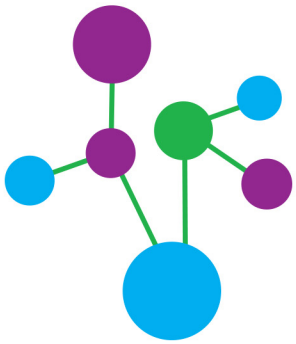
NAME: _____

TERM 1&2

YEAR 10
FOUNDATION



PLYMPTON ACADEMY

HANDBOOK

TERM 1&2

Year 10 Acting

Component 1

This semester we will be completing your work on Component 1 One Man Two Guvnors. You must make sure that you include and understand the following information in this knowledge organiser.

Task 1: Front page: Create a collage showing all elements of Theatre Production.

Task 2: Write the roles and responsibilities of professionals (director, performer, lighting designer, Set designer, costume designer) in the industry using keywords and examples

Task 3: Create a display page (2 x A4 sides)for the pieces you are studying

Task 4: Explain the stylistic quality of the production.

Task 5: Roles and responsibilities of the performance team.

Task 6: Theme of the play.

Task 7: State the genre of the play ... then explain how this is communicated.

Task 8: Explain the purpose of the play.

Task 9: Compare and contrast the repertoire you have studied.

List of research for Component 1:

> History of Theatre
> Design elements of theatre
> Research into genres of plays
> Roles and responsibilities of theatre practitioners
> Research about OM2G's (character list, plot synopsis, genre, original performances conditions, roles in the production, design elements)
> P.E.E paragraphs explaining scenes in OM2G)

Brief Synopsis *One Man, Two Guvnors* is a fast-paced, hilarious farce that follows the mixed fortunes of Francis Henshall. Down on his luck and permanently hungry, Francis suddenly finds himself employed by two bosses. His first guvnor is Roscoe Crabbe, a revered London gangster who has, apparently, come to Brighton to claim money owed to him by his fiancee's father, Charlie Clench. However it soon becomes clear that Roscoe is, in fact, his twin sister Rachel Crabbe in disguise. Roscoe was killed by Rachel's boyfriend, Stanley Stubbers, and she wants the money to flee the country with Stanley. Unfortunately for Francis, his second boss is Stanley, who does not know that Rachel is in Brighton. Stanley is hiding from the police, waiting to be reunited with Rachel. To prevent discovery and earn money from both guvnors, Francis must keep Rachel and Stanley apart. To aid him in his quest, Francis enlists help from the audience and frequently brings unsuspecting audience members up on to the stage to do his job for him. Meanwhile, Roscoe's fiancee and Charlie's daughter, Pauline Clench, must keep Rachel's disguise a secret, risking her own future happiness with wannabe thespian, Alan Dangle. As Francis's world plunges into further mayhem and confusion, his attempts to woo Dolly, Charlie's bookkeeper, go awry and he must prove to her that he is a good, honest man. Believing Stanley to be dead, Rachel finally ditches her disguise but she is soon reunited with her lover. Normality is restored as Francis plans to take Dolly on holiday to Majorca, Pauline and Alan are reunited, and Rachel and Stanley decide to marry and turn themselves in to the police. *One Man, Two Guvnors* is a rollicking farce, which often breaks the fourth wall, as Francis enlists the aid of willing and unwilling audience members in his quest to serve two masters and finally get a good meal.

Fill the outside of the ring with theatrical skills that will help assist your writing

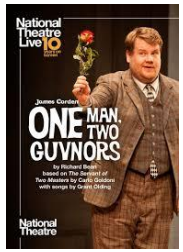
Fill this ring with ALL of your knowledge of OM2G

OM2G

Exaggeration in physicality- Lazzi's

Commedia Dell'Arte Stock Characters

One Man Two Guvnors



Performance characteristics:
One Man Two Guvnors is a predominantly comedy themed play which shows a range of exaggerated and melodramatic characters navigating their way to the end of the story where all their secrets are revealed. Actors use a high level of exaggeration, expression through both their vocal abilities and physicality. Characters such as Francis also tend to break the fourth wall often and address the audience regarding the trouble he has gotten himself into this time!

Staging requirements: The play was written based in the time era of the 1960's so therefore this should be conveyed through design elements such as set, costume, props and music. Companies could experiment with performing it using different types of staging exploring the use of the multiple scene changes. The decision could be made to set it in a different time and/or place, finding parallels with the theme of social class in different locations.

Original Production- One Servant to Two Masters.

Originally written in 1745 by Carlo Goldoni, the story of the classic Zanni / servant character being employed by his masters.

The play tells the story of a hungry servant who, upon realising that working for two masters could ensure him a greater supply of food, tries to do the job of two men while working desperately to conceal that fact from both employers.
The play's most famous scene takes place during a feast, when the starving Zanni attempts to serve dinner to both his masters' at the same time, without either finding out (and desperately trying to have his own dinner as well!).

Themes:
Lying
Greed
Lust
Men and women
Money
Identity
Love
Social Class

Lazzi's- What are they?
A Lazzi is defined as a improvised comedic dialogue or action. They can usually add to the plot, scene or add comedic relief in an ordinarily neutral scene.

Lazzi's are usually associated with the fifteenth century Commedia Dell'Arte! This usually helps keep the pace of a fast moving comedic play where we see the stock characters never learning from their mistakes!

Lazzi's can be split up into various subcategories such as: food, violence, acrobatic, language, props, stupidity and more!

Context: The play is set in the early 1960's Brighton-UK. We see this time era shown by many elements of production such as the characters clothing, the decoration of the set and props.
There is comment towards views of the time in regards to social class- rich and poor and equality- men and women.

Characters:
Francis Henshall
Stanley Stubbers
Rachel Crabbe
Alfie
Harry Dangle
Lloyd Boateng
Pauline Clench
Charlie Clench
Alan Dangle
Dolly

Year 10 Acting

Component 2

This semester we will be focusing on the Component 2 performance of either *A Monster Calls* or *Curious Incident.* You will need to understand the research behind the production and apply skills to this research.

A Monster Calls

Synopsis: Thirteen year old Conor O'Malley our main character is dealing with far more than other boys his age. His beloved and devoted mother is ill with cancer and he is experiencing nightmares. He has little in common with his imperious grandmother. His father has resettled thousands of miles away. But Conor finds a most unlikely ally when the Monster appears at his bedroom window one night. Ancient, wild, and relentless the Monster doesn't at first phase Conor as his nightmares are far scarier. However, this is until the Monster demands the scariest thing of all from Conor - The truth about his nightmares. The Monster guides Conor on a journey of courage, faith, and truth that powerfully fuses imagination and reality.

Characters:

- Conor O'Malley- Main character
- The Monster- Who haunts Conor
- Mother- Chronically ill
- Father- Lives far away
- Sully- School Bully
- Anton- School Bully
- Harry- School Bully
- Lily- Conor's Best Friend
- Grandma- Cold and strict
- Mrs Marl- English Teacher
- Large Ensemble

Themes: Death, isolation, grief, honesty, truth, reality

Curious Incident of the Dog in the Night-Time

Synopsis: Our main character, Christopher Boone, a fifteen year old boy who has ASD- Autism Spectrum Disorder, has found his neighbours dog dead and he has been killed. He sets out on his investigation to find the murderer of the dog Wellington, showing how somebody with ASD navigates the world around them including socially, sensory and trust. As Christopher continues his journey, despite his fathers disapproval, he uncovers more to the story than thought possible. Finding letters that alert him to the news that his mother did not die as his father first told him, but instead had moved away, he loses all trust in his father and begins his next journey to London to find his mother.

Characters:

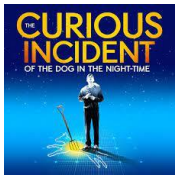
- Christopher Boone- Main character with ASD
- Ed Boone- Christophers Dad
- Siobhan- Christophers Therapist
- Judy Boone- Christophers Mum
- Mrs Shears- Next door neighbour
- Mr Shears- Judy's new partner
- Mrs Alexander- Elderly neighbour
- Uncle Terry- Christophers Uncle
- Mrs Gascoyne- Christopher's Teacher
- Mr. Thompson- Neighbour
- Mr. Wise- Neighbour
- Police Man
- Duty Sergeant
- Large Ensemble

Themes: Invisible disabilities, loss, independance, trust, adventure

Skills to work on:

- Learning your lines
- Technical skills
- Stylistic skills
- Interpretative skills
- Collaboration skills
- Physical skills
- Vocal skills
- Organisational skills
- Responding to feedback

Technical skills, stylistic skills and interpretative skills > To research the difference between these three skills and begin to create a list of skills that would go under these headings.



Tasks:

1. To write out this information into a display poster. To use colours, information and more research to create a poster that could be shown in school and that gathers your knowledge.
2. To use this research as a starting point and to research the sub-heading and find out more information about your piece. Write this down and bring it to our next lesson.
3. To take one of the scenes and to block this section. This will be to create/ write up what we are going to do with the scene and how we are going to interpret this for an audience.
4. To research your character and find out more information about your character's' development and background.
5. To choose a skill/ keyword and write a strength or area for improvement about the lesson for that week.

Year 10 Acting

Component 1 & 2 keyword support

It is important that you are working on understanding each of the terms in this performing arts glossary. This will support you in Component 1 and 2.

Keywords

Drama key words glossary…

- **Actions/Intentions:** The action verbs the actor uses to fulfill the Objective/Driving Question. i.e. to possess.
- **Activity:** A specific physical task that may or may not be connected to an action, such as a character loading a gun or packing a suitcase.
- **Ad-Lib:** Spoken words (sometimes witty comments) said out loud that are not in the script. They can also be given "off the cuff" when another actor forgets a line.
- **Apron:** The area of the stage in front of the proscenium arch.
- **Arena:** A type of stage where the audience is seated on three sides (also referred to as Thrust).
- **Blocking:** To set the movements of actors on a stage or set. Also, any given movement that enhances the scene, such as a specific character gesture.
- **Characterisation:** The actor using their craft to explore and develop the specific qualities of a character.
- **Cultural:** Relating to the ideas, customs, and social behaviour of a society.
- **Dialogue:** The written words spoken by the actors/characters.
- **Direct address:** Where an actor directly speaks to/ addresses and audience.
- **Dramaturge:** A profession in theatre that deals mainly with the research and development of plays. The dramaturge often assists the director in the preparation of a production.
- **Duologue:** a play or part of a play with speaking roles for only two actors.
- **Emotion:** The agitation of feelings such as: sadness, power, fear, love, hate and joy.
- **Endowment:** To give physical or emotional attributes to your character, to create more reality and meaning to further the needs of the story. Objects can also be endowed with physical, emotional or historical attributes: shaving without a blade, removing wet clothing when it's not wet, drinking water as if it's vodka.
- **Facial expressions:** A facial expression conveys an emotion that tells us about the character and the way they react to the situation. It may also tell us something about that situation, eg if the character is very shocked when something happens. A facial expression can also convey the character's true feelings.
- **Fourth wall:** The imaginary wall which separates the actors from the audience, and the audience from the stage. The actor uses it to create the reality in the scene, and keep one's mind in the world of the film or play.
- **Given circumstances:** The background and current circumstances of a character, ranging from who you are, where you are, and why you are doing it. The costumes, sets and lighting—all the circumstances that are given to the actor to take into account as they create their role
- **Historical:** of or concerning history or past events.
- **Improvisation:** Setting out to do a scene with no pre-planned or written idea. A process leading to spontaneous discovery that allows the actor to find real, organic impulses within themselves.
- **Intention:** Another word for an acting objective, or action, that an actor pursues while onstage.
- **Levels:** Levels can be used to suggest status - meaning the power or authority one character has over another. It's important to consider what the use of levels suggests when staging a scene. Levels can also be used to suggest various locations..
- **Magic if/What if?:** Created by Stanislavsky, the actor tries to answer the question, "If this were real, how would I react?"
- **Monologue:** An uninterrupted speech by a character in a performance. The monologue may be to another character or the audience.
- **Motivation:** The Why? The reason a character pursues a particular objective or super objective.
- **Naturalism:** A naturalistic style of theatre used to make the acting and scenes seem real and relatable to an audience.
- **Objective:** A character's pursuit of a specific goal in a scene. Also referred to as the intention or driving question.
- **Pace:** The speed at which you pick up your cue and deliver the next line of your dialogue. Pace can also be the speed that creates a style for the piece.
- **Physical gesture:** A specific movement or physical action of a character that expresses the psychology, feelings and desires incorporated into one gesture. It is often used by the actor to awaken the essence of his character.
- **Physical Theatre:** Physical theatre is used to describe any mode of performance that pursues storytelling or drama through primarily and secondarily physical and mental means. ... Work has inter-disciplinary origins - it crosses between music, dance, visual art as well as theatre.
- **Physicalisation:** To express with the body. Showing as opposed to telling. Externals of a character, such as how they eat, walk and talk.
- **Political:** relating to the government or public affairs of a country.
- **Projection:** Generally, the ability to be heard by the audience.
- **Representational:** Represents "realism." Characters in their real lives that are not aware the audience is there.
- **Semiotics:** the study of signs and symbols and their use or interpretation.
- **Social:** relating to society or its organization.
- **Sound FX:** any sound artificially produced, reproduced from a recording, etc, to create a theatrical effect.

Component 1 Support:

P.E.E paragraph

Point- To make a point in a paragraph is the specific argument or statement that you want to make.

Evidence- You must then provide evidence to show that your point is true and give facts. This might be a quote from a scene, a moment in the play, something the character says or research from the director.

Explanation- You will then need to explain why you have chosen this point and evidence and how you have explored it through theory and practically.

