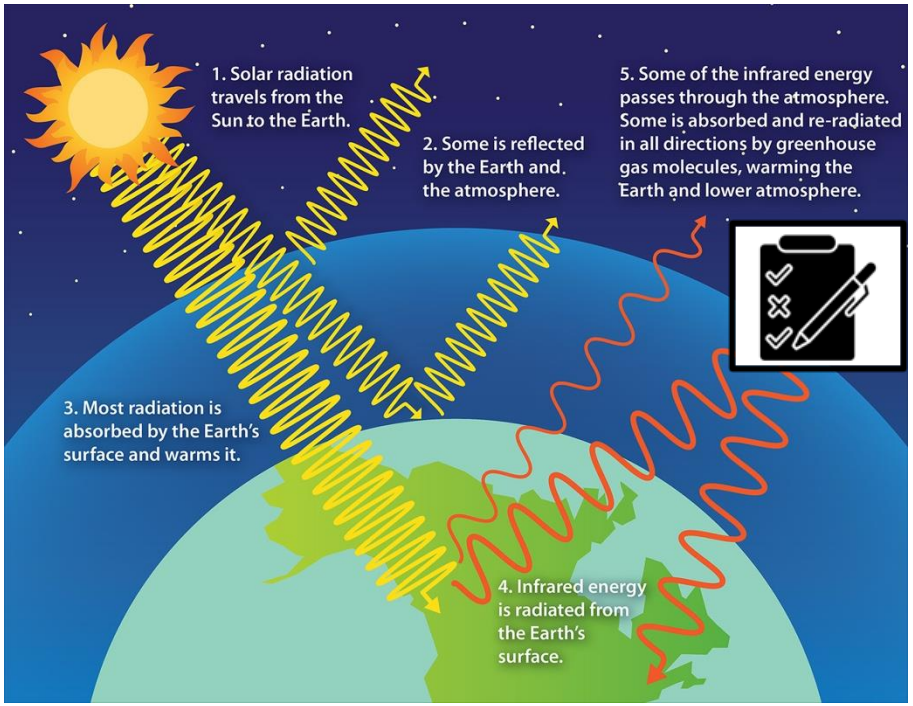
Challenge!
Make a model or timeline which shows how our atmosphere developed.

7&8. The Greenhouse Effect

The greenhouse effect is how Earth stays warm enough for life. Here's how it works:

1. Sunlight reaches Earth – The Sun sends energy to Earth as light and heat.
2. Earth absorbs heat – The ground and oceans soak up this energy and warm up.
3. Heat tries to escape – Some heat goes back into space.
4. Greenhouse gases trap heat – Gases like carbon dioxide, methane, and water vapour act like a blanket. They stop some heat from escaping.
5. Result – Earth stays warm enough for plants, animals, and people to live.

Without the greenhouse effect, Earth would be very cold. But too many greenhouse gases make Earth too warm, causing global warming.



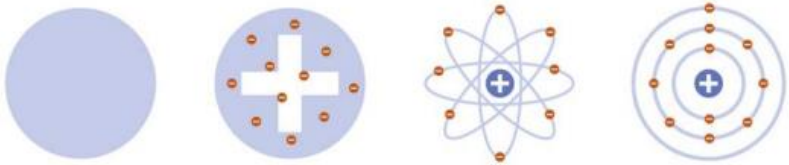
Science - Physics

9. Keywords

Atom	The smallest possible piece of an element. Has a radius of 0.1 nm (or 1×10^{-10} m).
Element	A substance in which all the atoms have the same atomic number.
Isotope	Atoms with the same number of protons but different numbers of neutrons.
Molecule	Two or more atoms bonded together.
Compound	Two or more different atoms bonded together.
Mixture	At least two different elements or compounds together. Can be separated easily.
Nucleus	The centre of an atom. Contains protons and neutrons.
Proton	A positively charged particle found in the nucleus.
Neutron	A neutral particle found in the nucleus. Has no charge.
Electron	A negatively charged particle found in energy levels (shells) around the nucleus.

10&11. History of the Atom

Discovery	By	Model	Diagram
Solid particle called atom	John Dalton	Particle: solid spheres	1
The electron	JJ Thompson	Plum pudding: positive 'cake' with negative 'plums'	2
Nucleus	Rutherford	Nuclear: Positive nucleus surrounded by electrons	3
Neutron	James Chadwick	Nuclear: Now with protons and neutrons in nucleus	3
Energy levels (shells)	Niels Bohr	Planetary: Electrons now 'orbit' in different shells	4



1 2 3 4

12. Radiation

Name	Symbol	Made of	Charge	Range in air	Penetration	Ionising power
Alpha	α	Helium nucleus	+2	5 cm	Blocked by paper and skin	High
Beta	β	Fast moving electron	-1	15 cm	Blocked by thick aluminium	Medium
Gamma	γ	Electromagnetic wave	N/A	Very long	Blocked by thick lead	Low

PE

1. Cardiovascular system

Cardiac Output: is the amount of blood pumped out of the heart per minute.

Stroke Volume: is the amount of blood pumped out of the heart per beat.

Heart Rate = Number of beats per minute (Average adult, 72 bpm)

Maximum Heart Rate = 220 – Age

Cardiac Output = Stroke Volume × Heart Rate

Effects of exercise

Immediate - Heart Rate increases to deliver Oxygen to the working muscles.

Long term- Bradycardia – Decrease in your resting heart rate. Cardiac Hypertrophy – Your heart will increase in size and strength.

2. Cardiovascular system

Redistribution of blood during exercise: When exercise begins, the body alters its priorities. At rest, high % of blood is directed to organs and during exercise the blood is redirected to voluntary muscles.

Vasoconstriction: Narrowing of internal diameter of a blood vessel to restrict the flow of blood. The arteries constrict during exercise so that less blood is delivered to inactive areas.

Vasodilation: Widening of internal diameter of a blood vessel to increase the volume of blood travelling through it. The arteries dilate during exercise so that more blood is delivered to active areas, Increasing their O^2 supply.

Blood pressure Systolic pressure- When the Heart is CONTRACTING: Ventricles contract to pump blood to arteries. Diastolic Pressure - When the Heart is RELAXED: Atria & ventricles are relaxed and the valves (atrio-venticular) between are open which allow blood to flow to ventricles

3. Respiratory system

Gaseous exchange takes places atthe alveoli. The alveoli are tiny air sacks inside the lungs. When you breathe in, they fill with air.

6 features assist the process of gaseous exchange

1. Alveoli's moist thin walls (1 cell thick) allows gases to pass through
and travel into the blood stream.
2. A large blood supply. An increased red blood cell count increases the amount of oxygen supplied to muscles and other body
tissues.
3. Short distance for diffusion (short
diffusion pathway) – capillaries are
very near alveoli
4. Large surface area of alveoli allows diffusion to take place.
5. Lots of capillaries – to increase the amount of diffusion possible
6. Movement of gas from high concentration to low concentration

4. Respiratory system

The Mechanics of Breathing

Breathing In- Intercostal muscles (between the ribs) contract, pulling the chest walls up and out.
The diaphragm muscle
contracts, moving downwards and flattening, increasing the size of the Chest.

The lungs increase in size, so the pressure inside them falls. This causes air to rush in through the nose or mouth.

Breathing out- Intercostal muscles between the ribs relax - the chest walls move in and down.

The diaphragm relaxes and bulges up, reducing the size of the chest. The lungs decrease in size, so the pressure inside increases and air is pushed up and out.

PE

5. Aerobic & anaerobic exercise

Aerobic: Exercise With Oxygen
(O2)Aerobic exercise can be maintained for long periods and
includes activities like walking,
jogging, cycling and swimming.

Anaerobic: Exercise Without Oxygen (O2).
When you exercise at a high intensity, the respiratory system cannot supply enough oxygen to the muscles.

With no oxygen available, glucose is still used **BUT** produces energy & tactic acid (this causes fatigue).

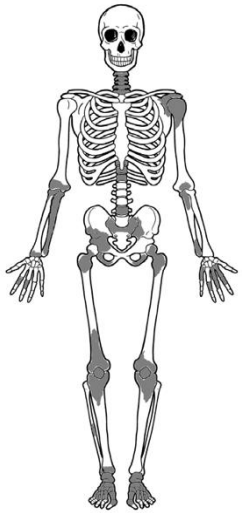
Excess Post-exercise Oxygen Consumption (EPOC):
Oxygen debt is the amount of oxygen the performer was short of during the exercise. Rapid and heavy breathing after exercise will return the body to a resting state)

6. Musculoskeletal system

Functions of the Skeleton: Shape and points for attachment; Support; Movement; Mineral storage; Protection; production of blood cells.

Joints: Where two or more bones are attached to allow movement. Most common type of joints in the body are synovial joints.

Ball & socket joint: large range of movement; forwards and backwards,
side to side and rotation. Examples: Shoulder and hip.
Hinge joint: formed between where bones can only move along one axis to flex or extend. Examples: knee and elbow.



7. Musculoskeletal system

There are 2 types of muscle contraction:
Isotonic: The muscle changes length and causes movement. E.g. flexing your arm or leg.
Isometric: The muscle remains the same length and there is no movement. E.g. holding your body on the rings in gymnastics.

During isotonic contractions, 2 other contractions take place**:**

Concentric contractions are where the muscle shortens as it contracts. E.g. The bicep during the upward phase of a bicep curl.

Eccentric contractions are the opposite and occur when the muscle lengthens. E.g. The bicep during the downward phase of a bicep curl.

8. Energy

Energy is measured in calories (Kcal) and is obtained from the food we eat. Average adult male requires 2,500 Kcal/day and the average adult female requires 2,000 Kcal/ day but this is dependent upon:
- Age
- Gender
- Height
- Energy expenditure (exercise)

A balanced diet contains lots of different types of food to provide the suitable nutrients, vitamins and minerals we require.

The reasons for a balanced diet:
- The suitable energy can be available for activity
- The body needs nutrients for energy, growth and hydration

PE

9. Aerobic Respiration

The process of cellular respiration that takes place in the presence of oxygen gas to produce energy from food

When you exercise at a steady, comfortable rate, the cardiovascular system can supply the muscles with all the oxygen they need.

Under these conditions, aerobic respiration takes place.

Aerobic respiration equation:

Glucose + Oxygen = Energy + Carbon Dioxide + Water

10. Anaerobic Respiration

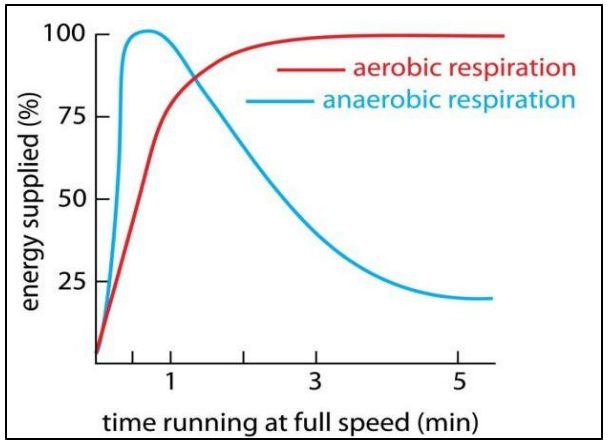
It is a process which takes place in the absence of oxygen gas.

When you exercise at a high intensity, the cardiovascular system cannot supply enough oxygen to the muscles.

Under these conditions, anaerobic respiration takes place.