Point:

- In my opinion…
- The writer uses…
- Similarly…
- In contrast…
- One way the writer creates atmosphere is through…
- The writer presents their character as…
- The author is conveying the message that…
- It appears that…
- The writer explores/ emphasises/ depicts/ demonstrates…

Evidence:

- An example of this is…
- We see this in chapter/ line…
- This idea is demonstrated…
- This is evident when the author uses…
- When the character declares…
- For example…
- For instance…
- We see this when…
- This is highlighted in…
- The phrase/ word/ line…
- The writer describes this…
- This is highlighted in…

Explain:

- The shows/ suggests/ indicates…
- This demonstrates the writer's intention to…
- This is significant because…
- The writer uses this technique to…
- The context of this key fact is that…
- The adjective/ verb/ noun shows…
- This creates the image/ ideas that…
- This idea clearly links to…

ACTING

AO1 EXPLORE

DEVELOP

DEVELOP IDEAS

INVESTIGATE & RESEARCH OTHER ARTISTS WORK

ANALYSE

ANNOTATE

ANNOTATIONS

As a general rule, always try to say:
- **WHAT** you have looked at
- **WHO** made it
- **WHEN** it was made
- **WHY** it is inspiring to you
- **HOW** it will effect your own work

When talking about your own work, try to say:
- **WHAT** you have done
- **HOW** have you done it
- **WHAT** inspired you
- **WHAT** else did you try
- **WHY** is it successful
- **IS** there anything you would change

ALWAYS TRY TO BE POSITIVE!

AO4 OUTCOME

PRESENT

FINAL IDEAS

DEVELOPED AS PLANNED

CLEARLY RESPONDS TO ARTISTS EXPLORED

CONNECTION

CONCLUSION

AO2 REVIEW

REFINE

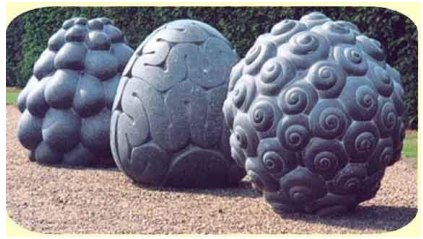
EXPERIMENT

EXPLORE DIFFERENT IDEAS AND MEDIA

A RANGE OF TECHNIQUES & PROCESSESS

SELECT

IMPROVE



Artist References: Peter Randall Page, Aurora Robson, Dale Chihuly, Eduardo Paolozzi, Jim Dine, Hannah Hunter

Sketchbooks should show your thoughts, ideas, sketches, annotations, development and research of other artists.

AO3 EVIDENCE

RECORD

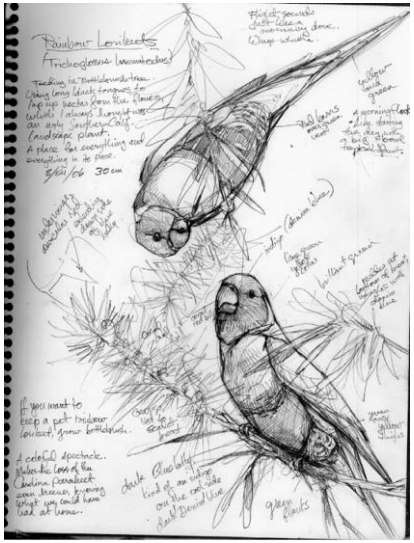
PRESENT IDEAS

PRIMARY OBSERVATION

DRAWING, PAINTING, PRINTING, PHOTGRAPHY, WRITING, PHOTPGRAPY...

ANNOTATE

DIFFERENT MEDIA



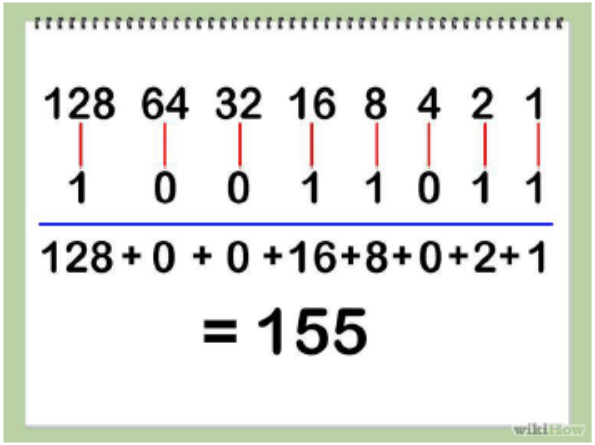
Extended learning: Homework tasks will be set regularly by your class teacher. These tasks should take you on average 40 minutes to complete and you will have a week to complete each task. All homework tasks will relate directly to your coursework portfolio and are important part of your project work.

ART & DESIGN - Mechanic Organic

Converting between Bases

1

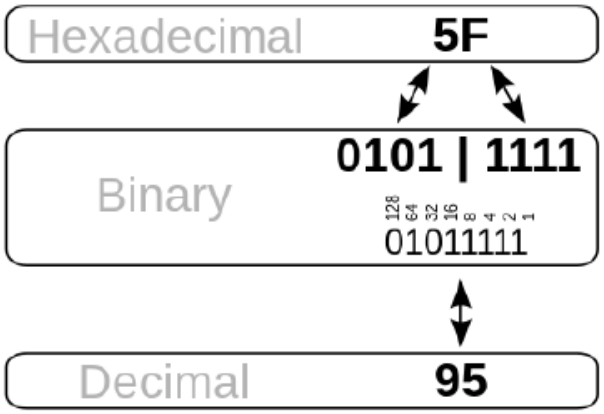
Binary to Denary



Write the column values out above your binary number. Only add the column value where the binary number is one.

2

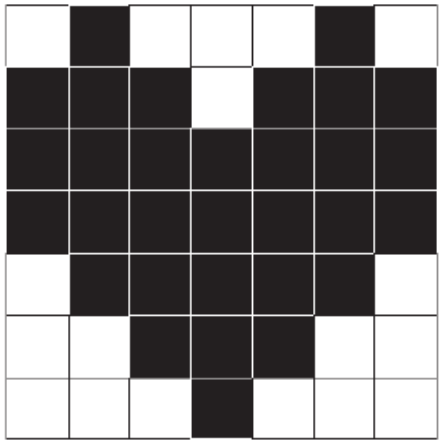
Binary to Hexadecimal



Each hex character is equal to a binary nibble, join the two nibbles together to make your binary number.

Binary Bitmap Images

1



Each square is referred to as a pixel. Each pixel can either be on or off. If the pixel is blank usually you would say the value of this pixel is 0 and if the pixel is black then the value of this pixel is 1. Can you work out the binary combination for the image above?

Adding Binary

1

Rules for adding binary:

0 + 0 = 0

0 + 1 = 1

1 + 1 = 10

1 + 1 + 1 = 11

Key Vocabulary

1	Storage Capacity	Bit – A single binary digit e.g. 0 or 1
		Nibble – Four binary digits e.g. 1011
		Byte – Eight binary digits e.g. 00110101
2	Binary	This numbering system only uses two digits: 0 which means off and 1 which means on.
3	Denary	This numbering system uses ten digits: 0-9.
4	Hexadecimal	This numbering system uses sixteen characters: 0-9 and the A-F
5	Overflow	When adding binary numbers together if your answer results with more than 8 bits an overflow has occurred. e.g. 1 11101011

1. Data units

Bit (b)	The smallest unit of data. 0 or 1
Nibble (N)	4 bits
Byte (B)	8 bits (note the difference between b and B)
Kilobyte (KB)	1000 bytes. Note KB is different from Kb
Megabyte (MB)	1000 KB
Gigabyte (GB)	1000 MB
Terabyte (TB)	1000 GB
Petabyte (PB)	1000 TB

2. Conversions

- Binary to Denary
- Denary to Binary
- Hexadecimal to Denary
- Denary to Hexadecimal
- Binary to Hexadecimal
- Hexadecimal to Binary
- Left Binary Shift
- Right Binary Shift

3. Operations

Binary addition	You should arrange the two binary numbers above each other so that the columns line up. Start on the rightmost digit and add them. If there are any carries, write them down next to the next left column.
Overflow	If the answer to the left column results in a carry, this is known as an overflow and it causes an overflow error. This can cause problems if a computer program hasn't been written to handle overflows.
Left Binary Shift	Make the number longer, and therefore bigger. Each place it shifts will double the value. A binary left shift of one place (<<1) will double the value, a binary left shift of two places (<<2) will quadruple (multiply by 4).
Right Binary Shift	Make the number shorter, and smaller. The right most digit is "lost", so we forget about it. A binary right shift of one place (written as >>1) halves the number, and a binary right shift of two places (>>2) will quarter it.

4. Characters

Individual Characters	Each character is assigned an individual binary code to represent it. The number of bits depends on the 'encoding' used
Character Set	The name given to a collection of characters matching to binary codes. There are many examples.
Choice of Character Set	A character set encoded with more bits allows more characters. This is useful for accents, symbols, emojis, other languages (e.g. Chinese)

5. Examples of Character Sets

ASCII	7-bits to represent characters allowing 128 characters to be represented
Unicode	16 / 24 / 32 bits. Covers many modern and historic languages, as well as lots of symbols which are used in maths and other specialist areas. Has more characters than ASCII but needs more bits per character.

6. Images

Bitmap	A means of representing an image digitally. The image is broken into a grid, with each element of the grid (a pixel) being of one colour only.
Pixel	The smallest element of a bitmap image. A "PICture ELement" in its grid.
Colour Depth	The number of bits used to represent each pixel in a bitmap image. An 8 bit image can show 2^8 or 256 colours.
Resolution	In a bitmap image resolution is measured in PPI (Pixels per inch), sometimes called DPI (dots per inch). Higher resolution means better picture quality
Metadata	Data to tell the computer how to decode the image. Includes size in pixels (width x height), colour depth, location where image was taken, etc.
Image size	The size of an image is width x height x colour depth (+10% for metadata)
Factors	Greater colour depth and/or greater resolution will make the file size bigger, and improve the quality of the image; and vice versa

7. Sound

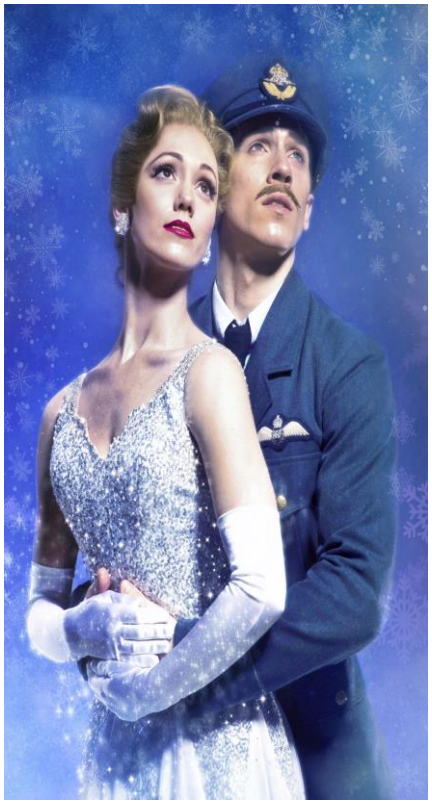
Analogue / Digital	Analogue sound waves must be converted into digital sound waves by taking a sample of the sound at set intervals. This is because computers can only work with digital 'numbers', and not analogue 'sound'
Sample rate	Number of times analogue signal is sampled per second. Measured in Hertz
Bit depth	Number of bits used per sample. Sometimes known as sample resolution
File size	Sample rate x bit depth x seconds
Factors	Larger sample rate and/or bit depth will make the file size bigger and improve the playback quality; and vice versa. Also, making the duration of the recording longer will make the file size bigger, and vice versa

8. Compression

Compression	Compression is when a file is encoded so it uses fewer bits than the original file format
Lossless compression	Gets rid of unnecessary data to re-present data without losing any information. This process is reversible
Lossy compression	Gets rid of the least essential data. This is an irreversible process: once data is lost it can't be recovered

Year 10 Component 1

Matthew Bourne: Cinderella



What is the dance work about?

Matthew Bourne's adaptation of the fairytale classic 'Cinderella' is a true war-time romance. Set in London during the Second World War, Bourne's interpretation follows the thrilling tale of Cinderella and and Harry, an RAF pilot. Both Cinderella and Harry are together long enough to fall in love before being parted by the horrors of the Blitz.

Physical Skills

Alignment Correct placement of body parts in relation to each other.

Balance A steady or held position achieved by an even distribution of weight.

Control The ability to start and stop movement, change direction and hold a shape efficiently.

Coordination The efficient combination of body parts.

Extension Lengthening one or more muscles or limbs.

Flexibility The range of movement in the joints (involving muscles, tendons and ligaments).

Posture The way the body is held.

Stamina Ability to maintain physical and mental energy over periods of time.

Strength Muscular power.

Performance Skills

Facial Expression Use of the face to show mood, feeling or character.

Musicality The ability to make the unique qualities of the accompaniment evident in performance.

Projection The energy the dancer uses to connect with and draw in the audience.

Energy the force applied to dance to accentuate the weight, attack, strength, and flow of a dancer's movement

Terminology

Actions What a dancer does eg travelling, turning, elevation, gesture, stillness, use of body parts, floor-work and the transference of weight.

Choreographic approach The way in which a choreographer makes the dance.

Choreographic devices Methods used to develop and vary material.

Choreographic intention The aim of the dance; what the choreographer aims to communicate.

Choreographic processes Activities involved in creating dance such as improvisation, selection and development.

Choreography The art of creating dance.

Constituent features
Characteristics of choreography such as style, stimulus, subject matter, number/gender of dancers, action content, choreographic principles, form and structure, physical and aural settings.

Target audience
The effect of something on an audience - what did the director intend the audience to feel/react.

Stylistic Qualities
Features that make a practitioner recognisable. This could be choreography, costumes, plot, lighting, music etc.

Year 10 Component 1

Matthew Bourne's Cinderella:

The show had its World Premiere at Piccadilly Theatre, London on 26 September 1997 and ran until 10 January 1998.
The 2010 revival was first performed on 15 November 2010 at the Theatre Royal, Plymouth then opened on 8 December 2010 at Sadler's Wells Theatre.

Matthew Bourne chose to set his version of *Cinderella* in 1940. Inspired by the knowledge that Prokofiev had written the score for the Bolshoi Ballet's production of *Cinderella* during this era, influenced Matthew to focus on having World War II as a backdrop to the story.

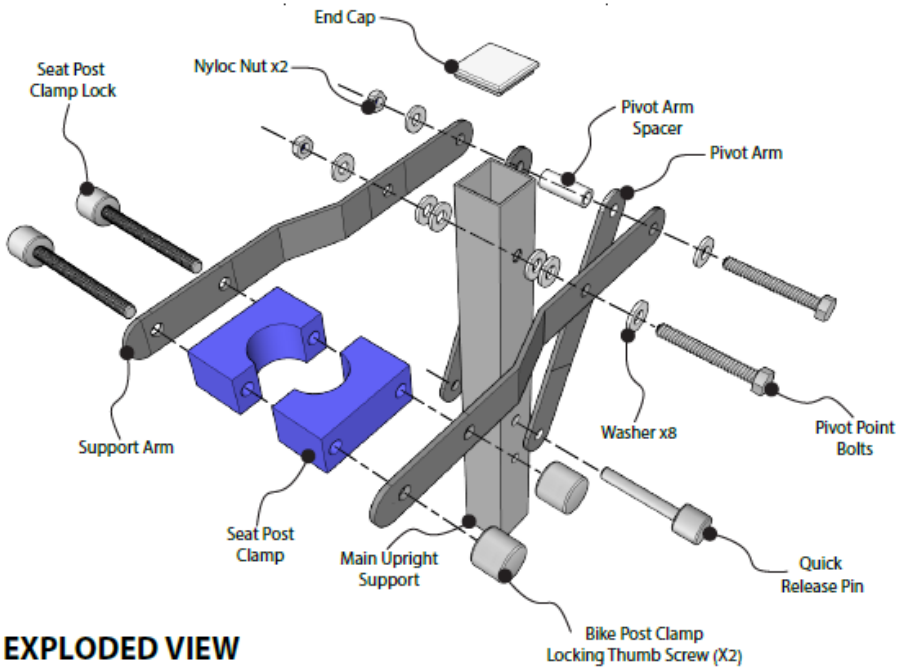
The classic tale of *Cinderella* unveils itself set against the horrors of London during the Blitz, and care and attention was given by Matthew and his team, to be historically accurate.

Key themes:

Family is one of the key themes in the original version of *Cinderella*, as well as in Matthew Bourne's version. The show is full of complex, and often quite challenging, personal relationships between the characters

Life and Death Journeying between the extremities of each of these, we explore the fragility of human existence, and the reality of life.

Conflict Embedded deep within all of these diametric and opposing themes, is the idea of **conflict**: conflict of self, conflict of duty versus volition, conflict of head versus heart, conflict of morals, and of course all set against the backdrop of the conflict of war.



EXPLODED VIEW

DATA PACK

Tap/Thread	Tap Drill Size
M1.6 x 0.35	1.25mm
M2 x 0.4	1.60mm
M2,5 x 0.45	2.05mm
M3 x 0.5	2.50mm
M3.5 x 0.6	2.90mm
M4 x 0.7	3.30mm
M5 x 0.8	4.20mm
M6 x 1	5.00mm
M8 x 1	6.80mm
M10 x1,25	8.50mm

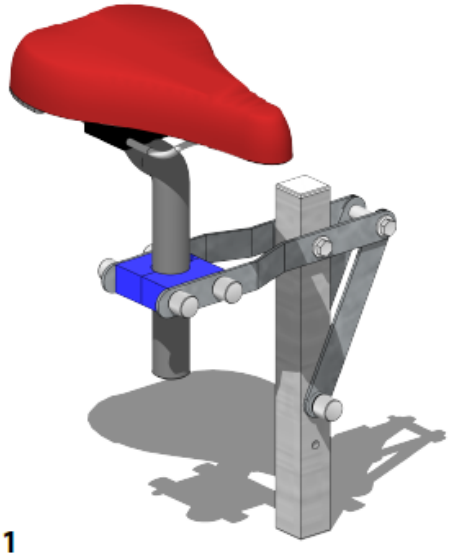
Thread Sizes

Diameter		Speed (rpm)					
Inches	Metric	Softwood	Hardwood	Acrylic	Brass	Aluminum	Steel
Twist drill bits							
1/16 - 3/16	1.6 - 4.8	3000	3000	2500	3000	3000	3000
1/4 - 3/8	12.7 - 9.5	3000	1500	2000	1200	2500	1000
7/16 - 5/8	11.1 - 15.9	1500	750	1500	750	1500	600
Brad-point bits							
3/16	4.8	1800	1200	1500	-	-	-
1/4	6.3	1800	1000	1500	-	-	-
3/8	9.5	1800	750	1500	-	-	-
1/2	12.7	1800	750	1000	-	-	-
5/8	15.9	1800	500	750	-	-	-
Forstner bits							
1/4 - 3/8	6.3 - 9.5	2400	700	-	-	-	-
1/2 - 5/8	12.7 - 15.9	2400	500	250	-	-	-
3/4 - 1	19.05 - 25.4	1500	500	250	-	-	-
Spade bits							
1/4 - 1/2	6.35 - 12.7	2000	1500	-	-	-	-
5/8 - 1	15.9 - 25.4	1750	1500	-	-	-	-
1 1/8 - 1 1/2		1500	1000	-	-	-	-
1 5/8 - 2		1200	700	-	-	-	

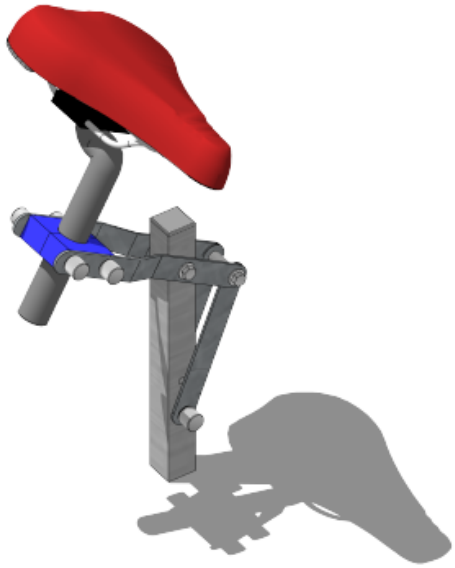
Drill Speeds

Material	Turning Speed HSS RPM	Drilling Speed 6-10 mm HSS RPM	Milling Speed HSS in RPM
Aluminium	2980-3580	597-2390	6665-7300
Mild Steel	400-700	400-700	400-700
Acrylic	3200	2000	4000-8000
FM Brass	1790-2090	800-1200	1790-2090
Nylon	500-600	800-900	6250