Anaerobic respiration equation:

Glucose = Energy + Lactic Acid



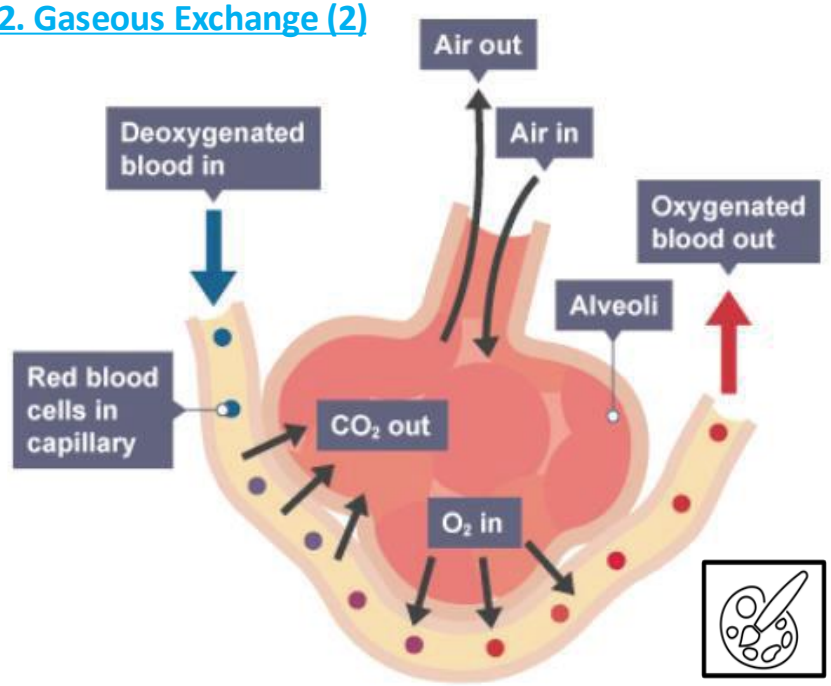
11. Gaseous Exchange (1)

This is the process we get air into the blood and we remove waste carbon dioxide from the blood to the air.

This movement of gases is called gas exchange. In the lungs the alveoli are adapted to make gas exchange occur easily and efficiently.

- Oxygen diffuses form the air in the alveoli into the blood.
- Carbon dioxide diffuses from the blood into the air in the alveoli.
- This movement of gas is called diffusion in which they more from an area of high concentration to an area of low concentration.

12. Gaseous Exchange (2)



RPE

1. What is the problem of evil?

Evil in the form of suffering, whether intentional or not, is seen in the world all around us. Many consider the existence of evil to be at odds with the existence of God. The Problem of Evil is an argument is caused by atheists in an attempt to prove that the Christian God doesn't exist.

David Hume, a notable atheist philosopher, described it as 'the rock of atheism'. It presents the following argument: If God is omnipotent (all-powerful) then he would be able to remove evil from the world, if God is benevolent (all-loving) then he would want to remove evil from the world.

2. Vocabulary

Alan Turing	20th century English computer scientist and philosopher who designed the Turing Test to show whether a computer can think.
Turing Test	A test created by Alan Turing to try and show if a computer can think.
Artificial Intelligence	Computer systems that are able to carry out tasks normally done by humans.
Artificial superintelligence	The name given to a possible future invention that is more intelligent than humans and can outperform us in everything.
Speciesism	A term popularised by Peter Singer to describe prejudice or discrimination towards animals.

3. The design argument

Read the extract.

Some Christians believe that it is possible to prove the existence of God by looking at the world we live in. The world shows signs of ORDER and PURPOSE and therefore it much have been DESIGNED (made) this way by God. William Paley supported this argument using an ANALOGY about a pocket watch. He argued that if you went for a walk and stumbled across a pocket watch in a field you would know that;

a) The watch could not have appeared by itself
b) It has been made for the purpose of telling the time
c) A skilful watchmaker must have designed it
This pocket clock is similar to the world:
d) The world shows evidence of order and purpose e.g. gravity,
d) Therefore, the world must be designed
e) God must have designed the world.

Challenge!
Justify why the problem of evil challenges God's existence.

RPE

4. Situation ethics

Situation ethics is a theory where the situation is taken into account, before deciding on the rules of right and wrong.

Joseph Fletcher developed the theory of situation ethics in the 1960's.

His book: Situation Ethics: the new morality, was published in 1966. Fletcher was a Christian, and his faith influenced his ethical theory.

* Situation ethics has Christian foundations. Situation ethics states that there are NO moral laws or rules and that the context is important. The general rule of this approach is that the correct action should be the most loving thing action.

* There is no set of rules, because what might be considered immoral in one situation could be considered the most moral thing to do in another.

Challenge!

Using your knowledge of utilitarianism, explain the Mill's version of it.

Extension: Justify the strengths and weaknesses of Utilitarianism.

5. Utilitarianism

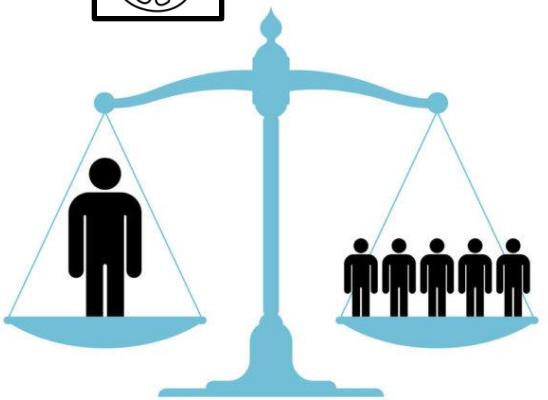
Utilitarianism is an ethical theory that determines right from wrong by focusing on outcomes. Jeremy Bentham (1748-1832), a legal reformer and philosopher developed the utilitarian approach to ethics. Bentham said that all decisions should be made with the aim of achieving the greatest happiness for th

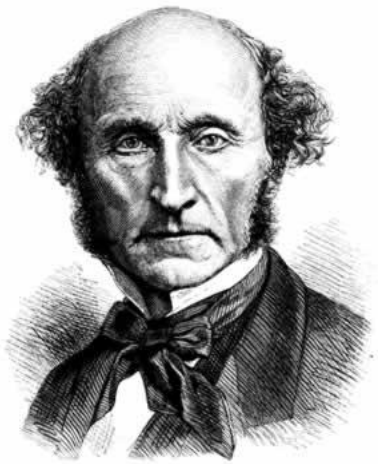
greatest number of people. Bentham's utilitarianism is often referred to as act utilitarianism.

6. Mill's version of Utilitarianism

J.S. Mill develops Bentham's utilitarianism. Mill argues that happiness is not equal, he argues that some pleasures are better than others. Mill also argued that to stop and use the hedonic calculus for each action is not practical.

Mill developed rule utilitarianism. Rule utilitarians believe that we can maximise utility only by setting up a moral code that contains rules. The correct moral rules are those whose inclusion in our moral code will produce better results (more happiness/ pleasure) than other possible rules.

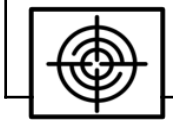




RPE

7. Vocabulary

Morality	Ideas or principles about what is right and wrong
Ethics	The philosophical study of right and wrong
Altruism	Selfless actions done without thought or expectation of reward
Absolutism	The view that certain actions are inherently good or bad
Relativism	The view that whether an action is good or bad depends on the situation
The will to power	A term used by Nietzsche to describe a natural human desire for strength and power
Hedonic calculus	Jeremy Bentham's way of calculating which actions are right and wrong
Thought experiment	A mental test in which people think through consequences of different actions, often in scenarios that can't be tested out in real life
Holocaust	The killing of six million Jews by the Nazis between 1933 and 1945
The banality of evil	A phrase used by Hannah Arendt to describe how evil can result from ordinary, thoughtless behaviour
Dualism	The belief that humans have both a body and another separate, immaterial part, such as a mind or soul



8. Greek Philosophers

Socrates: Ancient Greek Philosopher bon around 470BC. He believed in the importance of reason. He used this to develop ideas and seek for the truth at all times. He taught that questioning everything was important to get to the truth. Today his method of reasoning is known as the Socratic method.

Plato: Ancient Greek Philosopher 427-346BC. He was a student of Socrates. He believed that there was a distinction between ideal forms and everyday experience. He used the analogy of the cave to show that senses could not be trusted and that we needed to think for ourselves to find the truth.

Aristotle: Ancient Greek Philosopher and student of Plato. His writings can be divided into 5 categories: Logic, science, metaphysics, ethics and rhetoric. He taught deductive and inductive arguments to prove your points, using reason and logic.

9. What is Artificial intelligence?

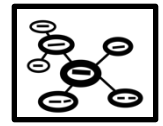
Artificial intelligence - or AI for short - is technology that enables a computer to think or act in a more 'human' way. It does this by taking in information from its surroundings, and deciding its response based on what it learns or senses.

It affects the the way we live, work and have fun in our spare time - and sometimes without us even realising. AI is becoming a bigger part of our lives, as the technology behind it becomes more and more advanced.

Machines are improving their ability to 'learn' from mistakes and change how they approach a task the next time they try it.

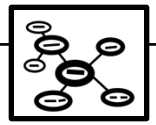
Some researchers are even trying to teach robots about feelings and emotions.

You might not realise some of the devices and daily activities which rely on AI technology - phones, video games and going shopping, for example.



RPE

10. People	
John Locke	17th century English philosopher who argued that when we are born, our mind is like a blank slate (tabula rasa)
Friedrich Nietzsche	19th century German atheist who expressed his belief that humans no longer needed the idea of God by saying 'God is dead and we have killed him'
Jeremy Bentham	18th century English philosopher, regarded as the founder of utilitarianism, who argued that pleasure an pain are the same as good and bad
John Stuart Mill	19th century philosopher who developed utilitarianism by arguing that the quality of pleasure or pain produced by an action is more important than the quantity
Robert Nozick	20th century American philosopher who used the example of an imaginary 'experience machine' to show that humans value more than simply pleasure
Philippa Foot	20th century English philosopher who designed the runaway train thought experiment in 1967
Hannah Arendt	20th century German philosopher who attended the trail of Adolf Eichmann in 1961 and wrote about the banality of evil
Gilbert Ryle	20th century English philosopher and materialist who mocked dualism by claiming it is like believing there is a 'ghost in the machine'



11. Key Quotes

'God made man in his own image' Bible

The Sanctity of Life 'You knit me together in my mothers womb' Bible

The Sanctity of Life 'The technology itself has got enormous potential to correct other (medical) conditions' Prof Waseem Qasim

Genetic Engineering 'I think therefore I am'
Rene Descartes AI Technology.

'Not until a machine can write a sonnet or compose a concerto because of thoughts and emotions felt, and not by the chance fall of symbols, could we agree that machine equals brain' Professor Jefferson Lister AI Technology

12. What is the banality of evil?

Hannah Arendt (1906-75) was a German Jew who moved to the United States during WWII, becoming a naturalised citizen in 1950. She reported on Eichmann's trial for the *New Yorker* magazine, and her investigations yielded so much that they eventually led to an entire book, *Eichmann in Jerusalem: A Report on the Banality of Evil.* Arendt wanted to find out more about the mind of this man, who had committed such terrible acts on such a wide scale, and to understand the motivations behind his choices.

Challenge!
Google the runaway train thought experiment and summarise it in your own words.

D&T: Papers and Boards (Graphics)

1. Keywords spelling/definition test.

Festival	a festival is a gathering of people who are attending a music and arts or other themed festival that usually involves camping.
counterfeit	When something is reproduced and sold without permission
Product analysis	Looking at existing products to establish their strengths and weaknesses.
Net	A flattened piece of packaging that shows the cut lines, fold line and tabs.
Pop up mailer	a self-assembly product that pops up when opened such as a pop-up moneybox.
Site map	a clear map showing all the necessary sites that you would need at your festival.