Material Speeds

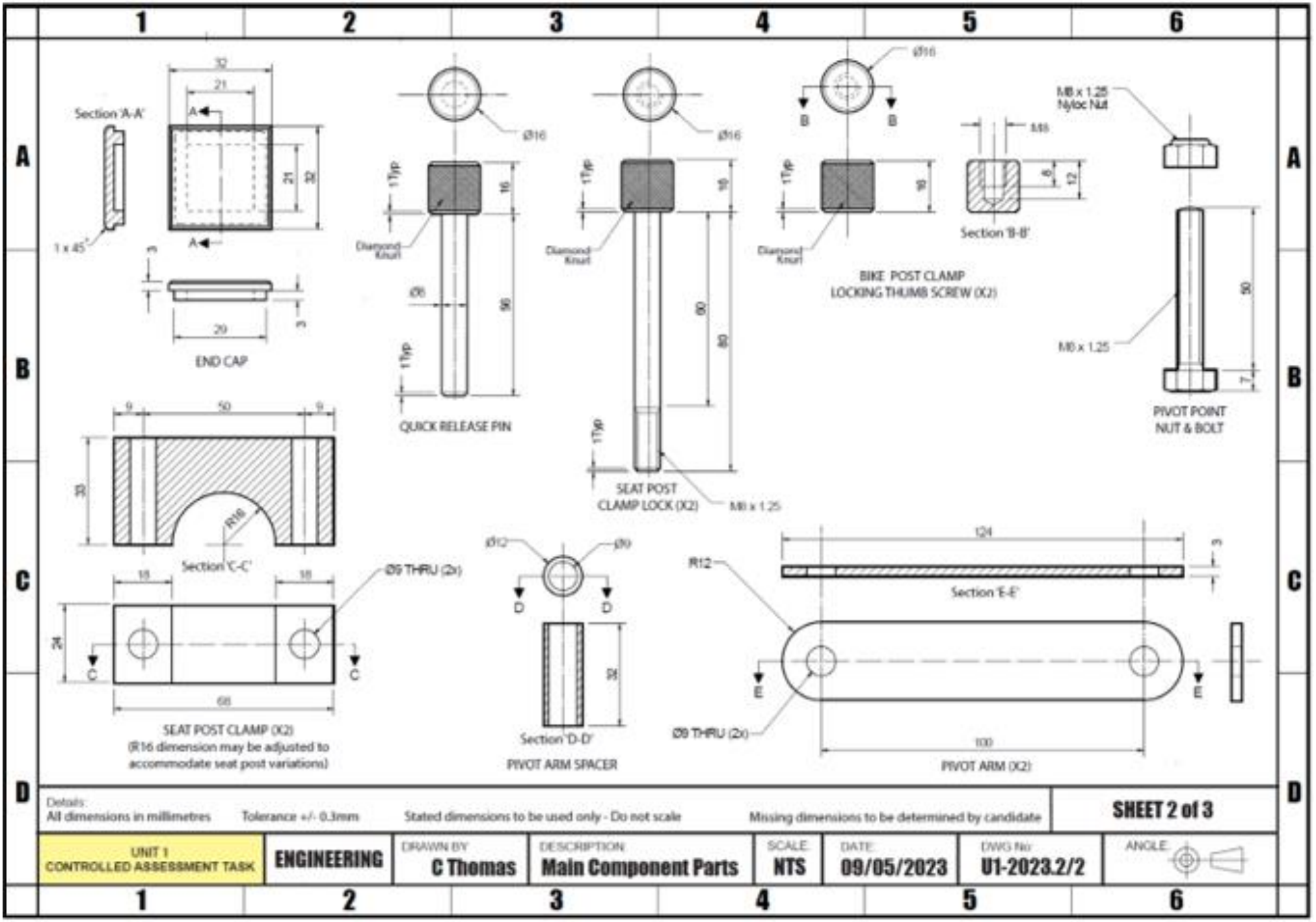


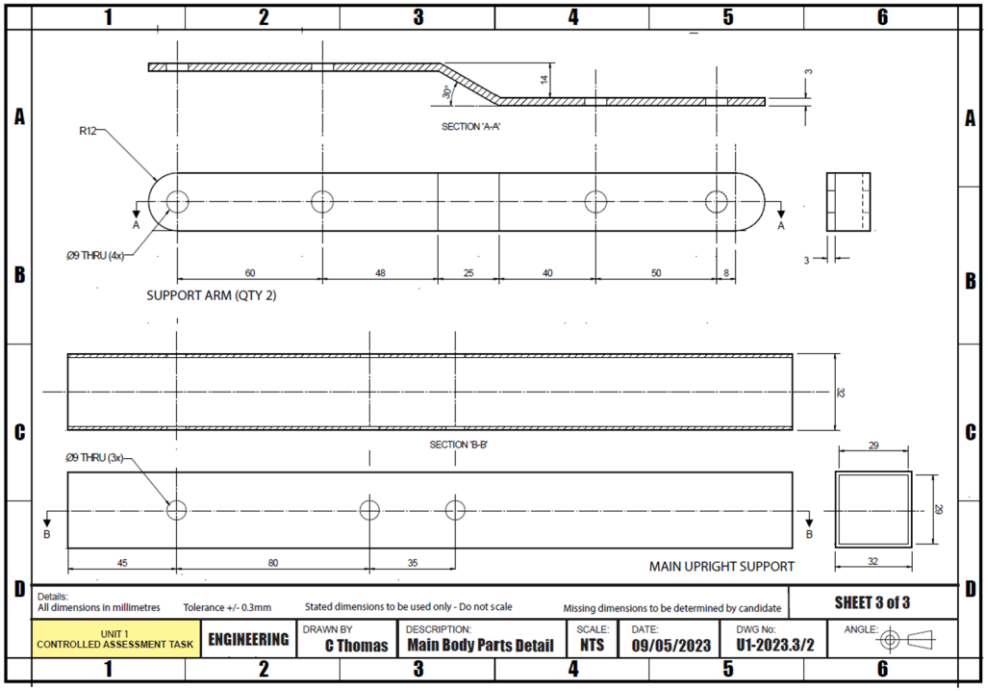
VISUAL 1

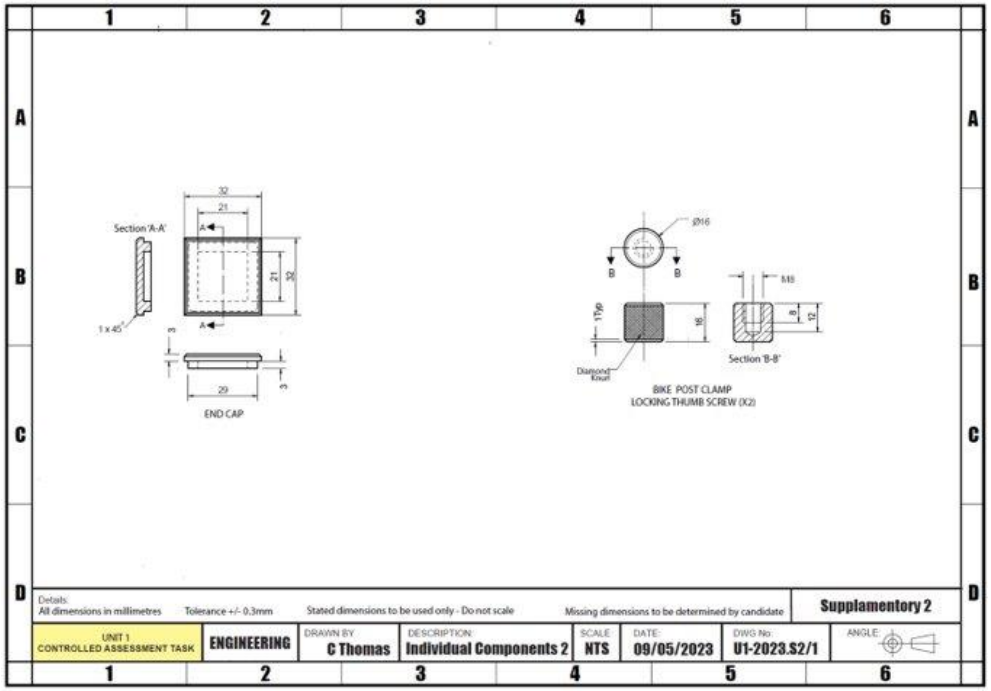


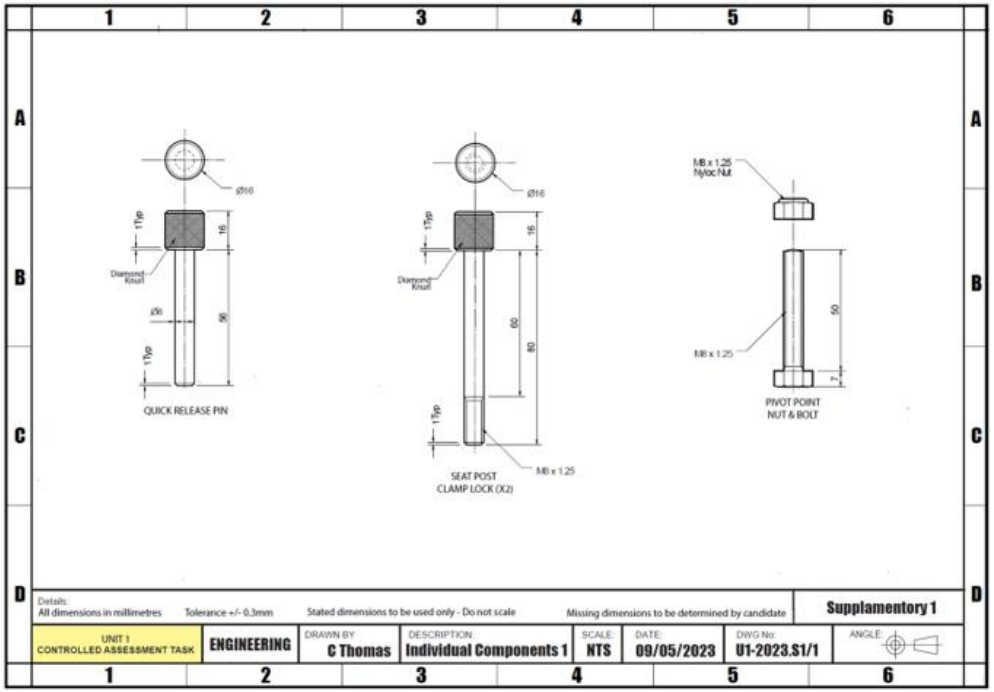
VISUAL 2

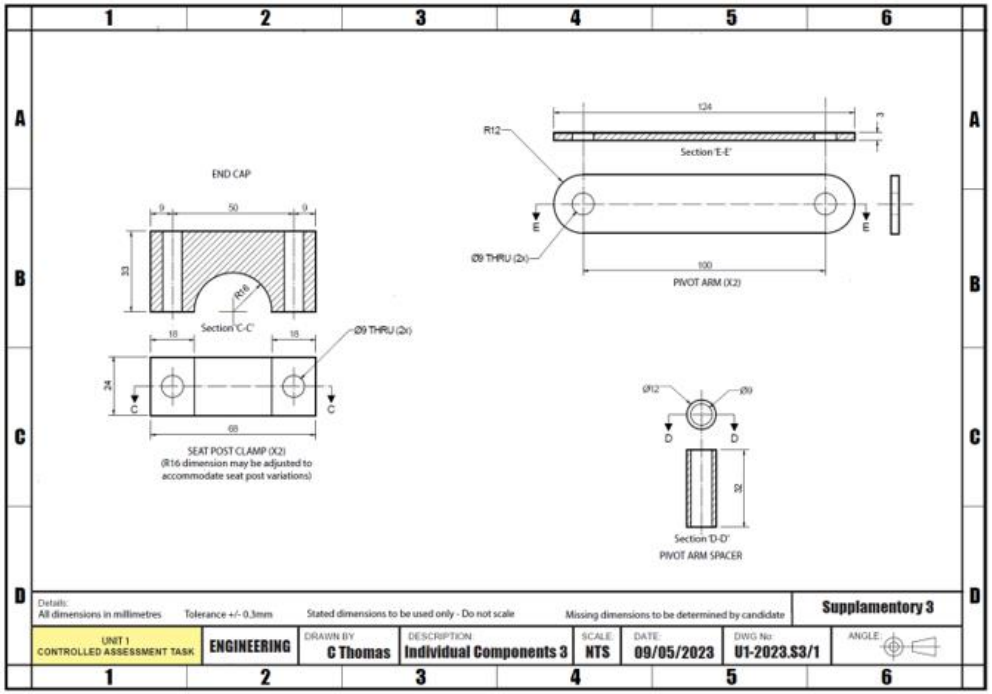
UNIT 1 CONTROLLED ASSESSMENT TASK	**SHEET 1 of 3**
DRAWN BY **C Thomas**	**ENGINEERING**
SCALE: **NTS**	DESCRIPTION: **Component Parts Visual**
DATE: **09/05/2023**	DWG No: **U1-2023.1/2**


Section 'A-A'
32
21
A
21
32
1 x 45°
3
29
3
END CAP
Ø16
1Typ
16
Diamond Knurl
Ø8
96
1Typ
QUICK RELEASE PIN
Ø16
1Typ
10
Diamond Knurl
60
80
1Typ
SEAT POST CLAMP LOCK (X2)
M8 x 1.25
Ø16
B
B
1Typ
10
Diamond Knurl
BIKE POST CLAMP LOCKING THUMB SCREW (X2)
M8
Section 'B-B'
6
12
M8 x 1.25 Nylock Nut
M8 x 1.25
90
7
PIVOT POINT NUT & BOLT
9
50
9
30
R16
Section 'C-C'
18
18
Ø9 THRU (2x)
24
C
C
68
SEAT POST CLAMP (X2)
(R16 dimension may be adjusted to accommodate seat post variations)
Ø12
Ø9
D
D
38
Section 'D-D'
PIVOT ARM SPACER
124
3
R12
Section 'E-E'
E
E
Ø9 THRU (2x)
100
PIVOT ARM (X2)
Details:
All dimensions in millimetres
Tolerance +/- 0.3mm
Stated dimensions to be used only - Do not scale
Missing dimensions to be determined by candidate
SHEET 2 of 3
UNIT 1
CONTROLLED ASSESSMENT TASK
ENGINEERING
DRAWN BY
C Thomas
DESCRIPTION
Main Component Parts
SCALE
NTS
DATE
09/05/2023
DWG No
U1-2023.2/2
ANGLE


SECTION 'A-A'
R12
Ø9 THRU (4x)
SUPPORT ARM (QTY 2)
SECTION 'B-B'
Ø9 THRU (3x)
MAIN UPRIGHT SUPPORT
Details:
All dimensions in millimetres
Tolerance +/- 0.3mm
Stated dimensions to be used only - Do not scale
Missing dimensions to be determined by candidate
SHEET 3 of 3
UNIT 1
CONTROLLED ASSESSMENT TASK
ENGINEERING
DRAWN BY
C Thomas
DESCRIPTION:
Main Body Parts Detail
SCALE:
NTS
DATE:
09/05/2023
DWG No:
U1-2023.3/2
ANGLE:


Section 'A-A'
1 x 45°
END CAP
BIKE POST CLAMP
LOCKING THUMB SCREW (X2)
Section 'B-B'
Diamond Knurl
Details:
All dimensions in millimetres
Tolerance +/- 0.3mm
Stated dimensions to be used only - Do not scale
Missing dimensions to be determined by candidate
Supplamentory 2
UNIT 1
CONTROLLED ASSESSMENT TASK
ENGINEERING
DRAWN BY
C Thomas
DESCRIPTION:
Individual Components 2
SCALE:
NTS
DATE:
09/05/2023
DWG No:
U1-2023.S2/1
ANGLE:


QUICK RELEASE PIN
SEAT POST
CLAMP LOCK (X2)
M8 x 1.25
Nyloc Nut
PIVOT POINT
NUT & BOLT
Details:
All dimensions in millimetres
Tolerance +/- 0.3mm
Stated dimensions to be used only - Do not scale
Missing dimensions to be determined by candidate
Supplamentory 1
UNIT 1
CONTROLLED ASSESSMENT TASK
ENGINEERING
DRAWN BY
C Thomas
DESCRIPTION:
Individual Components 1
SCALE:
NTS
DATE:
09/05/2023
DWG No:
U1-2023.S1/1
ANGLE:


END CAP
SEAT POST CLAMP (X2)
(R16 dimension may be adjusted to
accommodate seat post variations)
Section 'E-E'
Ø9 THRU (2x)
PIVOT ARM (X2)
Section 'D-D'
PIVOT ARM SPACER
Details:
All dimensions in millimetres
Tolerance +/- 0.3mm
Stated dimensions to be used only - Do not scale
Missing dimensions to be determined by candidate
Supplamentory 3
UNIT 1
CONTROLLED ASSESSMENT TASK
ENGINEERING
DRAWN BY
C Thomas
DESCRIPTION:
Individual Components 3
SCALE:
NTS
DATE:
09/05/2023
DWG No:
U1-2023.S3/1
ANGLE:

Processes

Marking out is a process where the required shape is marked onto the stock material.
Cutting can occur using a hand tool like a hacksaw, sheers or snips saw or fretsaw, or using machinery such as a metal bandsaw.
Milling uses a milling machine to cult slots in blocks of metals, and to face off edges.
Finishing is applied at the end stage of production. It could include a range of finishes such as polishing, knurling, enamelling, electroplating or anodizing.
Shaping can involve the removal of materials, called wasting, using saws, files or grinding equipment.
Drilling is a process used when a hole is required in a material. Drilling can be done using a hand drill, or drill press/pillar drill.
Turning uses a machine called a lathe that can be used to turn a piece of metal to create differently shaped round pieces. It can also be used to create threads and to apply different knurled finishes.
Joining metals can be done permanently using welding, brazing, epoxy resin adhesives and soldering. Temporary methods include nuts and bolts, hinges, screws and rivets. Soldering is used to heat join softer metals such as silver in jewellery (silver solder) or to attach electronic components to printed circuit boards.
Forming is a process used to change the shape of the material, for example by bending, compressing or extruding.

Using engineering tools

Files are used to remove material from stock form of metals and plastics. This is known as wastage.
Scribers are used to mark lines for cutting on materials such as metals and plastics.
Centre punch is a tool that is used to create a small depression in material prior to drilling. This helps locate the drill accurately on the material. Tap and die sets are used to created threaded components.
A tap used to thread a hole and a die to thread a bar (i.e. a bolt).
Hacksaws are a framed saw used mainly to cut metal.
An engineer's square is used in marking out material. It is set at 90° and is also used for parallel marking.
Vernier callipers are used to measure a range of sizes such as length of material, depth of holes, internal openings, etc.
Micrometres are highly accurate measuring tools used to measure sizes, i.e. material width/thickness.
Reamers enlarge, smooth, or contour an existing drilled hole in a work piece for a precise fit when installing fasteners or other parts in metalworking tasks.
Shears and snips are used to cut sheet metal. They may be straight or curved depending on the task.

In addition to the examples above, tools can also include items used on items of equipment known as tooling: Knurling tools are used to put a textured grip onto a metal bar using a lathe. A boring bar is used to enlarge a drilled hole to a precise dimension. They are available for a lathe or a milling machine. Parting tools are used on a lathes to form a narrow slot to assist in the removal of a work piece from the stock/waste material to remove.

Yr10 Engineering

Properties of materials

BZP steel is corrosion resistant because it has a coating of zinc, but it does not last forever. It has good tensile strength and can be machined to produce a screw thread. It is easier to work with than some other materials such as stainless steel. It is good to use for the screws, bolt and clamp because they need to be strong and durable.
Stainless steel is corrosion and stain resistant and has good chemical resistance properties. It is not a good electrical conductor, and most type of stainless steel are magnetic. Stainless steel is hard, has good tensile strength and can be also be machined. This makes it good for the screws and bolts that will get covered in mud and rain. Polyurethane 12
Polyurethane is a thermoset polymer and has good heat resistance. It is stiff and does not expand when heated. It is an electrical insulator and does not react with metals.
Nylon is a thermoforming polymer that has a high melting point. It can be self-lubricating and has very good wear resistance. It can be cut easily using stamping so washers can be made easily.
Aluminium is malleable and can be machined easily. It is also quite strong and light compared to steel. It is durable and does not rust. It can also be cast which makes it good for the calliper parts because they are complicated shapes. It will also keep the bike light.
Ferrous Metals - Contain Iron, eg stainless steel
Non Ferrous metals - No Iron, such as bronze or brass or a mixture of metal(alloy) often mixed to make it stronger.
Thermosetting polymers - heated, formed once cannot be reformed. Useful where a lot of heat is applied eg. Kettle.
Thermoforming polymers - heated and reformed over and over. Eg Acrylic.
ABS - Acrylonitrile Butadiene Styrene

Terms and meanings

Scale informs the engineer what scale should be used when using the drawing. A scale of 5:1 indicates that the drawings are five times smaller than the original product should be. This allows engineers to take dimensions (sizes) directly off the engineering drawings.
Finishes information gives details on what the finish of the part or product would look like, for example, a knurled finish on a tightening clamp.
Detail views are sometimes used by engineers to explain the details of more complex parts in an engineering drawing.
Title blocks are used to display key sections of information about the drawing, i.e. scale, who made the drawing, the date it was drawn, the drawing number.
Orthographic views are the standard views used to lay out a set of engineering drawings. They must conform to British standards (BS8888) to allow a common format of presenting information to various people such as manufacturers.
Section views show a drawing of a part that may have been cut through to allow the reader to see further details. Isometric views are often used by engineers and designers to produce a three-dimensional representation of the product or part

Casting and Forging

	Description	Examples	Reasons
Sand casting	Molten metal is poured into a mould created in sand. The mould is made by a wooden pattern, and metal is poured through a hole in the sand. The mould is in two parts called a cope and drag, which are separated to remove the completed item.	Man-hole cover Car parts	Dimensional accuracy is not vital. Can be used for large items.
Die casting	Molten metal is forced under high pressure into a mould. The mould is usually made from two parts of hardened tool steel.	Toy cars	Large quantities, which need to be accurate, are produced.
Investment casting	A pattern is made from wax, which is then surrounded by clay or other ceramic materials. Once completed, molten metal is poured into the mould, sometimes with pressure applied.	Compressor wheels	Used for complex shapes with a high degree of accuracy.