2. The History of Festivals

The music festival emerged in England in the 18th century as an extension of urban concert life into a form of seasonal cultural festivity structured around a schedule of music performances or concerts

Music festivals have developed as an emerging industry which contributes to many national economies. For example, Coachella Valley Music and Arts Festival earned $114.6 million in 2017.[7] Music festivals nowadays also can serve as a way of building a brand for a destination, creating a unique image for it and attracting visitors. The Uks most well-known festival is Glastonbury Festival.

Most festivals provide the following promotional products to guests

- A ticket – most now have a way of making them counterfeit proof
- A map – especially if camping is involved or multiple stages
- A poster displaying the acts that will perform.
- badges, stickers, wrist bands etc.

3. Facts about Glastonbury and the Logo

Glastonbury Festival has been around since 1970, over the years they have redeveloped their logos multiple times to match the genre, feel and style of the festival.
Logos are an essential part of any brand, the colours are normally minimal but Glastonbury has defied this and created many colourful logos over the years. Most of the logos incorporate the font as well and normally feature a symbol from the Glastonbury area or the festival.

4. Fold lines and cut lines

Fold Line:

Definition: A fold line is a pre-marked line on a sheet of paper, cardstock, or other materials that indicates where the material should be bent or folded to create a specific shape or structure.
Appearance: A fold line is usually a straight or dashed line printed or scored onto the material. It serves as a visual guide to ensure accurate folding at the desired location.

- - - - - - - - - Fold lines are seen as dashed lines

Cut Line:

Definition: A cut line is a marked or printed line on a material that indicates where it should be cut or trimmed to shape or size as part of a project or design.
Appearance: A cut line is typically a solid line or a series of dashes and dots that outline the desired shape or cutout on the material. It serves as a guide for precise cutting.

_____ Cut lines are seen as solid lines

5. Facts about Fonts

The word font refers to a set of printable or displayable typography or text characters in a specific style and size. Font styles are used in both print and digital text. It is the style of writing that you use either by hand or using a computer. Display fonts are decorative and tend to be the focal point of a designed piece of work. The font that is used to write the paragraphs are called **body** fonts.

Font Types

An easy way to remember the difference between **display** and **body** fonts are to remember that when something is on **display**, it shows off and the **body** font is the bulky part.

The most recognisable fonts used today on computers are:

Arial	Tahoma	Gothic	Nyala
Times New Roman	Helvetica	Courier	broadway
	ONYX	Script	CASTELLAR
Stylus	Ravie		

6. Types or merchandise

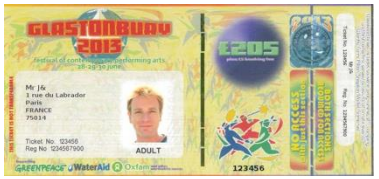
- **Key-Rings:**
  Description: Key-rings are small, decorative items for holding keys. They have festival designs.
  Materials: They can be made from metal, plastic, or fabric.
- **T-Shirts:**
  Description: Festival T-shirts are comfy shirts with festival designs.
  Materials: They're usually made of cotton or a cotton blend.
- **Hats:**
  Description: Festival hats come in different styles with festival logos.
  Materials: They're made from materials like cotton, wool, or polyester.
- **Mugs:**
  Description: Festival mugs are collectible cups with festival artwork.
  Materials: They're made of ceramic, porcelain, or stainless steel.
- **Maps:**
  Description: Festival maps show where everything is at the festival.
  Materials: They're often on paper or digital in apps.
- **Badges:**
  Description: Badges are small wearable items with festival logos.
  Materials: They're made of metal, plastic, or fabric.
- **Stickers:**
  Description: Stickers are adhesive labels with festival designs.
  Materials: They're made from paper, vinyl, or plastic.

7. Counterfeiting Tickets

Festival tickets like all event tickets can easily be copied by criminals and sold as fake ticket to unsuspecting people.

To stop this happening, there are several things that can be done. Festivals like Glastonbury require you to send in a photo which is then added to your ticket, even bank notes have a metal strip and a hologram.

Barcodes and QR codes are a simple way to protect the reproduction of tickets.



8. Types or merchandise

A music festival map is a picture of the festival site showing important places. It uses symbols and labels to help you find things like stages, food, restrooms, first aid, and more. These maps are like guides to the festival, so you know where everything is.

Typical places that should be identified on a map are –
Stages, food and drink, restrooms, first aid, camping area, exit and entrance, lost and found, ATMS etc.

A key on a map is like a special code or symbol that tells you what different things are and where they are located. It's used so that you can understand the map without needing to write out long descriptions for each place. Instead, you can just look at the key and know what each symbol or label means.

D&T : Papers and Boards (CAD/CAM)

1. Keywords spelling/definition test.

2D design	Techsoft 2D Design: This is a versatile CAD software widely used in UK schools for creating detailed 2D technical drawings and graphical designs, known for its ease of use and integration with various CAM machines.
TinkerCAD	Tinkercad: A free, web-based application by Autodesk that allows users to create 3D designs, electronics, and coding projects, making it ideal for beginners and educational purposes
Sketchup	Computer Numerical Control (CNC) SketchUp: A popular 3D modeling software used in architecture, interior design, and engineering, offering both free and professional versions to cater to hobbyists and professionals like

2.Aerodynamics

Aerodynamics is the way objects move through air. The rules of aerodynamics explain how an airplane is able to fly. Anything that moves through air is affected by aerodynamics, from a rocket blasting off, to a kite flying. Since they are surrounded by air, even cars are affected by aerodynamics.

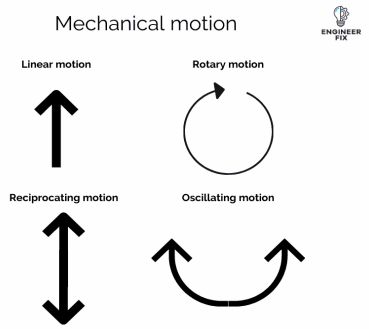
The four forces of flight are lift, weight, thrust and drag. These forces make an object move up and down, and faster or slower. The amount of each force compared to its opposing force determines how an object moves through the air.

3.Motions

Mechanical devices all have an input motion, which transforms into force to make an output motion. The four types of motion are:

- Linear, rotary, reciprocating, oscillating

Linear motion moves something in a straight line, eg a train moving down a track:
Rotary motion is where something moves around an axis or pivot point, e.g. awheel:
Reciprocating motion has a repeated up and down motion or back-and-forth motion, eg a piston or pump:
Oscillating motion has a curved backwards and forwards movement that swings on an axis or pivot point, eg a swing or a clock pendulum:



D&T : Papers and Boards (CAD/CAM)

4. The laser Cutter

Laser Cutter

A laser cutter is a high-precision CAM machine that cuts a wide variety of materials using an extremely powerful laser beam directed onto the material using angled mirrors. The power setting can be varied - if the power is reduced or the speed is too high, then the laser beam will not cut completely through the material and will engrave it instead.

5. The 3D Printer

3D Printer

3D printing, also known as additive manufacturing, is a method of creating a three-dimensional object which is made by adding layer-up on-layer of a specific material such as plastic. (PLA) using a computer created design. (CAD)

6. The CNC router

CNC Router

A CNC router is a type of computer-controlled machine created for milling, drilling and cutting materials.
The main functions of a CNC router are to cut, engrave and carve objects out of a work piece, such as Wood, plastic or metal.

7. The CNC Plasma Cutter

Plasma Cutter

A CNC Plasma Cutting Machine uses electrical current to turn air into plasma, which is the fourth state of matter coming in after solid, liquid and gas.
This cutting format uses a plasma stream to transfer energy to conductive work material. This stream is usually formed by forcing gas such as nitrogen, oxygen, argon or air, through a nozzle on the cutting head.

8. CNC CODE

What is G-code?
G-code is a programming language for CNC (Computer Numerical Control) machines. G-code stands for “Geometric Code”.
We use this language to tell a machine what to do or how to do something. The G-code commands instruct the machine where to move, how fast to move and what path to follow.
In case of a machine tool such as lathe or mill, the cutting tool is driven by these commands to follow a specific toolpath, cutting away material in order to get the desired shape.

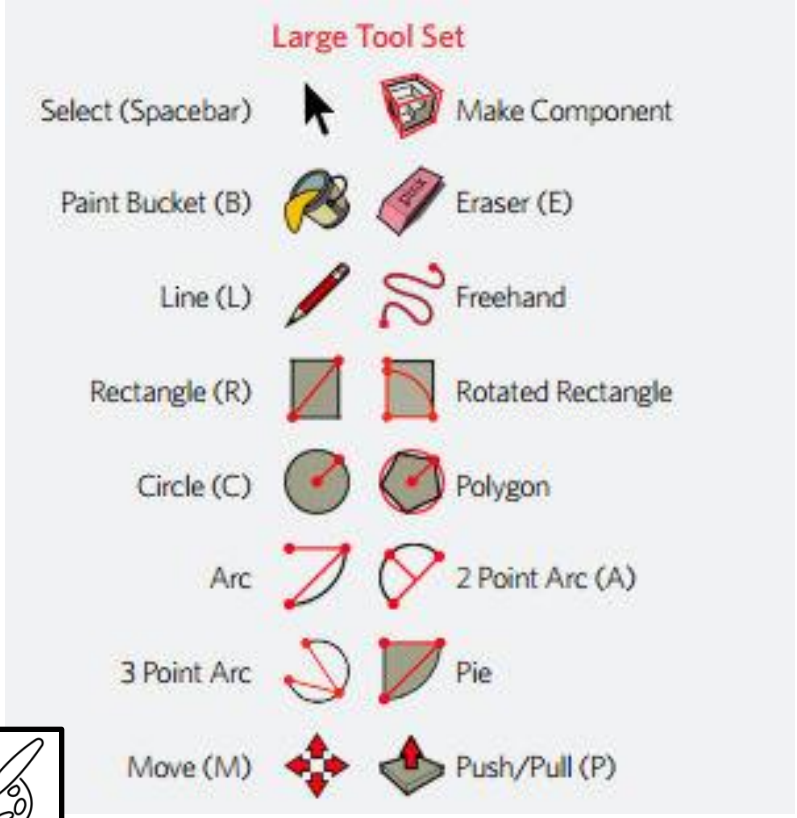
What are xy and z axes?
Definition of x-y-z matrix
The x-axis and y-axis represent the first two dimensions; the z-axis, the third dimension. In a graphic image, the x and y denote width and height; the z denotes depth.

9. 2D Design – Computer Aided Design Software.

What is sketch up?

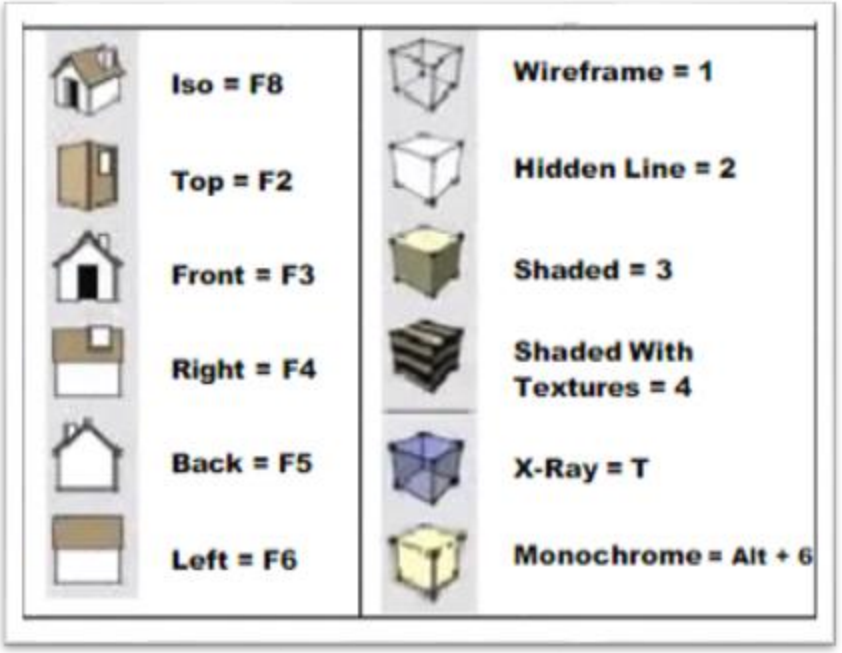
SketchUp is a user-friendly 3D modelling software used for a variety of drawing applications such as architectural, interior design, landscape architecture, engineering, and film design. It allows you to create and edit 3D models quickly and easily with a simple, intuitive interface. Whether you're designing a house, a piece of furniture, or an entire city block, SketchUp can help you visualize your ideas.

SketchUp



10. Drawing styles and viewpoints

With Sketchup you can view your designs in different orientations from 3D orthographic to the top view, front view and side views. This allows you to understand what your design looks like in 3 dimensions.



You can also change the way that you visualise the 3D drawing that you have created from a wire frame view which make the design have no walls or solid sides to a shaded view with texture – this means that you can add colours and textures like bricks or glass to your design for a more realistic view.

Challenge!

Sketchup is a cloud-based program so it can be used anywhere on any computer as long as you have an internet connection – try creating your dream house using the software.

D&T - Textiles

1. Street Art

Street art is a form of visual art created in public spaces. It includes styles like graffiti, stencils, and murals, and is used to express social, political, or personal messages. Street art became popular in the 1970s, particularly in New York, before spreading globally.

Famous artists like **Banksy** (left image), known for his thought-provoking stencils, and **Jean-Michel Basquiat** (right image), who started with graffiti before moving to painting, have helped shape the movement.

Street art often challenges traditional art boundaries and has become a major part of modern culture.

2. Key Words and Definitions

Design Brief: A clear statement that outlines the goals, purpose and requirements for a design project.

Design Specification: A list of detailed requirements a design must meet, including materials, size and features.

Sustainability: Using resources wisely so that they last for the future and do not harm the environment.

Urban: Refers to areas that are related to cities or towns, typically with lots of buildings, people and busy areas.

Contemporary: Something that is modern or happening right now.

Tagging: A form of graffiti where an artist writes their name or symbol in a stylized way, usually on public surfaces.

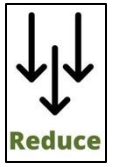
3. Six R's

As designers, we must minimise our environmental impact by considering the 6R's in our designs.

Re-think: Be mindful of what you buy. Ask yourself if you really need something.

Refuse: Don't buy something you don't need. Refuse to buy products that cannot be recycled or reused.

Reduce: Cut down on the amount of products and services you use.



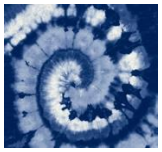
Re-use: Take a product/item and repurpose it for a different item.

Repair: Fix, don't replace your products.

Recycle: Recycle what you cannot reduce, re-use or Repair.

4. Textile techniques

Tie-dye is a fabric-dyeing technique where parts of fabric are tied and dyed to create vibrant patterns. It became popular in the 1960s but has links with ancient techniques practiced in Asia, Africa, and the Americas.



Batik involves covering fabric with wax before dyeing to create intricate patterns. It originated in Indonesia and has been used for centuries.

Stencilling involves cutting a design into a material and applying paint or ink over it. It dates back to ancient Egypt and Greece.

Block printing uses a carved block to print designs onto fabric or paper. It began in China around 200 AD and spread worldwide.

D&T - Textiles

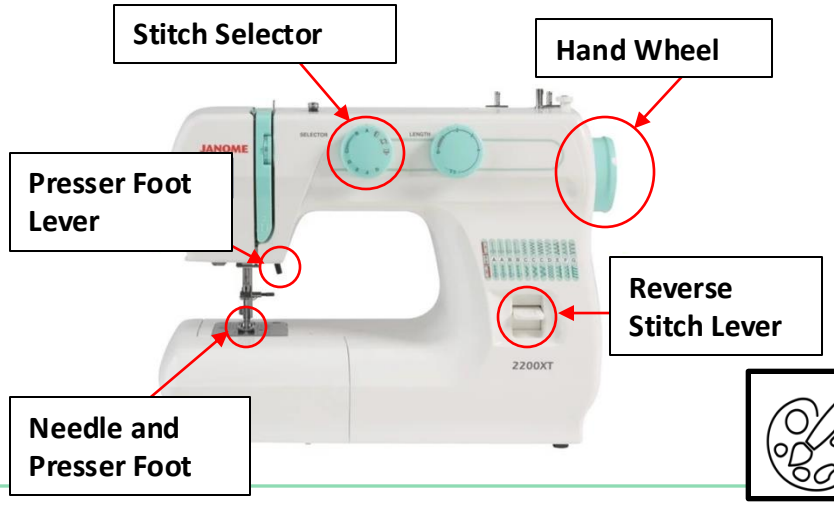
5. Health and safety

Health and Safety in the Textiles Room. Everyone is responsible for health and safety. It's important to follow the rules to protect yourself and others.

Rules to follow:

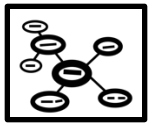
- Listen carefully to instructions.
- Walk calmly around the room; no shouting.
- Pick up any dropped pins or needles — they can hurt your feet.
- Be cautious of cotton spools and threads, which can cause tripping.
- Only use equipment you've been instructed to operate.
- Keep your work area tidy.
- Store bags under tables and coats on chairs.
- Don't distract others while they are using machines.

7. The Sewing Machine



6. Sewing Machine Health & Safety Rules

- Only operate a sewing machine once you have been shown how to use it.
- Always ask permission.
- Sensible behaviour at all times.
- One person only to operate it.
- Keep fingers clear of the needle.
- Switch off the sewing machine after use.
- Tie long hair back.
- No drinks, liquids or wet fabric near sewing machine.
- Tell the teacher if something breaks or stops working.
- **Ask for help if needed.**



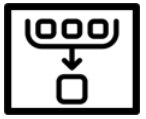
Follow Health & Safety rules at all times!

8. Analysis and evaluation of our own work

It is important to get feedback from others as well as analysing our own work. This enables us to identify areas we could improve, as well as areas which are successful.

It is useful to get feedback from at least three people. It is also important for this feedback to be useful and offer ideas on ways to develop an idea further.

By using feedback from others and your own analysis, you can then evaluate your ideas to plan on ways you could improve it further.



D&T - Resistant Materials

1: Keywords

Classification	Grouping trees based on similar characteristics or traits.
dispersal	How trees spread their seeds.
conversion	Changing a tree trunk into useable sized planks.
Seasoning	Reducing the moisture content of cut timber before use.
Defects	Faults in timber that can either cause problems or be used as a decorative feature.
Veneer	Very thin cut sheets of timber. Can be used to cover cheaper materials.

2: Classification of trees

Classification of timer

Softwood Coniferous

Needle leaves.
Christmas trees.

Open seeds.
Seeds have wings.

Evergreens.
Green all year.

Hardwood Deciduous

Broad leaf.
Large flat leaves

Enclosed seeds.
Berries or fruit

Shed their leaves.
Shuts down for winter

3: seed dispersal

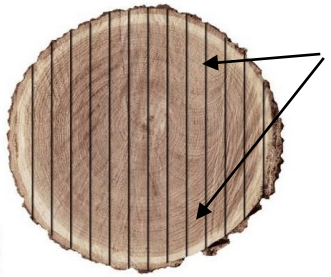
Coniferous trees tend to be tall and thin. They usually use wind to disperse their seeds which is why their seeds have wings. Being tall helps the tree to catch the wind. Being thin means the seed do not have to travel so far away from the tree to germinate.

Deciduous trees tend to be shorter and wider. They usually use animals to disperse their seeds which is why their seeds are in fruit or berries. They need their seeds to travel away from the tree for them to germinate. Animals eat the berries and fruit.

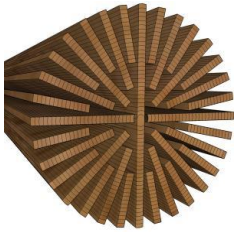
4: Conversion of timber

Once the tree has been felled the trunk needs to be converted into useable sizes. Trunks minus the branches are taken to a sawmill to be converted. Two common methods are:

A. Through and through sawing, also called slash or plain sawing.



Growth ring appears twice in each plank



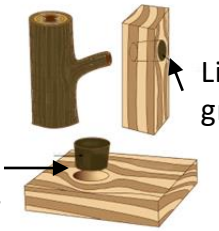
B. Quarter sawing or radial sawing.
Even though the quarter sawn method is a little expensive, it is more decorative and less prone to distort.

D&T - Resistant Materials

5: Defects in timber

Knots: knots are where a branch grew through the tree trunk. They can be either alive or dead. Live knots are also known as green knots. Dead knots are also known as lose knots because they have shrunk and become loose. When they become loose, they can fall out of the plank. Knots can be used as a decorative feature on a piece of work because they distort the grain in a way that can enhance the aesthetic look of the timber.

When choosing timber for a project always check the timber for knots. Wood around the knot is very dense and can be difficult To saw through.



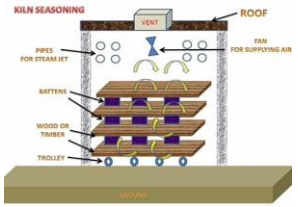
Live or green knot

Dead or loose knot.

6: Seasoning

Seasoning of timber is the process of reducing the moisture content of freshly cut lumber to a level where it can be used without fear of distortion or cracking. The most common method of seasoning is air drying, but kiln drying is also used for more critical applications.

Both have advantages and disadvantages. Some are:



Cheaper
Slower
Less control
Better quality

more expensive
quicker
more control of M/C
less quality

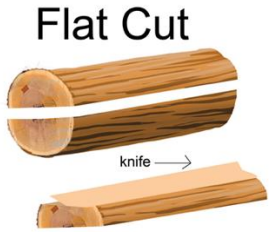
7: Wood finishes

Wood is affected by different environmental elements such as heat and moisture. Different finishes are applied to wood to protect it from these elements and to make it more durable. This can be done by various techniques or by a combination of techniques.

Some finishes such as paint sit on top of the wood. This is covers up the distinct grain pattern and is usually used on cheaper low-quality wood.

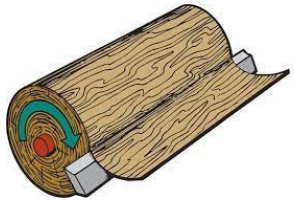
Some finishes such as stains sink into the wood so that the grain pattern is preserved. Stains could be used to add colour to wood with a decorative feature such as a knots or gain pattern.
Wood finishes also include; various waxes and oils.

8: Veneers



Flat Cut / Sliced. Most decorative veneers are flat cut or sliced. This method of cutting involves the blade passing straight over the log from one side to the other.

Rotary Cut veneer is produced by rotating a log while shaving a full-length continuous sheet. This process is the only cutting method that produces whole-piece face veneers.



D&T: Cooking & Nutrition

1. Key Words

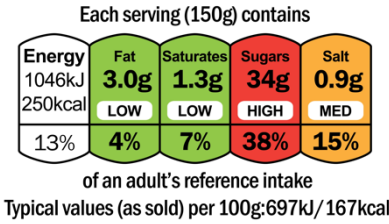
Eatwell Guide – the guide which helps us eat the right sort of foods in the correct quantities. The size of each segment shows how much of that type of food we should eat each day / week.