	Description	Examples	Reasons
Drop forging	A heated workpiece is held in a fixed die. A hammer or upper die is then dropped, using gravity, on to the workpiece to form it.	Engine cam shaft	High production rate. Used for small to medium-sized shapes. Good dimensional accuracy.
Press forging	Uses a slow squeezing action for forming the heated workpiece.	Aircraft landing gear	Metal penetrates the whole object.
Upset forging	Usually only one end of a bar needs to be shaped. The heated end of the workpiece is gripped in a fixed die and then struck by a moving die with a hammer blow.	Bolt head	Only one end needs shaping.

Manufacturing processes

Cutting processes

Drilling - holes, either all the way through or flat bottomed.
Sawing - mechanical or manual cutting of material
Filing - removing sharp edges or shaping round edges.
Shearing

Shaping processes

Turning - producing a range of shapes and diameters of round bar
Milling - removing material to create slots or parallel lines, grooves, recessess.

Forming processes

Casting - sand casting or die casting in a die (mould).
Forging - drop forging, upset forging, forcing heated metal into shape through shaping machinery.
Extruding - forcing soft polymer through a die.
Moulding - vacuum forming or injection moulding.

Joining and fabrication processes

Fastening - mechanical join between two components eg screws, nuts, bolts.
Bonding - glue and adhesives.
Soldering - melting solder to join electric components to a circuit board.
Brazing - Joining different metals together using heat.

Features of an engineered product

Dimensions - Size

Tolerance - How much bigger or smaller can a product be and still fit/work?

Surface finish - measure in micrometres (µm). How it might look or wear or resistant to corrosion/rust water.

Physical form - 2D 3D flat curved. Is it long joined to something, sharp edges etc.

Properties of materials

Mild steel - Good tensile strength, malleable and ductile.

Stainless steel - Tough and corrosion resistant

Wrought iron - Corrosion resistant and malleable

Aluminum - Soft, malleable, conductor of heat, corrosion resistant.

Titanium - Low density, good level of durability

Copper - Tough, ductile, good conductor of electric.

Polyurethane - Strong and impact resistant.

Acrylic - Stiff Durable and an insulator.

Polypropylene - Strong and resistant to stress and cracking,

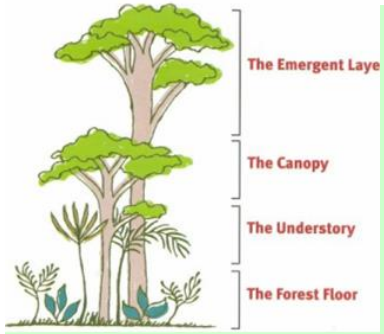
Modern materials

Modern composite materials	Properties of the material	Examples of typical uses	Reasons for use	Improvements on traditional materials
Carbon fibre	Very high strength-to-weight ratio, easy to mould, does not rust	Formula 1 cars, aircraft parts, racing cycles	High strength, corrosion-resistant, high performance material	Much stronger for the same weight of material. Much easier to form by layering up or moulding
Kevlar ®	High tensile strength, chemical resistant, non-flammable	Bullet-proof vests, helmets, guitar strings	Allows body armour to be lighter, therefore user can move more easily	Approximately five times stronger than steel by weight
GRP	Corrosion-resistant, durable, electrical insulator, inexpensive	Boats, garage doors, car body panels	Generally very strong and robust, lightweight, easy to form in complex shapes	More easily formed and stronger than metal for its weight

Ecosystem - Key terms

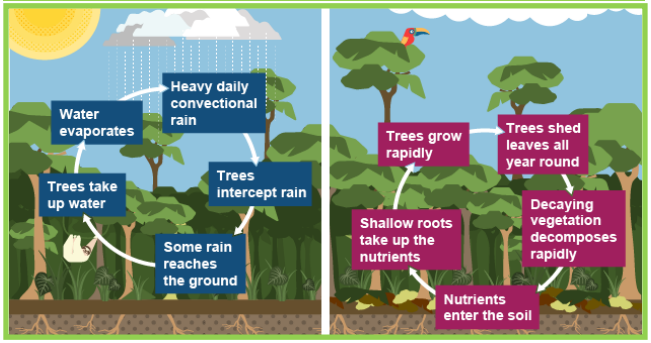
Key term	Definition
Ecosystem	A community of plants and animals that interact with one another and their physical environment.
Abiotic	Relating to non living things.
Biotic	Relating to living things.
Producer	An organism or plant that is able to absorb energy from the sun through photosynthesis.
Primary consumer	Creature that eats plant matter. Also known as a herbivore.
Secondary consumer	Creature that eats other animals. Also known as a carnivore.
Decomposer	An organism that breaks down dead plant and animal matter.
Food chain	The connections between different organisms that rely on one another as their food source.
Food web	A complex hierarchy of plants and animals relying on each other for food.
Biome	A large global ecosystem with flora and fauna adapting to their environment.

Tropical Rainforest - Vegetation

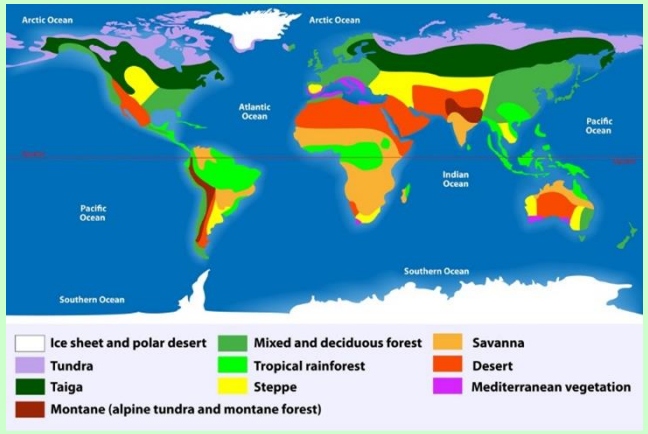


- Competition for light causes trees to grow fast. They are tall and straight. Buttress roots support these tall trees.
- Plants on the forest floor are shade tolerant and able to cope in the darker conditions.
- Epiphytes grow high up on the branches of trees to gain access to the light.
- Lianas wrap themselves around other trees to gain access to light.
- Plants have drip tips.

Water and Nutrient Cycle



Distribution of Biomes



Biome	Key Characteristics
Tropical Rainforests	•Along equator (Asia, Africa / South America). •6% of earth's surface. •25°C – 30°C and over 250 mm rain per month.
Tropical Grasslands (Savanna)	•Between equator and tropics. •20 – 30°C and between 500 - 1500 mm of rain per year. •Wet and dry seasons.
Deserts	•Tropics (Sahara and Australia). •Over 30°C and less than 300 mm per year rain. •20% of land's surface.
Deciduous forests	•Higher latitudes (W Europe, N America, New Zealand). •5 – 20°C and between 500 – 1500 mm rain per year. •4 distinct seasons. •Lose leaves in the winter to cope with the cold.
Coniferous forest (Taiga)	•60°N (Scandinavia / Canada). •Cone bearing evergreen trees. •No sunlight for part of the year.
Tundra	•Above 60°N (Arctic Circle). •Less than 10°C and less than 500mm per year rain. •Cold, icy and dry means 2 month growing season.

Effects of deforestation in Malaysia

Economic development

•Mining, farming and energy lead to jobs •Companies pay taxes to government. •Hydro-electricity provide cheap energy • Minerals like gold are valuable
•Pollution of water sources • Tourist numbers decrease • Medical plants go extinct

Soil erosion

•Land left unprotected from heavy rain leads to landslides and flooding.
•Nutrients are washed away decreasing nutrients in the soil. •Rivers silt up.

Contribution to climate change

•Trees cut down change the water cycle and make it drier. •Rainforests are the lungs of the earth and so when deforested there is more carbon dioxide in the air and less oxygen. •Burning also releases carbon dioxide into the air (Greenhouse effect).

Others

•Loss of biodiversity. •Loss of indigenous tribes). •Tribal people moving to towns and cities and have drugs and alcohol issues. •Loss of indigenous knowledge. •Conflicts between developers and indigenous people.

Causes of deforestation in Malaysia

Commercial farming	Largest exporter of Palm oil. During 1970s, large areas of palm oil were converted to plantations. Owners get tax incentives
Logging	World's largest exporter of tropical wood since 1980s. Clear felling takes place (All trees cut down). Only recently selective logging has happened
Mineral extraction	The removal of mineral resources from the earth. Gold, Bauxite, Oil and gas. Pollutes rivers and air. Trees above the mines and quarries are removed.
Subsistence farming	A type of agriculture producing food and materials for the benefit only of the farmer and his family or community. Small scale, often slash and burn.
Hydro - electricity	Dams have been built and large areas of rainforest destroyed by flooding.
Population pressure	Poor urban people were encouraged to move to the countryside from rapidly growing cities. Between 1956 – 1980s, 15000 hectares of rainforest was felled (cut down) for settlers
Roads	Roads constructed to provide access to new mining areas, settlements and energy projects

Protecting Tropical Rainforests

- Selective logging. Only fell fully grown trees. Mark sustainable trees for sale.
- Conservation & education. WWF (NGO) educate and train conservation workers. Buy threatened areas.
- Ecotourism. Minimises damage to the environment and benefits locals. This creates incentive to protect the forest.
- International agreements. International Tropical Trade Agreement restricts trade in hard woods.
- Debt reduction. Debts have been reduced in return for agreement that rainforests will not be deforested. This is called 'debt-for-nature swapping

The Living World

AQA

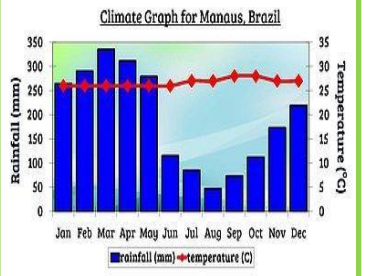
Tropical Rainforest - Animals

- Jaguars have spotted fur. This camouflages them in the dappled shade of the forest floor.
- Parrots have strong, sharp beaks to help them crack open nuts.

- Spider monkeys have a prehensile tail that allows them to cling to branches. Sharp nails allow them to peel bark.
- Poison dart frogs are a bright colour to warn predators away.

Rainforest Climate

Temperatures are high all year (around 28°C).
Rainfall is around 250mm per month.



GEOGRAPHY

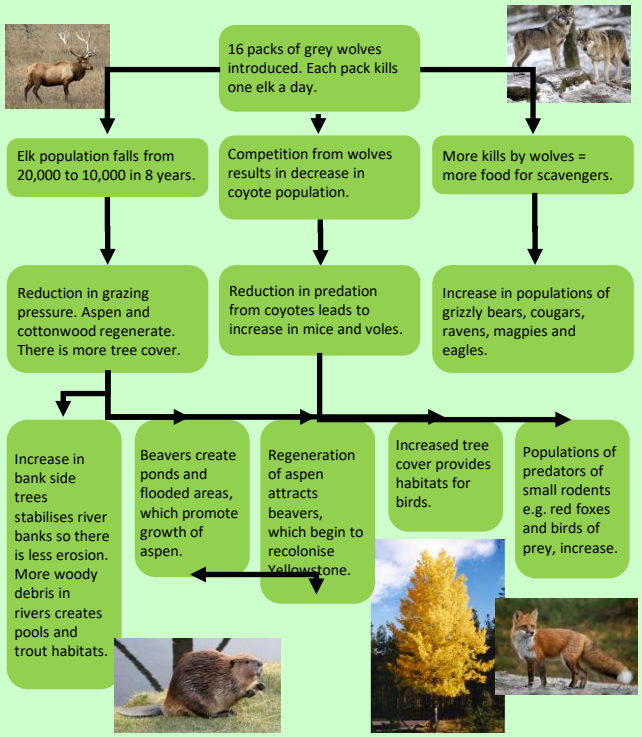
Trophic levels

Trophic Level	Source of Energy	Examples
Producers	Solar energy	Green plants, photosynthetic protists and bacteria
Herbivores	Producers	Grasshoppers, water fleas, antelope, termites
Primary Carnivores	Herbivores	Wolves, spiders, some snakes, warblers
Secondary Carnivores	Primary carnivores	Killer whales, tuna, falcons
Omnivores	Several trophic levels	Humans, rats, opossums, bears, racoons, crabs
Detritivores and Decomposers	Wastes and dead bodies of other organisms	Fungi, many bacteria, earthworms, vultures

At each (trophic) level of the food chain the number of individuals declines. This is because not all individuals in any trophic level are consumed (eaten). This means not all energy is passed up to the next trophic level.

Changes within ecosystems

If any component within an ecosystem is changed it will have a knock on effect on the rest of the ecosystem.
An example of where this happened was in Yellowstone National Park in the USA when they reintroduced wolves in 1995.



Ecosystem - A question of scale

Ecosystems can be any size.
- Local e.g a pond or under a dead log. Also called a habitat.
- Regional e.g. the upland moorland of the Pennines in the north of England.
- Global e.g. tropical rainforest. Also called biomes.

A small scale ecosystem – Haldon Forest

Haldon Forest is a woodland area south west of Exeter, Devon. Haldon Forest consists of different zones or layers from the bottom to the top of the ecosystem:

1. **Forest floor** – a zone of roots, soil and leaf-litter beneath the trees. Here decomposers such as fungi, bacteria, woodlice, and earthworms feed off last year's leaves and return nutrients to the soil in the form of an organic substance called humus.
2. **Shrub layer** of holly and hazel at five metres, overlying a field layer of grasses, brambles, ferns and flowering plants; 34 butterfly species live in the forest and are supported by this layer.
3. **Canopy**. Haldon consists of a large number of deciduous and coniferous tree species including oak, elm, beech and pine.
4. Many mammals (including dormice) and bird consumer species are supported.