Marinade – soaking meat in an acidic sauce to tenderise it and add flavour.

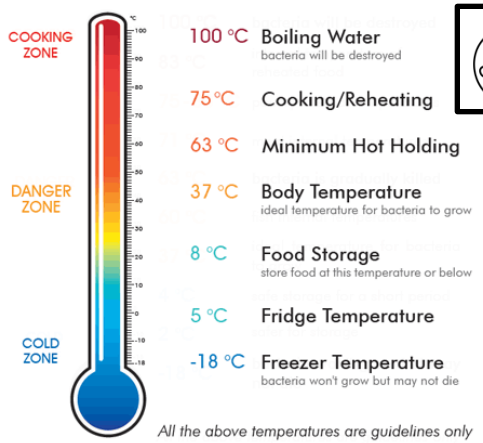
2. Nutritional Information

The traffic light labelling system will tell you whether a food has high, medium or low amounts of fat, saturated fat, sugars and salt. It will also tell you the number of calories and kilojoules in that particular product.

Use food labels to check calories (kcals). **Reduce:** Sugars, Saturated Fat & Salt. **Increase:** Fibre.



3. The Danger Zone Temperatures



4. Food Choices

People eat different foods for many reasons, the thought-shower above highlights some of them.

It might be personal preference or a religious or cultural reason. They might have an ethical reason to buy food with low Food Miles or have chosen not to eat animal products. They may not have the time or skills to make some foods.

5. Research: Definitions

Food Miles – The distance in miles that food travels from where it is grown or raised, through all of its stages of production to where it is eaten. The higher the Food Miles then the further your food has travelled. This means more fossil fuels have been used depleting the Earth's natural resources.

Seasonality – Eating food which is <u>just</u> ripe or 'in season' means it is at its peak nutrition and give you the best health benefits. As soon as its picked or harvested the nutrients reduce over time. A good way to stop this is to immediately freeze the food – a good example of this is peas which can be harvested and frozen ready to sell in less than 3 hours.

Organic - Organic food is farmed avoiding the use of man-made fertilisers, pesticides; growth regulators and livestock feed additives. It means it contains less man-made chemicals which some believe is healthier. However, as less food is made per acre it tends to be more expensive to buy. Typical organic foods are vegetables, fruit and meat.

6. Nutrients

NUTRITION – Macronutrients & Micronutrients compared to the Eatwell Guide

	NUTRIENT (where it appears on The Eatwell Guide)		FOODS IT IS FOUND IN	FUNCTION IN THE BODY
Macronutrients	Carbohydrate (Yellow)		Bread, Pasta, Potatoes, Flour, Rice, Oats	Starchy Carbohydrate – provides slow-release energy
	Fat (Purple & Blue)		Cooking oil, olive oil, butter, margarine, nuts	Insulation, energy store, protects internal organs (visceral fat), provides fat-soluble vitamins
	Protein (Pink & Blue)		Meat, fish, pulses (chickpeas, lentils, baked beans, kidney beans), nuts, eggs	Growth, repair, maintenance of body's cells, also energy
	Fibre (Green & Yellow)		Fruit, vegetables, wholegrain cereals, brown rice, brown bread, whole wheat pasta	Helps digestions allowing food waste to move easily through the body
Micronutrients	Vitamins (Green, Pink, Blue, Yellow)	A	Liver, milk, margarine, orange & yellow vegetables eg:carrots, apricots	Keeps eyes & skin healthy
		B Vitamins	Cereals, meat, fish, eggs, dairy, peas, rice, yeast extract	Releases energy from food, formation of red blood cells
		C	Most fruit & vegetables	Helps immune system protect against disease, helps iron absorbtion
		D	Oily fish, eggs, margarines	Helps calcium absorbtion for strong teeth & bones
	Minerals (All sections)	Calcium	Dairy food, green leafy vegetables	Strong bones & teeth, healthy muscles & nerves
		Iron	Red meat, fish, eggs, dried fruit, dark green vegetables, wholegrain cereals	Formation of red blood cells to carry oxygen around the body
		Sodium (Salt)	Cheese, ready meals & sauces, salted snacks, bacon	Controls water balance in cells of body

7. Research: Diet Through Life

Think about how our dietary needs change from babies, to young children, to adolescents, to pregnant women, to older adults. At each stage of life our nutritional needs are slightly different.

Babies: They are growing rapidly and need their food in a form that can be easily digested.

Young children: At this stage in life energy demands are high, due to rapid growth and high levels of physical activity.

Adolescents: Like children, adolescents are growing rapidly. This is commonly referred to as the **growth spurt**. This rapid development means that adolescents have complex dietary needs. Protein is needed to build new cells. Iron is important for girls who menstruate. Fibre is needed to keep the gut heathy. The quantity of carbohydrate depends on how physically active they are.

Pregnant women: During pregnancy the body's requirement for nutritious food becomes much higher as the foetus grows and develops, and also as the mother's body changes over a nine-month period. Vitamin C helps to maintain a strong immune system. Folate is one of the most important vitamins during pregnancy. It is required for the normal growth and development of the foetus. It is also required to prevent neural tube defects.

Older adults: Energy requirements decrease in older adults. However, the rest of their requirements remain much the same as they did during adulthood.

Baby

Young child

Adolescent

Pregnant woman

Older adult

D&T: Cooking & Nutrition

8. Vitamins

Your body needs vitamins to grow and function properly, they also help you to use other nutrients. You can normally get enough vitamins from a healthy diet that includes plenty of fruit and vegetables. Vitamins can be divided into 2 groups: Fat-Soluble Vitamins (Vitamins A, D, E & K) and Water-Soluble Vitamins (Vitamin C and all the B Vitamins). Fat-Soluble Vitamins are dissolved in and carried around in the body in fat. Whereas Water-Soluble Vitamins are dissolved in water.

Vitamin	Foods	Function(s)
Vitamin A	Cheese, eggs, oily fish	Fighting infection, better vision, keeping skin healthy
Vitamin B1	Peas, bananas, oranges, nuts, bread	Releasing energy from food
Vitamin B2	Milk, eggs	Healthy skin, eyes and nervous system, releasing energy from food
Vitamin B12	Meat, fish, milk, cheese, eggs	Make red blood cells, release energy from food
Vitamin C	Citrus fruits	Healthy skin, blood vessels, bones and cartilage
Vitamin D	Our body creates this from direct sunlight but it is in oily fish, red meat and egg yolks	Helps keep bones, teeth and muscles healthy
Vitamin E	Vegetable oil, olive oil, nuts, seeds, cereals	Healthy skin, eyes and immune system
Vitamin K	Green vegetables, vegetable oil, cereals	Healing wounds

9. Minerals

1. Calcium:
Function: vital for maintaining strong bones and teeth, helping muscle contraction, nerve transmission, and blood clotting.
Sources: Dairy products (milk, cheese, yogurt), leafy green vegetables, nuts, seeds.

2. Iron:
Function: essential for making haemoglobin that carries oxygen from the lungs to the rest of the body. It prevents anaemia and supports energy production.
Sources: Red meat, poultry, fish, beans, lentils, spinach.

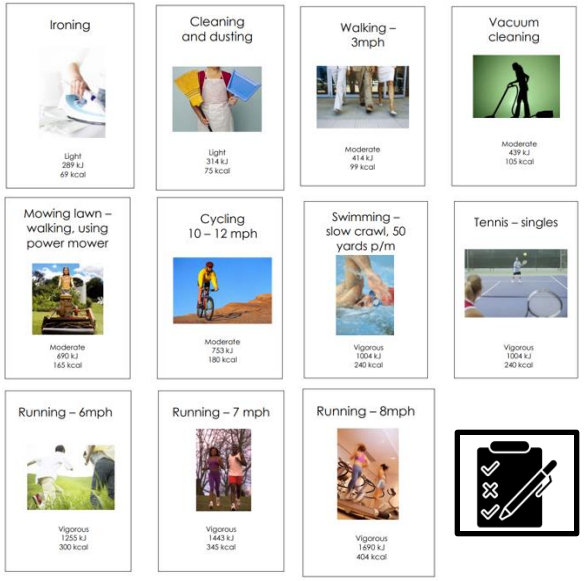
3. Fluoride:
Function: helps prevent tooth decay by strengthening tooth enamel and also contributes to bone health.
Sources: Fluoridated water, tea, fish, and some toothpaste and mouthwashes.

4. Sodium:
Function: regulates fluid balance in the body. But excessive sodium can lead to high blood pressure and other health issues.
Sources: Table salt, processed foods (chips, canned soups, fast food).

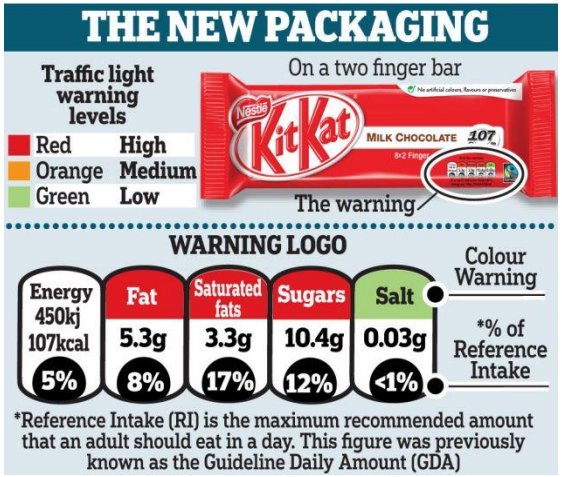
5. Iodine:
Function: essential for the hormones which regulate metabolism, growth, and development. It is especially important for proper brain development during pregnancy.
Sources: Iodized salt, seafood, dairy products

10. Energy used by activity

Below are how many calories a 60kg adult would burn do the activity for 30 minutes.



How many of these activities would you have to do to burn off the calories in a two-finger Kitkat? Now try it for other foods.



History

1) Key Concept: Interpretations

Convincing: Whether something is believable.

Interpretations: How somebody chooses to present the past after an event.

Examples of Historical interpretations…

Books written by historians.

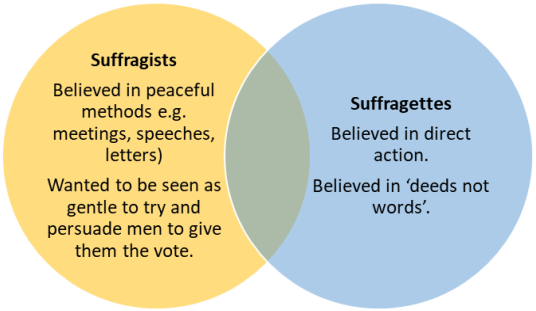
Museums that present historical artefacts.

Films that are made about history.

Documentaries/television shows about History.

Oral History: Where stories about History is passed through generations of people through song or spoken word.

2) Who was fighting for the rights of women?



How did the First World War change attitudes towards women?

- Women ran family businesses and worked in stressful war environments. This showed they could make important decisions.
- Women proved they could do work and still look after their children and homes.
- Women played a vital role in the effort to win the war. Victory was partly owed to the hard work of women during the war.

3) How did women win universal suffrage?

The government felt that some women deserved the vote, as did the working-class men who fought in the war.

In 1918, the **Representation of the People Act** gave *all men* over 21 the right to vote and women over 30 with property qualifications.

Women continued to campaign for the right to vote. In 1928, all women were given the vote the same.

Why was there a general strike in 1923?