Hot deserts

To be defined as a Hot Desert, there must be:
-Less than 250mm of rain a year.
- Diurnal temperatures ranging from 50°C during the day to 0°C at night.

NOT hot desserts

Desert - Challenges

Extreme Temperatures Temperatures are over 40 degrees during the day and drop below freezing at night.

Inaccessibility – The Sahara is huge making travel difficult and expensive.

Water Supply - low rainfall makes water for drinking, washing and agriculture difficult to supply.

Desertification - Causes

Desertification is where land is gradually turned into desert, usually on the edge of a desert. It is caused by overgrazing by cattle or trees being cut down for firewood.
Population growth is a key factor. Climate change will lead to more droughts that kill vegetation and cause the problem to spread.
In the area to the south of the **Sahara**, known as the **Sahel** heavy rainstorms can wash away the exposed soil in a couple of hours.

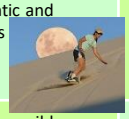
Desert - Opportunities

Mineral resources - mineral resources from the earth can be used by industry or sold for export.

Energy- oil is trapped in huge aquifers deep underground. It is an extremely valuable resource.

Solar energy - with 12 hours of cloudless sunshine every day, deserts are ideal locations for this form of electricity generation.

Tourism – deserts are remote, romantic and exotic locations for tourists.



Farming - only possible where there is access to water through irrigation.

Specific Detail

Thar desert produces gypsum (used in construction) feldspar (used to make ceramics) phosphorite (used in fertiliser) and kaolin (used in paper)

Thar has large oil and coal deposits. It laso makes use of wind and solar energy as forms of renewable energy. The Jaisalmer wind park (2001) is India's largest wind farm.

The Bhaleri solar plant produces energy which can be used in water treatment. This can therefore allow a higher yield from farming, improving income, and also improves peoples' health.

You can see the amazing landscape of the Thar desert along with going on safari on a Camel or could go on a 4x4 adventure. In Dubai, you can also go on dune buggies.

Most farming in the Thar is subsistence farming however with the Gandhi canal being completed in 1958, more crops can be grown improving incomes.

Desertification - Solutions

Irrigation - Water from aquifers used to grow crops / vegetation.

National Parks - Conserve areas at risk, protect wildlife.

Afforestation - Green wall being planted across the Sahel.

Crop rotation - Keeps nutrients in the soil by avoiding monoculture.

Appropriate Technology - Use of suitable crops, magic stones, terraces.

Case Study – The THAR desert – NW India / SE Pakistan

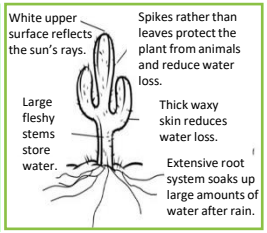
Opportunities •Commercial Farming using water from Gandhi canal. •Mineral extraction e.g. gypsum, feldspar, kaolin. •Energy. The Bhaleri Project produces energy for water treatment. •Tourists from Pakistan visit to have a safari on camels along with a desert festival.

Challenges •Temperatures reach up to 50°C. •Lack of roads meant limited access. •Water is limited and is found in a few rivers (River Luni) •Over-extraction leads to conflict.

Desert plants

High temperatures should lead to rapid growth but this is not possible due to the lack of moisture. Vegetation is sparse and usually confined to water holes.

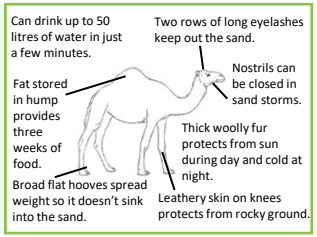
Lack of rainfall is the main limit on plant growth. Plants have thin leaves or spines to reduce water loss and long roots to reach deep underground water. The Cactus is a common desert plant.



Desert Animals

The limited number of producers means the number of consumers is also low.

Animals need to be able to tolerate the range of temperatures in the desert. Many do this by staying underground during the day. They also need to find ways to cope with the limited availability of water. Some gain enough water from their food. Others extract water from air.



GEOGRAPHY

1. Life-Stages

During a person's life they will progress through a number of life stages. Looking at development as a number of stages, and understanding their characteristics, helps health and social care workers to understand how people usually develop at each life stage and recognise developmental problems or delays.

2. The Life Stages

Infancy	0 - 2	Still dependent on parents but growing quickly and developing physical skills
Early Childhood	3 - 8	Becoming increasing independant, improving through progresses and learning how to develop friendships
Adolescence	9 - 18	Experiencing puberty, which brings physical and emotional changes
Early Adulthood	19 - 45	Leaving home, making own choices about career and may start to have a family
Middle Adulthood	46 - 65	Having more time to travel and take up hobbies as children may be leaving the home, beginning the aging progress
Later Adulthood	65+	The aging process continues, which may affect memory and mobility

3. Growth and Development

Growth	Development
Describes increased body size such as height and weigh t Growth is not smooth and individuals have rapid periods of growth during childhood and adolescence	Involves gaining new skills, and abilities such as riding a bike. Development takes place in four areas, Physical, Intellectual, Emotional and Social Development continues throughout life, in early stages development is at a fast rate, however slows down when we reach later adulthood

4. Areas of Development

Although when we discuss a specific area of development changing, it is important to remember that these four areas are make up the whole person. So when one area develops, it will impact another. Example: Without good communication skills (intellectual development), it is difficult to build relationships (social development)

P. Physical	I. Intellectual
Describes growth patterns and changes in the mobility of the large and small muscles in the body that happen throughout life. Example: An infant can begin to walk around 13 months and can pick up small objects. By 3 years, they can pedal and draw shapes.	Describes how people develop their thinking skills, memory and language. Example: Being able to learn and, remember recall information, such as a maths equation.
E. Emotional	**S. Social**
Describes how people develop their identify and cope with feelings. Example: Developing confidence to try new things such as dressing a certain way. It is also about being able to cope with change and deal with new situations.	Describes how people develop friendships and relationships. Example: Being able to communication, build a friendship and spend time with people you have things in common with.

5. Types of Physical Development

Fine Motor Skill	Gross Motor Skill
The skills acquired (needed) to control and coordinate small muscles, such as fingers, hands and toes to complete small movements such as using a knife and fork or picking up lego	The skills acquired (needed) to control and coordinate large muscles - such as arms, torso and legs to complete larger movements such as running or swimming.

6. Early Stages of Development

Top to Toe

Development starts from the head down. Infants start by gaining control of their head before their back muscles and legs

Inner to Outer

Control starts from the body and moves out to the limbs, toes and fingers. Infants can control movements in their whole arm to reach out before they can use their finger muscles to hold an object

Same Pattern at Different Rates

All infants and children pass through the same stages but they may do so at different ages.

For example: some infants may walk at 11 months, though others might not walk until they are 14 months.

7. Intellectual Development

Creative Thinking/Abstract	Memory/Recall
Involves our imagination and ability to think about and imagine things that have not been seen.	Involves storing information, connecting information to what we already know and recalling information to use at a later date.
Language Development	**Problem Solving**
Involves being able to think through and express ideas.	Involves using the brain to use logic to think through problems, come up with new ideas and predict what might happen.

8. Stages of Play

Solitary Play
Birth to 2, they play alone but like to have parents close by

Parallel Play
From 2 - 3, children enjoy playing next to other children but are absorbed in their own game

Cooperative Play
From 3 years upwards, children start to play with other children, they have now developed social skills so they can share and talk to each other

HEALTH & SOCIAL CARE

9. Physical Development

Life Stage	Expected Physical Changes
Infancy	Walk around 13 months By 18 months they can feed self with a spoon
Early Childhood	Ride a two wheeled bike around 6 - 7 years Can make detailed models using construction blacks at the age of 5 years
Adolescence	Rapid growth spurts Go through puberty. Females - hips/breast enlarge, start menstrual cycle. Males - voice lowers, increase muscle mass and testes produce sperm
Early Adulthood	Peak of physical fitness and height Women are most fertile End of life stage - weight gain, grey hair and strength loss
Middle Adulthood	Hair loss, grey hair and weight gain Women start the menopause (stop producing eggs so are no longer able to reproduce)
Later Adulthood	Mobility (use of gross motor skills) will decline as muscles become weaker and joints become stiffer Dexterity (fine motor skills) will also decline, hand to complete small tasks

10. Intellectual Development

Life Stage	Expected Physical Changes
Infancy	Learn through their senses, touch, sight, taste and hearing Experiences and interactions with adults help infants to build connections in their brain so that by the time they are 12 months old their brain has doubled in size
Early Childhood	At 3 - 4 years, they are more inquisitive and ask many questions They can sort through simple problems like sorting objects into shapes and colours By 5 - 6 years their memory is well developed which helps them talk about the past
Adolescence	Can use abstract thought now and can also think locally about an issue or problem May find it difficult to understand the consequences of their actions Are able to understand situations from another person's point of view
Early Adulthood and Middle Adulthood	People will have gained great amounts of knowledge by this time They can apply this knowledge to their personal or working life They use their knowledge and understanding to develop new ways of thinking
Later Adulthood	Continue to learn, often by taking up new hobbie They retain their level of intelligence, however speed of thinking will decline Decline in memory

11. Emotional Development

Life Stage	Expected Physical Changes
Infancy	Attachments are formed with their significant caregiver who makes them feel safe and loved. This will impact their ability to deal with their emotions later in life By the age of 6 months they may cry when given to another person
Early Childhood	By the age of 3 years, they can easily cope with their feelings Start to develop their self-image Giving them attention and showing interest can help boost their self-esteem
Adolescence	Still dependant on their parents but enjoying more freedom May feel insecure due to puberty and press from exams May have low self-esteem due to the pressures of peers and social media
Early Adulthood and Middle Adulthood	May feel more secure due to relationships, their job or their income May have a higher self-esteem due to their abilities or their status in work or in a relationship
Later Adulthood	They may no longer be working and family may have moved out, so they may feel that they are no longer needed, this can have a negative impact on self esteem Low self-image due to the physical changes which happen during this age

12. Social Development

Life Stage	Expected Physical Changes
Infancy	From birth to 2 years, infants are still very dependant on their relationship with their parents. Play consists of solitary play
Early Childhood	By the age of 3 years, close friendships start to be developed They will develop friendships by the age of 4 years old When they attend nursery/primary school, they will develop more formal relationships
Adolescence	Create many informal and formal relationships Peers can influence the development of friendships which may impact certain behaviours
Early Adulthood	Are independant and makes their own decisions about relationships May create a family of their own and developing emotional/social ties with partner and children
Middle Adulthood	Individual are more likely to maintain family relationships Social circle maybe expanded due to travel and hobbies
Later Adulthood	Social life can change because they experience death of a partner or friends May also find it difficult to go out and meet up with friends and family

13. Category of Factors	Factors that are included
Physical Factors	➔ Genetic Inheritance ➔ Disease and Illness ➔ Lifestyle Choices (diet, exercises, alcohol, drugs and smoking) ➔ Appearance
Social and Cultural Factors	➔ Community involvement ➔ Gender roles ➔ Education ➔ Personal relationships ➔ Social Isolation ➔ Role Models
Economic Factors	➔ Income/Wealth ➔ Material possessions

14. Impacts of Genetic Disorders	
Physical	A person's physical build can affect physical abilities. Inherited diseases may affect strength and stamina needed to take part in exercise
Intellectual	Some genetic inherited diseases may result in missed schooling, or have a direct impact on learning
Emotional	Physical appearance affects how individuals see themselves (self-image), and how others respond to them impacts on their confidence and wellbeing
Social	Physical characteristics or disease may affect opportunities or confidence in building relationships and becoming independent
Explain how a genetic condition could impact a child's intellectual development	*Having a genetic condition such as cystic fibrosis may mean that you have to **often miss school due to many routine appointments or surgical procedures**. By **not attending school and learning new skills and knowledge** will have a significant negative impact on their intellectual development.*

15. Impacts of Disease and Illness	
Physical	May affect the rate of growth in infancy/childhood. May impact the process of puberty. In later life, illness may cause tiredness and/or mobility, this can make it difficult to take part in physical activity.
Intellectual	Students may miss school. Memory and concentration may be affected, which impacts on decision making.
Emotional	May cause worry and stress. Individuals may develop negative self-esteem. Can result in a loss of independence. May result in isolation in older adults.
Social	It can restrict opportunities to; socialise with others and build new relationships
Explain how an illness could impact an individual's physical health and development	*Majority of illnesses can make us feel tired and week due to the body working work to fight the illness. However this will limit the amount of physical activity we are able to participate in, meaning we will have a negative impact on our overall fitness level (physical development).*

16. Impacts of Lifestyles Choices		
Diet	➔ A healthy diet leads to: ➔ Healthy hair, skins, nails and teeth ➔ Positive self-image ➔ Energy and stamina ➔ Good health	➔ An unhealthy diet leads to: ➔ Being overweight or underweight ➔ A lack of energy ➔ Ill health ➔ Negative self image

Evaluate how diet could impact an individual's emotional wellbeing (4 marks) **Evaluate means you must look at both the positive and the negative**	*Firstly, if you eat healthy (eating the right amount of calories and nutrients), you are more likely to be a sensible weight. Being at a healthy weight will have a positive impact on your self-image as you will be confident having the correct weight for your age, height and activity level. However if you consume a poor diet, this may lead to negative emotional wellbeing. Eating too much sugar causes a sugar spike and then a sugar dip which leaves an individual low of energy which then influences the individuals mood because they are tired and irritable.*

16 continued. Impacts of Lifestyles Choices

Exercise	➔ Helps children develop their muscles, balance and gain coordination ➔ Regular exercise helps to maintain dexterity (fine motor skills) and mobility ➔ Helps regulate weight or help with weight loss ➔ Produces the happy hormone

Explain how exercise can have a positive impact an in individuals weight (physical development)
To lose access weight, the body need to burn energy/calories. When we move, we are burning calories and this will have a positive impact on an individual weight if they are overweight.