Impact of War: After the war, there was a fall in **demand for coal.** This meant that some smaller mines closed.

Technology: British coal mines struggled to compete with coal produced from other countries. This meant that other countries could sell their coal at cheaper prices. The government refused to **nationalise** mines.

4) Key Terms:

Nationalisation: Where the government owns businesses.

Picket: Where striking workers protest outside of their workplace.

National Union of Women's Suffrage Societies (NUWSS): The suffragists.

Women's Social and Political Union (WPSU): The suffragettes.

Strike: When workers stop working to improve their life at work.

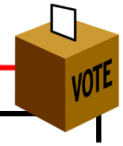
Subsidise: Where the government pays money to keep businesses open.

Trade Union: Organisations that work to secure better working conditions.

Trade Union Congress: An organisation that represents all trade unions.

Universal Suffrage: Where all adults have the right to vote.

Modern Age (20th Century – 1900-Present)



1897: Millicent Fawcet founds the Suffragists.

1903: Emmeline Pankhurst founds the Suffragettes.

1913: Emily Davison dies after being trampled on a horse at the Epsom Derby horse race.

1914: The First World War begins.

1918: The **armistice** is signed, signalling the end of the fighting First World War.

1926: Trade Unions call a **general strike**

1927: The government passed the **Trades Disputes Act** which stopped unions joining together to strike.

History

5) Key Concept: Similarity and Difference

Similarity and difference: The experience of different communities in the past.

Consequence: A result of something else happening.

Impact: How somebody chooses to present the past after an event.

Examples of communities in the early 20th century:

- **Upper Class:** Rich powerful landowners
- **Middle Class:** Educated people often with professional jobs or small business owners.
- **Working class:** Less educated manual labourers such as miners.

6) Fascist Italy:

How did Italy become Fascist?

- **Mussolini** was appointed **Prime Minister** of Italy in 1922. In 1925, **Mussolini** banned all other political parties and declared himself a **totalitarian dictator**.

What was the Italian Government like?

- Fascists believed in **totalitarian** government.
- Fascists believed all Italians must be loyal to their country (the nation). They wanted Italy to be a great country.

7) Communist Russia:

How did Russia become Communist?
In 1917, during the First World War, a group of communists launched a **revolution** that overthrew the

What was the Russian government like?
Russia was a **Communist** government. Stalin was a **dictator** and led a **totalitarian** government.

Who were different groups treated by the Communists?
Religious groups were affected in the 1920s and 1930s, churches were destroyed, and priests were murdered. Women were treated more equally than men in Russia. For example, women had the right to divorce their husbands.
Stalin ordered that non-Russians be murdered.

8) Key Terms:

Communism: An extreme *left-wing* belief. They believe that the government should control everything to make people equal and only working-class people exist.

Cult of Personality: Worshipping a leader to the point where they are seen as God.

Dictatorship: Where one person or small group of people have complete power.

Fascism: An extreme form of *nationalism.* A belief that the nation (your own country) is everything and that everyone should work together to help the nation to succeed.

Ideology: A belief about how a country should be run.

Intolerance of diversity: The refusal to accept any difference.

Nationalism: Wanting your country to succeed at the expense of other countries.

Propaganda: Information (e.g. posters, speeches, media) designed to change how somebody thinks.

Totalitarian: Where the government has total control over people's lives.

Modern Age (1900-Present)

1914: The First World War begins

1917: Russia becomes a *communist* country after the Russian Revolution under the leadership of Vladamir Lenin.

1918: First World War ends.

1922: Mussolini becomes prime minister of Italy.

1924: Stalin becomes leader of Russia after the death of Lenin.

1925: Mussolini bans all political parties and declares himself a 'totalitarian' government.

1945: Defeat in the Second World War leads to the execution of Mussolini by the Italian people.

1953: Stalin dies but the communist dictatorship continues.

History

Key Concept: Interpretations

Convincing: Whether something is believable.

Interpretations: How somebody chooses to present the past after an event.

Examples of Historical Interpretations…

- **Books** written by historians.
- **Museums** that present historical artefacts.
- **Films** that are made about history.
- **Documentaries/television** shows about History.
- **Oral History:** Where stories about History is passed through generations of people through song or spoken word.

9a) What happened to Germany after the First World War?

The Allies (Britain, France and the USA signed the **Treaty of Versailles**. The French wanted to *punish* Germany. Here is what was agreed…

Land – Germany lost 10%.
Army – reduced to 100,000.
Money – pay up £6.6 billion.
Blame – for starting the war.

9b) How did the German people react?

Many Germans were *angry* at the Treaty of Versailles. They thought the Treaty was a ***diktat*** and that the views of Germany were not listened to.

Many **nationalists** were particularly unhappy and new **political parties** were set up such as the **Nazi Party**. Hitler believed that the German government had "**stabbed Germany in the back**."

10) How did Britain respond?

The British Prime Minister, **Neville Chamberlain** followed a policy of *appeasement*. By allowing Hitler to get what he wanted, Chamberlain hoped to avoid another war.

Some people thought this was the right approach. Some said Britain was not ready for war in the early 1930s and that the Treaty of Versailles was too harsh on Germany.

11) What did Hitler do when he was in power?

- In 1935, Hitler revealed his army and Airforce to the world.
- In 1936, Germany invaded the **Rhineland** between Germany and France. Germany was forbidden from having any troops there.
- In 1938, Hitler achieved A*nchluss* by uniting Austria and Germany as one country.
- In 1938, Germany invaded **Czechoslovakia**.
- In 1939, Germany invaded Poland

12) Key Terms:

Appeasement: The idea of giving someone what they want to avoid conflict.

Anschluss: Hitler's ambition to unite Germany and Austria as one country.

Diktat: A "dictated peace". Germany had no say in agreeing the Treaty of Versailles.

League of Nations: An organisation set up after the First World War where countries would work together to solve arguments peacefully.

Lebensraum: *Living space*. Hitler believed Germans should have more land to live on by taking over other countries.

Nationalism: Wanting your country to succeed at the expense of other countries.

Political parties: Groups of people who want to run the country.

Treaty of Versailles: The agreement between Britain, France the USA and Germany to end the First World War.

The Modern Age (1900-Present)

1919: The Treaty of Versailles is agreed between the Allies and Germany.

1925: Hitler publishes his book, *Mein Kampf*.

1933: Hitler becomes the leader of Germany and immediately begins rebuilding Germany's army.

1935: Germany reveals its new army and Airforce.

1936: Germany invades the **Rhineland**.

1938: Hitler unites with Austria and invades Czechoslovakia.

1939: Germany invades Poland. Britain declares war in response.

French

1. Musical instruments & genres

Je joue…	**= I play**
- du violon	**= violin**
- du piano	**= piano**
- de la guitare	**= guitar**
- de la batterie	**= drums**

Ma chanson préférée, c'est…. = my favourite song is…

☺☺	**j'adore**
☺	**j'aime**
☹	**je n'aime pas**
☹☹	**je déteste**

- le rap / le hip-hop / le R'n'B = rap/hiphop/R&B
- le reggae / le rock / le jazz

- la musique classique = classical music
- la musique traditionnelle = traditional music

C'est….. = it's ….

- amusant(e)	**= funny**
- intéressant(e)	**= interesting**
- bon/bonne	**= good**
- nul/nulle	**= rubbish**
- ennuyeux/ennuyeuse	**= boring**

2. The verb 'aller'

The verb *aller* (to go) is an irregular verb. We use this for both present & near future tenses

Present tense:

je vais	**= I go/I'm going**
tu vas	**= you go/you're going**
il va/elle va	**= he/she goes/is going**
nous allons	**= we go/we're going**
vous allez	**= you go/you're going**
ils vont/elles vont	**= they're going**

Near future tense:

Any of the above used with an infinitive forms the near future tense – what we're going to do.
An infinitive will end with ER, IR or RE (manger, regarder, finir etc).
i.e. **Je vais manger** = I'm going to eat

3. Future plans

Je vais visiter …	**= I'm going to visit**
Je vais voyager…	**= I'm going to travel**
Je vais chanter …	**= I'm going to sing**
Je vais écrire …	**= I'm going to write**
Je vais prendre…	**= I'm going to take**
Je vais faire …	**= I'm going to do**

- la semaine prochaine	**= next week**
- l'été prochain	**= next summer**
- l'année prochaine	**= next year**

4. Describing a trip to a concert (perfect tense)

- j'ai dansé	**= I danced**
- j'ai chanté	**= I sang**
- j'ai acheté	**= I bought**
- j'ai retrouvé	**= I met**
- j'ai mangé	**= I ate**

- je n'ai pas mangé/dansé/chanté = I didn't eat/dance/sing

- j'ai bu	**= I drank**
- j'ai vu	**= I saw**
- j'ai pris	**= I took**

- je suis allé(e)	**= I went**
- je ne suis pas allé(e)	**= I didn't go**

- en bus	**= by bus**
- en voiture	**= by car**
- à pied (walk)	**= by foot**
- un billet	**= a ticket**
- en ligne	**= online**

French

5. Comparatives

You use the comparative to compare two or more things.

Plus + adjective + que (more … than)

*Le hip-hop est **plus** amusant **que** la musique classique*

Comparatives you need to know:

- **Plus … que = more … than**
- **Moins … que = less … than**
- **Aussi … que = as … as**

The adjective must agree with the first noun mentioned:

***La** techno est plus original**e** que le rock*

Key adjectives that don't follow the plus… que pattern:

- **Bon (good) -> meilleur(e) que = better than**
- **Mal (bad) -> pire que = worse than**

6. Using 2 tenses together

Present tense	Perfect (past) tense
Regular Verbs	
Je joue (I play)	J'ai joué (I played)
Je mange (I eat)	J'ai mangé (I ate)
Je regarde (I watch)	J'ai regardé (I watched)
_ _ _ _ _ _ _ _ _ _	_ _ _ _ _ _ _ _ _ _ _ _
Irregular Verbs	
Je vais (I go)	Je suis allé(e) (I went)
Je bois (I drink)	J'ai bu (I drank)
Je fais (I do/ make)	J'ai fait (I did/made)
Je prends (I take)	J'ai pris (I took)

7. Time phrases

Past tense time phrases :

Last year	= L'année dernière
Recently	= Récemment
Last week	= la semaine dernière
Last weekend	= le week-end dernier

Present tense time phrases:

Normally	= normalement
Usually	= D'habitude
Sometimes	= Quelquefois / Parfois
On (Mondays)	= Le (lundi)

Future tenses time phrases:

Next year	= l'année prochaine
In the future	= à l'avenir
Next week	= la semaine prochaine
Next weekend	= le week-end prochain

8. The school canteen

Je mange	= I eat
Les élèves mangent (du pain) (bread)	= The students eat
ils / elles boivent (du lait)	= They drink (milk)
ils / elles portent (un uniforme)	= They wear (a uniform)
ils / elles sont (content(e)s)	= They are (happy)

du poulet	= chicken
du riz	= rice
du yaourt	= yoghurt
de la salade	= salad
des frites	= chips
des haricots	= beans
des pommes de terre	= potatoes
un jus de fruits	= fruit juice
de l'eau	= water

French

9. What do you do to save the planet?

Je mange (des produits bio) = I eat (organic products)
Je ne mange pas (de poisson/de viande) = I don't eat (fish/meat)
Je ne porte jamais (des produits en cuir) = I never wear (leather products)
Je ne refuse rien = I refuse nothing

Je suis pour le végétarianisme	Je suis contre le végétarianisme
L'empreinte carbon = carbon footprint Le régime végétarien est plus sain que le régime ordinaire = the vegetarian diet is healthier than an ordinary diet La production de la viande, c'est cruel = meat production is cruel	Il est difficile de faire des repas quand on ne mange pas de viande = it's difficult to cook meals when you don't eat meat La viande c'est très savoureux = meat is very tasty La viande apporte beaucoup de vitamines = meat provides lots of vitamins

10 Taking action for the world

Il faut... = You must...

- ramasser les déchets = pick up litter
- recycler le papier et les bouteilles = recycle paper and bottles
- aller au collège à pied ou à vélo = go to school on foot or by bike
- combattre le changement climatique = fight climate change
- aider les autres = help others

Il ne faut jamais... = You must never...

- manger trop de viande = eat too much meat
- utiliser trop d'énergie = use too much energy
- laisser des sacs en plastique sur la plage = leave plastic bags on the beach

11. What have you done to save the planet?

J'ai ramassé les déchets = I collected litter
J'ai recyclé du papier et du plastique = I recycled paper and plastic
J'ai acheté des produits bio = I bought organic products
Je suis allé au collège à pied = I went to school on foot
On a utilisé moins d'énergie = We used less energy
On a organisé une campagne anti-plastique = We organised an anti-plastic campaign

12. What would you like to change?

Je voudrais ... = I would like ...

- utiliser moins de plastique = to use less plastic
- acheter moins de vêtements = to buy less clothes
- manger moins de viande = to eat less meat
- organiser une campagne anti-déchets = to organise an anti-litter campaign
- faire du travail bénévole = to do voluntary work
- être membre d'un groupe écolo = to be a member of an eco-group

Art

1. What does abstract mean?

Abstract art is art that **does not represent** an accurate depiction of visual **reality**, communicating instead through lines, shapes, colours, forms and gestural marks.

Abstract artists use a variety of techniques to create their work, mixing traditional means with more experimental ideas.

Wassily Kandinsky - "There is no must in art because art is free".
Jackson Pollock - "Abstract art is energy and motion made visible."
Bridget Riley – "Focusing isn't just an optical activity, it is a mental one."

2. Key Words

Abstract: An artwork that doesn't represent the real world.

Imagination: the ability of the mind to be creative or resourceful.

Composition : Composition is the way in which different elements of an artwork are combined or arranged.

Line: mark left by a moving pencil, pen, brush dipped in paint (or any other art medium).

Shape: an area enclosed by a line.

Tone: the darkness or lightness of something. This could be a shade or how light or dark a colour appears.

Colour: Colour is what you see when light shines off an object. An object can absorb light, or it can reflect light. Objects that appear white don't absorb any light; objects that are black are absorbing all light.

Expressive: refers to art which is expressive of the artist's feelings or ideas.

3. Modern Artist Wassily Kandinsky 1866 - 1944

•Wassily Kandinsky is known as the founder of abstraction in western art.

•Working during a tumultuous time in European history, he and his fellow artists involved in movements such as German Expressionism and Bauhaus ma de the leap from the faithful representation of the world, to the first solely abstract works in western art history.

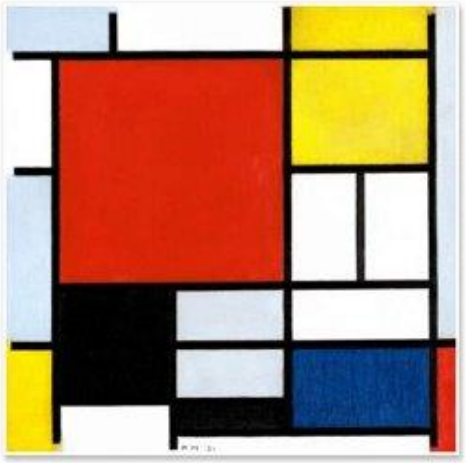
•Inspired by the works of Monet and Matisse, Kandinsky evolved from hyper-stylized figurative form to line and colour innovation. As a result, a new, freer thinking surrounding what was considered art and set the scene for other movements in western contemporary art today.

4. Modern artist -Piet Mondrian 1872-1944

•Dutch pioneer of **abstract** art, who developed from early **landscape** pictures to geometric abstract works.

• In 1914 Mondrian developed a step by step, simplified, abstract style which he called **Neo-Plasticism**, using only three primary colours in a grid of black vertical and horizontal lines on a white ground.

• Moved to London 1938-40, living near Naum Gabo and Ben Nicholson, then in 1940 to New York where he started to develop a more colourful style, with coloured lines and syncopated rhythms. Died in New York.



Composition with red, blue & yellow.

Art

5.Contemporary artist Bridget Riley born 1968

Bridget Riley became an icon, not just of Op art, but of contemporary British painting in the 1960s, and she was the first woman to win the painting prize at the Venice Biennale in 1968.

Riley's innovations in art inspired a generation of Op artists, including Richard Allen and Richard Anuszkiewicz.

Bridget Riley rose to prominence in London in the 1960s with her bold vision for a new language of painting based upon repeated geometric forms. Since then, she has become one of the leading artists of her generation.

What is Op art short for?

Op art is short for 'optical art'. The word optical is used to describe things that relate to how we see.

6. Modern artist -Jackson Pollock 1912 – 1956

- Paul Jackson Pollock was an American painter. A major figure in the abstract expressionist movement.
- Pollock was widely noticed for his "drip technique" of pouring or splashing liquid household paint onto a horizontal surface, enabling him to view and paint his canvases from all angles.
- He was a painter but had a great love for sculpting before he found any success with his paintings.
- In 1943, Guggenheim offered him an exhibition which propelled him into the New York art scene.
- Pollock was fascinated by the patterns of indigenous North American art.

7. How did Jackson Pollock change art?

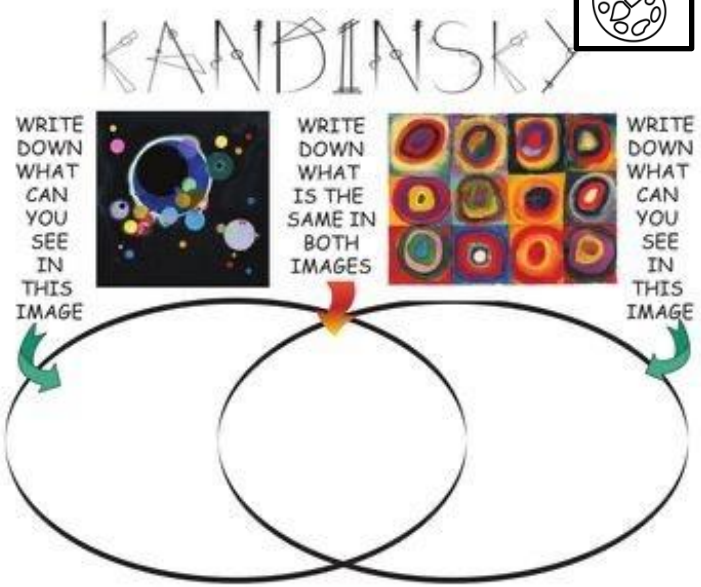
Unlike other artists, Jackson Pollock did not plan the way he wanted his paintings to look.
Many artists plan their works by making small drawings before painting.

Pollock developed what he called a "direct method," applying the paint directly onto an empty canvas.

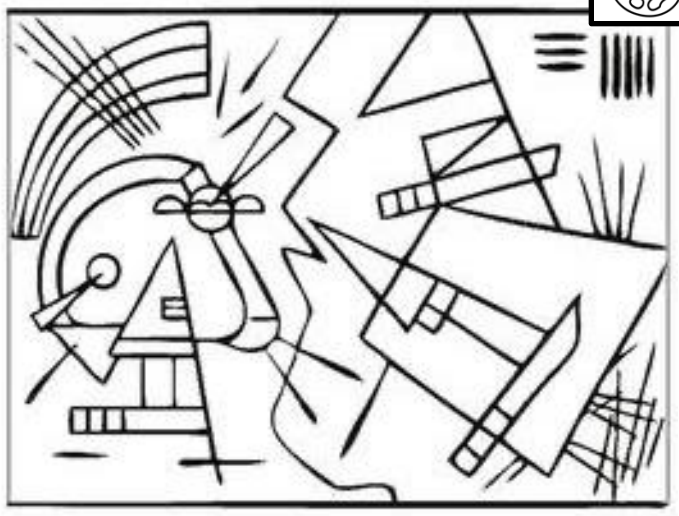
"When I am painting, I have a general notion as to what I am about. I can control the flow of the paint.... There is no accident, just as there is no beginning and no end." Jackson Pollock

Art

8. Wassily Kandinsky

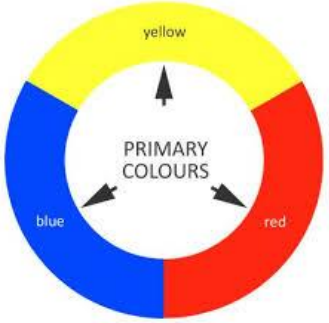


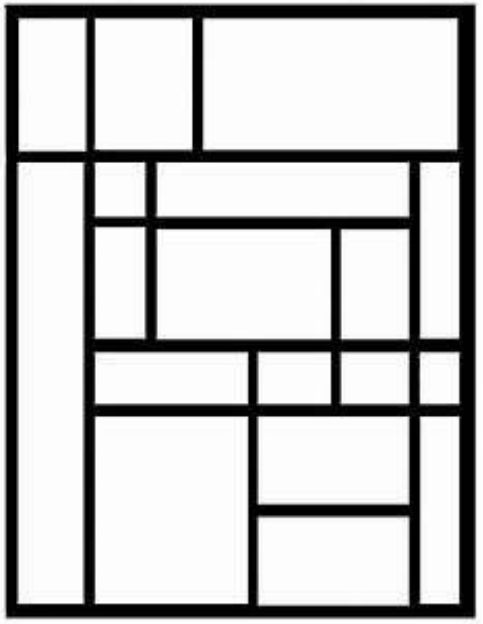
9. Wassily Kandinsky



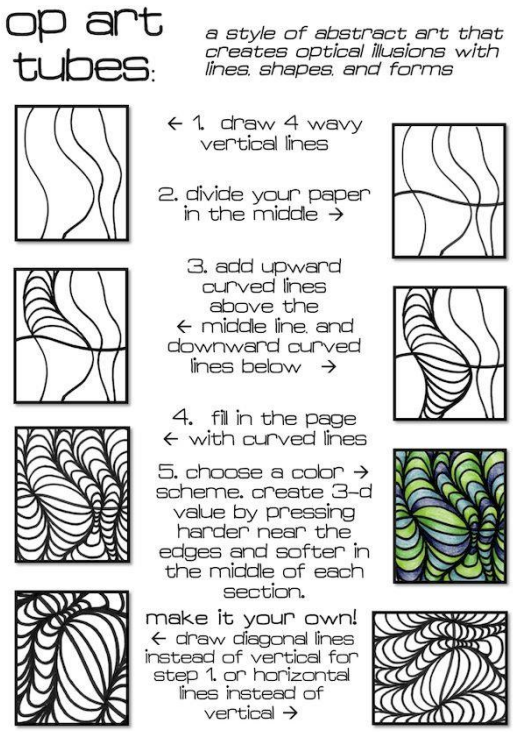
10. Piet Mondrian

Using only primary colours, with black lines and white backgrounds, create your own Mondrian inspired abstract artwork.





11. Bridget Riley



12. Which abstract artist said ….

"My painting does not come from the easel…. On the floor I am more at ease. I feel nearer, more a part of the painting, since this way I can walk around it, work from the four sides and literally be in the painting."

Geography

1. What are fossil fuels?

Fossil fuels are coal, oil and gas. Burning fossil fuels creates heat, but also releases **carbon dioxide**, which adds to the amount of **greenhouse gases**.