Alcohol	➔ Drinking too much: ➔ Weight gain ➔ Making poor decisions ➔ Liver/kidney damage ➔ Break down of relationships/families	➔ Drinking limited/good quality: ➔ Relieve stress ➔ Helps social interaction ➔ Can have benefits towards lowering the risk of stroke and heart disease
Illegal Drugs	➔ Illegal drugs can only have a negative affect on: ➔ Memory and decision making ➔ May lower self- esteem ➔ May affect relationships ➔ Could cause infertility ➔ However the correct use of prescription drugs is important for maintaining health and development for those with health conditions.	
Smoking	➔ Respiratory problems for the smoker ➔ Respiratory problems for others in the surrounding areas (passive smoking) ➔ Lung and heart disease ➔ If pregnant women choose to smoke, this could affect the growth of the unborn child.	

Explain how smoking can have a negative impact on your social development
By law you have to smoke outside, so when you are gathered with your friends at a party or an an organised event, you will have to leave the social environment to smoke outside. This could have a negative impact on relationships as it may seem that smoking is more important than spending time together.

17. Impacts of Social and Cultural Factors

Community Involvement	Communities are extremely important for people to meet and interact. They share similar interests and common values. Communities can be built around different things, such as living in a local area, belonging to a religion or training/playing in a specific sport. Being part of a community can impact you positively by: ➔ Having a sense of belonging (emotional development) ➔ Building and maintaining relationships (social development) However, individuals who are not part of a community may be impacted negatively by the following: ➔ Feelings of isolation ➔ Difficulties in building relationships ➔ May chose negative lifestyle choices such as drinking/drugs	
Culture or Religion	**Positive Impacts:** ➔ Feeling safe and secure from sharing sharing values and beliefs as others ➔ Good self-image through feeling accepted into a group	**Negative Impacts:** ➔ Could be discriminated by others who do not understand certain religions or cultures ➔ Feeling excluded from certain activities hosted by their peers, due to religion/culture traditions such as Muslims do not drink alcohol due to their Islamic faith
Education	**Positive Impacts:** ➔ Keeps you physically fit due to compulsory PE lessons ➔ Learn new knowledge and skills through your lessons ➔ Build friendships and relationships with your peers and teachers	**Negative Impacts:** ➔ Bullied for physical or personality attributes ➔ Emotional stress from pressures of assessments and exams ➔ Large classes may distract your learning in certain subjects

Evaluate how education experiences could impact your future self (4 marks)
If you had a positive experience in school which resulted you gaining qualifications, this will have a positive impact on future employment. Most jobs require you to have qualifications, so this will increase your chances of getting employment.
However in school you may be been bullied and this could have a future impact on your emotional wellbeing. You may suffer with anxiety, depression or low self-esteem. This could have negative impacts in a variety of different areas of your life, such as building relationships or being successful in job interviews.

18. Impacts of Economic Factors

- Income is simply the money which is bought into your household
- So this income could be from a variety of sources, such as wages from your job, benefits, inheritance or money from profit of a business or shares
- Income is used to pay for things within the house such as mortgage/rent, electric/gas bills, TV/licence, internet, food,etc
- Income is also used to pay for material possessions such as car, phone, clothes, make up etc
- Income also allows you to live a certain lifestyle, it can pay for gym memberships, or social events with friends, holidays, or music concerts
- Having a good income which allows the individual to provide for themself/family, can give a feeling on contentment and security
- Being able to pay for everything which an individual needs to be healthy, can reduce the risk of illnesses
- However individuals on low income can experience high levels of stress, as they struggle to pay for everything
- They may also feel guilty and have a low self-esteem due to being unable to provide for their family
- Many older people rely on their state pension (which can be quite low), so this may lead to cutting on on fuel use (heating/water), cutting down on food shopping or traveling and social activities

Material Possessions	Material possessions is sometimes referred to items we have but are not necessarily needed for our basic growth and development. A car would be considered as a material possession as we don't NEED a car, as we could walk or use public transport, however some people have a good income and can afford this luxury. There are very many positives to owning material possessions, however it has been argued that they can also have many negatives. Such as a mobile phone. Yes we can use it to keep in contact with friends and family and we can even use it to learning new knowledge from the internet. However, the subject of having a mobile phone, may lead to bullying if someone doesn't have the newest version or even have a phone at all. It can also be the gateway for online bullying.

Examples of Material Possessions	➔ Car/Motorbike ➔ Fashionable clothes/shoes/handbags/wallets ➔ Washing machine/Tumble Dryer/Dishwasher ➔ TV/DVD Players ➔ Game Consoles ➔ Computer/Laptops/Ipad/Tablets/Mobile Phones ➔ Internet	➔ Jewellery/Watches ➔ HairDryer/Straighteners ➔ Hygiene products/Deodorant/Hair Gel/Shampoo/Conditioner ➔ Books/Magazine Subscriptions ➔ Musical Instruments ➔ Sports/Fitness Equipment ➔ Camera/Printers
Income	**High Income means you could have the following:** ➔ Large/warm/safe house ➔ Holidays ➔ Technically such as mobile phones, laptops ➔ Car ➔ Clothes and shoes ➔ Opportunities to visit places ➔ Options to eat out in restaurants/take outs ➔ Gym memberships ➔ Buy healthier/more expensive foods ➔ Access to more health care facilities	**Low income could mean you struggle with the following:** ➔ Paying household bills ➔ Need for public transport ➔ Smaller/poor conditioned house ➔ Limited social experiences ➔ Isolation from friends ➔ Higher levels of anxiety/worry/stress ➔ Buying cheaper foods which are less nutritious ➔ Less healthy lifestyle choices such as smoking, drinking ➔ Limit certain facilities such as phone contracts or internet

Explain how having a higher income could impact the children in the household's development (4 marks)

Having a higher income allows for the parents to supply their children with education resources such as books, revision guides and even additional tutoring. This will all the child to have all the extra resources needed to progress in their learning. Also by having a higher impact, the parents can afford for mobile phones and paying for social events such as birthday parties, cinema or clothes shopping. This could have a positive impact on the child's social development as they are able to keep in contact with their friends, or gather socially to interact and have fun (maintaining relationship).

19. Education		
Area of Development	**Positive Impacts**	**Negative Impacts**
Physical	Increase fitness through PE lessons	Physically be injured during high risk subjects such as enginergering, PE or drama
	Development of specific fine motor skills through handwriting, typing, sewing, chopping etc	
	Better cardiovascular system due to walking to and from school	Can cause you to feel physically tired due to the time spent in school
Intellectual	Learn new information from studying GCSE options	Leaning too much can cause you to lack concentration in certain subjects
	Learn how to problem solve in subjects such as maths which can be applied in everyday life	Lack of enjoyment or engagement in a subject may impact of learning new information
	Learn to think abstractly in subjects such as art or dance which can help with imagination and creativity	
Emotional	Feel safe and secure	Could develop a low confidence due to failing or not achieving compared to peers
	Gain reassurance from teachers on your abilities	Experience high levels of stress due to the demands of exams
	Have emotional support and guidance from pastoral/teachers	Feelings of low self-esteem due to bullying
Social	Create friendships with people with similar interests	Peer pressure from friends may lead to negative behaviours
	Learn how to interact with different types of people and how to adjust communication skills	May become socially isolated due to a friendship breakdown
	Learn how to behave/respect authority	

20. Income		
Area of Development	**Positive Impacts**	**Negative Impacts**
Physical	Afford good nutritious foods to minimise risk of illness	Having poor income may mean you have to eat a lot of processed foods which could have an impact on weight
	Can pay for a gym membership to keep you health	Unable to pay for heating/water/gas which could increase your chances of getting poorly especially respiratory conditions
Intellectual	Can afford resources to help with school such as textbooks, computer and the internet	Unable to afford to go in university to gain additional qualifications
	Pay for holidays to see and experience new cultures	Having a low income may mean children are disadvantaged in school as they do not have the resources needed to excel in their learning
Emotional	Sense of pride and achievement in living independently	May feel like a failure being unable to provide for yourself or family
	Feel safe and secure knowing that you have a house to live in and that you can provide for your family	Experience high levels of stress due to the demands of paying bills which can lead to mental health conditions such as depression
Social	Can afford to participate in social events and gatherings	Lack of friends due to being unable to meet the expectations of peers due to clothes, make up or branded items
	Have a house to host social gatherings or money to pay for petrol or transport to meet friends and family	Unable to travel to see friends or pay for outings such as going to the cinema

The People's Health 1250 - 1500

KnowIT

Box A: Key words and definitions

1. Feudal System – The social and governing system
2. Epidemic – Spreading disease
3. Miasma – Bad smells which were believed to cause disease
4. Catholic – A type of Christianity
5. Midden – Pile of rubbish
6. Conduits – Water fountain
7. Monastery/Abbey – A Religious Building
8. Humour – Liquid in the body
9. Privy – Old style loo – no, it doesn't flush
10. Purging – making yourself sick or poo

Box B: Life in Medieval England (1250 – 1500)

1. 90% of the population lived in the countryside
2. There were only a few towns e.g. London, but they were small.
3. Land was divided into estates called Manors, each was controlled by a Lord. Peasants lived on the land.
4. Political power was linked to land ownership
5. The Church owned lots of land and advised the king
6. England was divided into local communities called Parishes. Each Parish had a church and a priest. Locals paid local taxes called tithes.
7. Few people could read or write, many turned to the church to help them understand disease.

Box C: Medieval Living Conditions - Villages (1250 – 1500)

1. There was little spare food and a poor harvest would mean disaster and famine like 1315 - 16
2. Fresh meat was hard to get
3. Peasants in the countryside ate a lot of fresh veg, berries, honey and often kept cows to make dairy products
4. Bad weather led to a poisonous fungus growing on wheat which led to illness – Ergotism.
5. Houses only had 1 or 2 rooms and were made of sticks and clay.
6. There were open fires in homes, this made them smoky.
7. Houses didn't have windows, just small openings with shutters
8. People didn't have running water or toilets.
9. Water came from streams..
10. Waste was thrown into the street, river, or midden
11. They went to the loo over a pit called a 'cess pit'
12. Animals were put into houses at night which caused illness

Box D: Medieval Beliefs about disease

1. There were serious epidemics of flu and small pox
2. Life expectancy was low
3. People believed in miasma
4. People believed in the four humours- blood, yellow bile, black bile and phlegm. An idea popularised by Galen in the Ancient times

Box E The Black Death (1250 – 1500)

1. Bubonic Plague spread by bites of fleas from rats. Led to a temperature and buboes
2. Pneumonic Plague – airborne – spread by coughs and sneezes. Attacked the lungs and made the victim cough up blood.
3. First arrived in 1348
4. People didn't know what caused it.
5. Some people tried to balance their humours by bleeding or purging
6. Some people turned to religion, some became flagellants
7. Some people blamed the planets
8. Some people turned to herbal remedies like camomile lotion.
9. Some people blamed miasma so carried sweet smelling herbs
10. Some people went to church and went on a pilgrimage
11. The diseased killed between 1/3 – 2/3 of England's population
12. Priests were running away and not giving 'last rites'
13. The sick in towns were sometimes kicked out of their homes
14. The rich could move to the countryside
15. In April 1349 King Edward II wrote a letter to the Mayor of London with instructions to clean up.

Box F The importance of the Church(1250 – 1500)

1. The church had the best hygiene as it needed clean water for church services
2. It was common for Abbey's to have infirmaries, like Fountains Abbey in Yorkshire. The was the closest thing medieval people had to a hospital
3. Monasteries often had piped running water
4. The Monasteries would care for the sick with food and water, but they would not treat them as their believed it was God's plan for the sick to be ill.

Box G The importance of the Church(1250 – 1500)

1301 – King Edward 1 ordered authorities to clear the streets in York

1329 – in Winchester the butchers guild appointed people to check the quality of meat being sold

1300s – Bristol moved dungheaps, lepers and prostitutes out of the town centre.

Box H: Medieval Living Conditions – Towns (1250 – 1500)

1. Peasants would take food to towns in the same cart they used to empty their midden
2. Live animals walked the streets of towns and were butchered in the streets.
3. The streets were often just mud, some were cobbled
4. Markets were central to life in towns.
5. Towns had conduits
6. Water sellers in towns collected the water and sold it door to door.
7. There were no laws on selling rancid meat
8. At the end of market days the streets were full of waste. From 1293 London paid rakers to clear the streets.
9. By 1500 some towns paid carters to remove waste from butchers and fishmongers
10. Town houses were tall and close together.
11. They had thatched roofs with mice and insects in
12. Homeowners were expected to clear waste and gutters, but people rarely did.
13. Some people had brick lined cess pits
14. Some had no lining and leaked into neighbour's cellars!
15. Gongfermers cleared the cess pits.

Box I: Key words and definitions

1. Reformation – religious change under Henry VIII in the 1500s
2. Jake – a hole over a river which was like a loo
3. Animalcules – What Leeuwenhoek called microbes. He didn't know germs could make you sick.
4. Isolation – Keeping people away from the main population
5. New World – Places like America
6. Transportation – A form of enslavement, often led to be taken to Australia to work in a prison colony.
7. Gin Distiller – Someone who makes gin
8. Syphilis – Sexually transmitted infection, common with prostitutes in the Early Modern.

Box L: Life in Towns

1. Streets were crowded and animals were in the street still.
2. Streets were mostly mud. Even the cobbled ones were covered in dung.
3. They were Smokey due to the use of coal.
4. Houses started to be replaced with ones built of brick.

Box M: Water and Waste(1500 – 1750)

1. If you lived near a river you could use it for a bath
2. If you were rich you might have an tub inside, but this probably didn't have taps, just buckets to fill it.
3. Soap which was made from leftover animal fat could be used to wash clothes by hand.
4. The rich had soap made from olive oil.
5. People didn't want to bath as they thought the water would get into their skin and make them ill.
6. Some people paid for piped water into their homes.
7. Hugh Middleton built a 'river' to take water to London in 1609.
8. Some people collected water from conduits
9. Some people bought water from water sellers.
10. Scavengers collected waste and sold what they could.
11. 1596 John Harrington invented the flushing toilet. Few hand them.
12. People used jakes
13. Most people used privys over cess pits

Box J: Life in Early Modern England(1500 – 1750)

1. Few people died from starvation
2. The population was increasing, in 1550 it was 3 million. By 1750 it was 6 million.
3. The main work was in the wool industry, spinning wool.
4. People started to use coal and Thomas Newcomen invented the steam engine in 1712 which led to mining
5. There was more trading with foreign lands for good like sugar and tobacco
6. Towns were growing, and 20% of people lived in them
7. Monasteries were no offering health care because of the reformation
8. Robert Hooke developed a high power microscope
9. 1683 – Leeuwenhoek sees 'animalcules' (germs) in microscope
10. Printing press spread new ideas and it was quicker to get books.