Advantages:

- Fossil fuels have been used for many years and so they are easy to use.
- They generate large amounts of energy relatively cheaply.

Disadvantages:

- Burning fossil fuels releases carbon dioxide, adding to **global warming**.
- The UK is dependent on prices set by other countries.

What is climate change?

Climate change refers to changes in the Earth's average temperature. Climate change occurs naturally through things like volcanic eruptions, changes in the Earth's **orbit** and variations in the Sun's energy.

Quaternary period

The period of geological time from about 2.6 million years ago to the present. It is characterized by the appearance and development of humans. We live in the Holocene epoch of the Quaternary period, which covers the last 12,000 years since the end of the last ice age.

2. How is our climate changing?

In recent years, temperatures have been increasing more rapidly than in the past. Global temperatures are more than 1 °C higher than they were around 300 years ago. The **Intergovernmental Panel on Climate Change (IPCC)** report of 2021 says that global warming of 1.5 °C and 2 °C will be exceeded during the 21st century unless deep reductions in greenhouse gas emissions occur in the coming decades.

In fact, 2023 will have been the hottest year on record with temperatures 1.5 degrees above pre-industrial levels. An event called El Nino has contributed to this.

Greenhouse gases

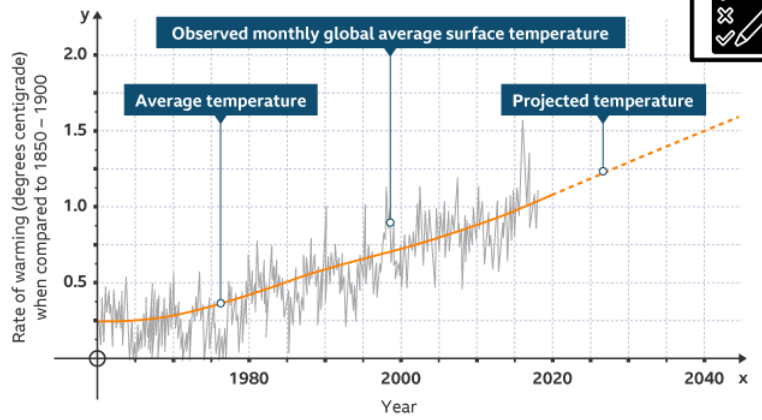
Most scientists agree that human behaviour is causing this increase in temperature. Humans are increasing the concentration of greenhouse gases, such as **carbon dioxide** and **methane**, within the atmosphere.

Greenhouse gases can be released by human activity, such as:

- burning of **fossil fuels**, which releases carbon dioxide into the atmosphere.
- **deforestation**, as trees absorb carbon dioxide and store carbon.
- food waste, which creates methane when it breaks down.

3. Greenhouse Gas Emissions

Carbon dioxide **emissions** are now more than three times higher than they were in 1965. Greenhouse gases **absorb** any heat that is reflected from the Earth. A greater concentration of greenhouse gases means that more heat is absorbed and so the planet warms up.



Humans have been increasing the concentration of greenhouse gases in the atmosphere. This is through activities like burning fossil fuels, deforestation and creating food waste.

4. The greenhouse effect

Thermal energy (heat energy) radiates from the Sun. Some of this hits the Earth. Without this, there would be little or no life on Earth. Not all of the thermal energy that hits the Earth stays here. Some of it is reflected off pale, shiny surfaces like ice and escapes into space.

Some gases in the atmosphere, called **greenhouse gases**, trap escaping thermal energy. This causes some of the thermal energy to return to the surface and warm it up. This is called the **greenhouse effect.** It is much hotter standing in a greenhouse or sitting in a car with the windows up on a sunny day than a cloudy one for the same reason. As there are more greenhouse gases in the atmosphere, the Earth is getting hotter.

Geography

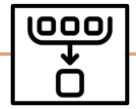
5 and 6. The Greenhouse Effect

The greenhouse effect is a natural process that keeps the planet warm. Without it, humans would not be able to live on Earth. Energy from the Sun warms the Earth's surface. The Earth emits some of this heat back out into the atmosphere. Greenhouse gases in the atmosphere, such as carbon dioxide, then absorb some of this heat, which helps to keep the planet warm.

Evidence for Climate Change

The rings found within a tree trunk can show how old the tree is and what the climate was like during the life of the tree. Some trees can live for thousands of years. Very old trees can give information about past climates.

Ice cores are drilled out of **ice sheets** or **glaciers**. The tiny air bubbles within the ice contain gases found in the atmosphere in the past. Ice cores from Antarctica have provided information about the climate from as far back as 800,000 years ago. Ice sheets and glaciers change in size in response to global temperatures. More than 80 per cent of the snow on Mount Kilimanjaro has melted since 1912, glaciers in the Himalayas are **thawing** so fast that they may disappear completely by 2035, and the rate of melting in parts of the Antarctic has tripled in the last 25 years. Complex climate modelling is used to help predict future changes in climate.



7. The Anthropocene

The Anthropocene is sometimes used to simply describe the time during which humans have had a substantial impact on our planet. Whether or not we are in a new geological age, we are part of a complex, global system and the evidence of our impact on it has become clear.

Impacts of climate change

Climate change is causing global temperatures to increase and average sea levels to rise. Scientists suggest that the impacts of higher temperatures and rising sea levels could include:

- a change to the location of the Earth's **climate belts**, which would make it difficult for some countries to grow food.
- flooding of **coastal** and **low-lying communities**.
- the spread of **tropical diseases**, like **malaria**, to places that are further north and south.

Managing climate change

Climate change can be managed by:

- **Mitigation** – limiting or preventing greenhouse gas emissions. Examples of this are **renewable energy**, such as **solar panels**, and new technology, such as **electric vehicles**.
- **Adaptation** – learning to live with climate change. Examples of this include building **flood defences** to protect against rising sea levels, and developing new crops that are **drought-resistant**.

8. Natural Hazards

Natural hazards are extreme natural events that can cause loss of life, extreme damage to property and disrupt human activities. Some natural hazards, such as flooding, can happen anywhere in the world. Other natural hazards, such as tornadoes, can only happen in specific areas.

Impacts of hazards. Impacts can be classed as **primary** or **secondary** effects. Primary effects are caused by the hazard whereas the secondary effects are caused by the primary effects.

Volcanoes

Primary effects

- As the volcano erupts, streams of molten rock called **lava** flow from the volcano causing damage to **habitats** and property.
- Pyroclastic flows are flows of super-heated gas and ash. These can travel at hundreds of kilometres per hour.
- Ash fall from volcanoes can land on the roofs of buildings causing them to collapse.

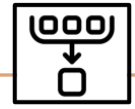
Secondary effects

- Volcanic eruptions can lead to **climate change**. Ash from volcanoes can reflect the sun's energy and lead to cooling, the carbon dioxide released can contribute to **global warming**.
- Roads can become blocked by solidified lava flows making it difficult to travel around.
- There can be positive effects of volcanic eruptions. Ash from the volcano can act as a **fertiliser** for soils.

Earthquakes

Primary effects

- Buildings may collapse due to the shaking of the ground.
- People may die if they are inside a building when it collapses.
- Roads may be blocked, gas and water pipes could be broken and electricity could be cut off.



Geography

9. Impacts of Earthquakes

Secondary effects

- The cost of rebuilding may be high.
- Trade will decrease, especially if the **infrastructure** (roads, airports etc.) have been damaged.
- Spread of diseases may rise. If dead bodies are left in the open for a long period of time they can cause a risk of infectious diseases, such as tuberculosis and hepatitis B.
- Poor sanitation may occur if water pipes were broken during the earthquake.

Responses to earthquakes

Immediate:

- People are rescued from destroyed buildings, People are evacuated, Emergency shelters are put in place.

Long-term:

- Reconstruction of destroyed buildings will take place.
- Infrastructure such as roads repaired.
- Temporary housing is provided.

10. Hazard risks

For each hazard event the risks, or probability, of a particular consequence occurring can vary greatly.

This depends on certain factors. For example in a developing country, the death toll tends to be high but the short-term economic costs are often relatively low, whereas in a developed country, the death toll tends to be low but the short-term economic costs can be extremely high.

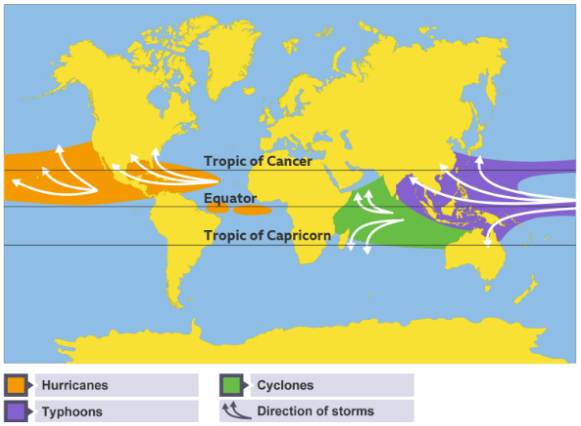
The long-term situation is more complex. Developing countries can be slower to repair damage to roads and buildings. This can lead to a reduction in tourists and therefore a long-term loss of valuable income. Hazard risks are increasing due to population growth, **urbanisation**, pressure on **marginal land** and changes to the natural environment.

11. Tropical Revolving Storms

What are tropical storms?

Hurricanes, typhoons and cyclones are all names used to refer to violent, rotating, tropical storms. The term for these storms changes, depending on where they occur. If they form over the Atlantic Ocean or the Eastern Pacific Ocean, they are called hurricanes.
If they occur in the Far East, near places such as Japan, they are known as typhoons and if they occur in the Indian Ocean they are known as cyclones.

Tropical storm world map

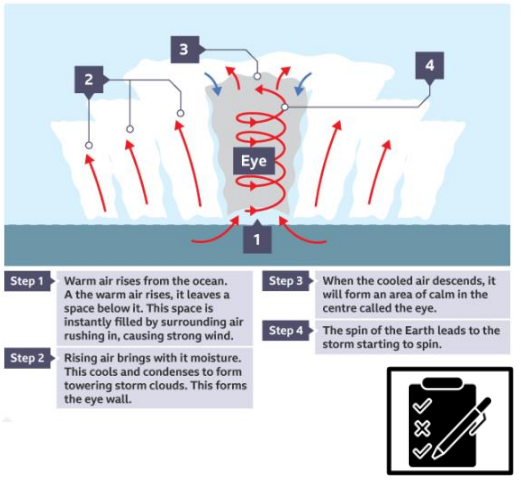


A map of the world, with coloured areas showing where different storms form

For a tropical storm to form, there needs to be a warm ocean (27 °C or above) and light winds.
As tropical storms require warm oceans, they are normally found in tropical regions between 5° and 30° north and south of the equator where the water is warmest.
They usually form in the late summer when sea temperatures are at their highest.

12. Climate Change

The formation of a tropical storm



Scientists believe that **climate change** may affect tropical storms.
As the Earth warms so to do the oceans. If more of the oceans are above 27 °C, more places may experience tropical storms.
Higher temperatures may also mean more energy for a tropical storm meaning they become more powerful and cause more damage.
Primary effects may include strong winds, heavy rain and storm surges lead to buildings being destroyed or flooded. Roads, railways, electricity supplies and other **infrastructure** being damaged.
Secondary effects may include food and clean water shortages. Jobs being lost as businesses are damaged. The costs of damage
Landslides which can cause people to become homeless and cause evacuation difficulties for the emergency services

READING Log

Book and Author	Next page	Comments and signature

READING Log

Book and Author	Next page	Comments and signature