The People's Health 1500 - 1750

KnowIT

Box N: Plague

1. The plague was tarrying due to its frequency, there was an outbreak about once every 20years
2. The symptoms were scary e.g. blisters which went black and gangrenous, a temperature of 40 degrees, vomiting, terrible pain, swollen lymph nodes, buboes, black patches under the skin, organ failure.
3. Only 1 in 5 people survived. Death came in 5 days.
4. Nobody knew what caused it. They believed in the same causes as they had in 1348.
5. Some also thought it was cats and dogs, so they killed them.
6. The plague came back to England in 1665.

Box K: Early Modern England Food and Famine- Villages (1500 – 1750)

1. Little change in food since the medieval times
2. The rich ate a lot of meat e.g. rabbit, beef and pigeon
3. The rich ate white bread, salad leaves , vegetables and fruit
4. New foods were brought from America e.g. Chillis, pumpkins and tomatoes as well as chocolate and tea.
5. The diet of the poor was mostly bread, vegetables, eggs, cheese and pottage.

Box M: Responses to the Plague

1. 1558 – Henry VIII used isolation. Infected houses in London should be identified for 40 days. If anyone left the house they should carry a white stick so they could be avoided.
2. 1550s York – watchmen employed to stop the movement of the infected, and searchers were employed to collect and bury the dead.
3. 1578 – Elizabeth I printed the Plague orders which included rules that towns would appoint searchers and report on the development of the disease, that alderman (councillors) would collect money to support the sick, that prayers would be said for the ill, barrels of tar would be burnt to stop miasma, funerals would take place at dusk, infected houses would be shut off for 6 weeks with the victims inside.
4. 1604 – Parliament passed a law to enforce the Plague orders. It introduced harsh punishments for those breaking the Plague Orders.

Box O: GIN

1. Known ad the 'demon drink'
2. In 1689 Gin was very cheap and the poor were drinking it a lot!
3. In 1720 shops advertised 'get drunk for a penny'
4. Crime went up
5. 1729 – Gin Act – Gin distillers had to pay a tax of 5 shillings on each gallon of gin they made and had to buy a license which cost £20 per year.
6. 1751 Gin Act was harsher – Anyone caught selling Gin illegally was imprisoned, then if they were caught again they were whipped. If caught again they were transported to Australia!

The People's Health 1750 - 1900

Box A: Key words and definitions

1. Laissez - Faire - Leave Alone, the attitude of the government.
2. Back to Back - Houses built back to back
3. Tuberculosis - a lung disease
4. Cholera - A disease spread by dirty water.
5. Malnutrition - Lack of fresh nutrients
6. Adulteration - Changing food by adding other products

Box B: Britain by 1900

1. There had been a fast movement of people into towns
2. these people came from the British Empire or the countryside
3. railways provided cheap transport for everyone
4. People stopped working from home and work from factories instead
5. there was more machinery in the countryside which helped with farming and food supplies
6. religion had declined
7. scientists discovered germs
8. members of the middle class has gained power
9. the working class were ignored
10. men were given the right to vote in 1867 and 1884 this meant the government had to take notice of them
11. Living and working conditions were terrible. People lived in poorly built slum houses and there was lots of disease. There was little access to clean water it took a long time for the government to help the poor

Box C: Terrible Living Conditions

1. The cheapest accommodation was a rented cellar which was damp and not well ventilated, this led to all kinds of lung problems
2. back-to-back housing was cheap and poorly built. Families often had just one room downstairs and one other room upstairs. This also led to chest problems
3. Migration meant that lots of people move to towns, often families lived in just one room. The effect of this was that there weren't enough privies so human waste flowed into the streets. Diseases like tuberculosis were common because of the damp walls and poorly built houses
4. There wasn't any help for the poor people. The rich people who ran town councils did not want to see their taxes increase to pay for the water and waste facilities of the Poor.
5. The government believed in an idea called laissez-faire which said they should not interfere in people's lives.
6. There was no free healthcare. Drs and medicines had to be paid for, which the poor could often not afford.
7. Diseases were so common as people didn't know about germs until 1861. Many people drank dirty water, as they didn't know it could make them sick.
8. The 6 biggest diseases were tuberculosis, influenza, diphtheria, typhoid, typhus, and cholera. these were spread easily as people live so close together.
9. Infant mortality was high, which means many children died.

Box D: Water Companies were not controlled

1. Water companies got their water from ponds rivers and streams
2. The water was off and dirty and unhealthy
3. Most of the cheap industrial housing had sewers which could not cope with the amount of human waste
4. Privies collected waste which built up until it was empty or overflowed. often 10 families would share 1 privy
5. When sewers were built they were emptied into the rivers which was where some of the water companies got their fresh water

Box E Poor Diet

1. The diet of the industrial working class was very basic. They would eat potatoes, bread, butter beer and tea.
2. In the towns and cities it was difficult to get fresh fruit and vegetables. The caused malnutrition
3. The diet with high in carbohydrates which gave them energy needed for their long working hours
4. Until the end of the 1800s there were no laws around mixing food with other products. This meant the food which the working class ate had been altered, this was called adulteration. For example, milk could be watered down and then have chalk added to make it look white.
5. Cheap meat was sometimes available but it often came from diseased animals

KnowIT

Box F Cholera

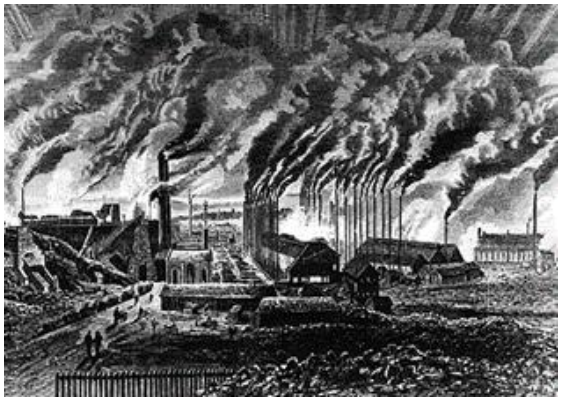
1. Cholera was brought to Britain in 1831 by sailors who arrived in British Ports from India
2. Water became infected by the excrement of people who carried the disease. This was made worse because there were no proper sewage systems.
3. There are cholera epidemics in 18 31 to 32, 1848, 1854 and 1865.
4. Cholera killed 100,000 people

Box G New Developments

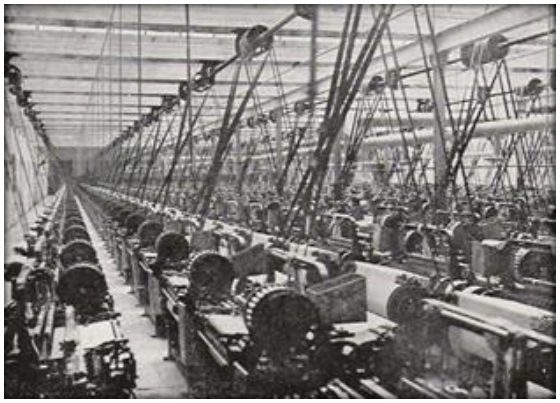
1. Knowledge about how disease spread improved to the work of John Snow and Louis Pasteur, this meant the government had to abandon its idea of laissez-faire and help the poor.
2. The miasma Theory was replaced with the germ theory
3. The 1848 public Health Act only had a limited impact. By 1853 there were only 163 places with a local board of health. There were still no government minister for public health. The government could only force councils to make improvements of their death rate is higher than 23 per 1,000
4. By 1875 new public Health Act was put in place to replace the 1848 act. This was compulsory and forced councils to take responsibility for cleaning up their towns and appointing health inspectors

Box H: Government Responses to Cholera

1. 1830 - People still believed in miasma. The church said that cholera came from God to punish sinners. Some connections were made between dirt and disease. The national government set up the central board of health to study disease in other countries, the government also told the people they should fast and pray on the 2nd of March 1832 to try and stop cholera. Local government's did things like burnt are in the street to purify the air. They also cleared rubbish from the streets. Some quarantines were set up to stop people from entering towns. They also set up separate graveyards like the one in Plympton. Local healthboards gave advice to monitor the spread of cholera
2. 1848 - Edwin Chadwick produced his report called the sanitary conditions of the labouring population. This report contained details about how dirt caused disease. This led to the public Health Act of 1848, which set up a general board of health and encouraged local councils to set up health boards and clean towns. However, this act was not compulsory, so there is Limited change. Local towns thought it would be too expensive, and local taxpayers didn't want to pay for supporting the poor.
3. 1854 - Dr John Snow proved that cholera was spread by infected water. He found evidence that a water pump near his surgery was the cause of disease in the area. However, the national government did not pay much attention as at this point there was no proof that germs even existed. Things got worse as they abolished the general board of health. However, Dr Snow did change things at a local level by removing the handle to the water pump which was causing cholera.
4. 1866 - By this point the ideas of snow were becoming more accepted. In 1861 Louis Pasteur had proved that germs caused disease, this meant there was scientific backing for Dr John Snow's ideas. At a national level this led to the Sanitary Act of 1866, which made Council is responsible for sewers, water supplies and street cleaning. This meant that the cholera outbreak in 1866 only had a limited impact. In London Joseph Bazalgette built a new sewer system in 1865 which made a huge change to public health.



The People's Health 1750 - 1900



Box I: Government Acts to Improve Health

1. 1860 - Food adulteration act - There were no laws to protect people from eating unhealthy food, for example red flower was often mixed with alum, which made it unhealthy. → this led to progress like the first law to try and prevent the contamination of food, it provided for the appointment of food analysts, and it help to get rid of laissez-faire. However, there were only 7 food analysts appointed across the country. There were no compulsory inspections of food and so the act was ignored until it was replaced in 1875 by the sale of food and Drugs act
2. 1865 - Bazalgette's New London sewerage system. London sewers flowed into the central part of the River Thames which had caused the Great Stink in 1858. The new sewer system led to massive progress, with 1300 miles of sewers been created in London, waste being taken to treatment plants, and the spread of waterborne diseases like cholera was reduced
3. 1866 - Sanitary Act - A Cholera outbreak made a need to make local councils responsible for public health which led to this development. → There was some progress as a result as it forced local councils to take action to provide fresh water sewage and waste disposal. All houses had to be connected to a main sewer. Local council's who did not carry out the work was fined by central government who would then do it for them. This also helped to get rid of laissez-faire. However, the act wasn't perfect, it was poorly worded which meant that people were often slow to respond to it
4. 1875 - Sale of Food and Drugs Act - There was still some basic food quality problems which needed solving and harsher punishments were needed for those who continue to break the law → This created some progress as it improve the quality of basic food and increased punishments for food adulteration, it also gave local councils the power to take unhealthy food.
5. 1875 - Public Health Act - In 1867 working class men got the vote which meant that the government needed to listen to them, this meant the original public Health Act needed to be replaced with a stronger one so that it's supported working class men, → this led to progress as councils were forced to clean account and provide clean water and proper drains, and medical officer had to be appointed by local councils, sanitary inspectors had to be appointed
6. 1894 - Opening of Thirlmere Dam, Manchester. Cities like Manchester found providing freshwater difficult. Developments in engineering health projects like this to happen. → It led to progress as freshwater was carried from a new Reservoir to Manchester, it also encouraged other cities to fun similar schemes. However, they took a long time to build

Box J: Food in the 1900s

1. War - During the Second World War it wasn't possible to get imports of food from other countries this meant that food have to be rationed. People were encouraged to grow their own vegetables and keep their own animals. This actually improve people's health as they were eating more fresh vegetables and the lower fat diet.
2. Technology - refrigeration and the canning of food improve the supply of food and help to make it cheaper. Fridges allowed people to keep food for longer and microwave meant that convenience foods were more widely available
3. Fears - A disease called BSE, or mad cow disease, affected cattle and spread into the human food chain. This creative fair about modern farming methods. It led to a demand for fresh local produce

Box K: Britain since 1900

1. By 1900 lots of work was taking place in heavy industry. There was no welfare state which meant there were no benefits. most of the people in England were working class. Most people went to church. Women could not vote. Life expectancy was about 50.
2. By 1900, there were very few cars, no aeroplanes, but we did have radio and electricity were starting to become popular.
3. By 2000 lots of people worked in the service industry like banking. There was a supportive welfare state which means there are lots of benefits for the poor or needy. Most people in England were middle class. Less than 10% of people went to church. Everyone over the age of 18 could vote. Life expectancy was about 77.
4. By 2000 cars were a normal feature of everyday life as was air travel. Telephones and the internet led to Instant communication and the spread of ideas. Electricity exists in almost all Homes

Box L Spanish Flu

1. Between 1918 and 1919 Spanish flu killed almost 3 times as many people world wide as the First World War.
2. the symptoms of Spanish we were terrifying with a high temperature aches pains cough and sneezing. The symptoms led into pneumonia. The skin went blue and there is bleeding from the nose ears or stomach.
3. Some people started to wear face masks to prevent contamination.
4. Newspaper , films and posters gave advice about how to prevent contamination.
5. Because so many soldiers were returning from the first world war and there were big parties it meant that the disease spread quickly.
6. Dr Niven of Manchester try to prevent the spread of disease in Manchester. He said that people should close the cinemas, Sunday schools, regular schools and he sent leaflets door-to-door telling people how to prevent the spread of disease. However, not everyone would listen to him, with cinemas not wanting to close because it would affect their profits and Sunday schools not wanting to close because of their religious duties.

The People's Health 1900 +

Box M Changing Living Conditions

1. Smog - Became a problem in cities. It was a combination of smoke and fog, it caused diseases like pneumonia.
2. The clean air act of 1956 made people burn smokeless fuel such as charcoal which helped to create smoke-free zones which help solve the problem of the killer smog.
3. Since 1980, the huge increase in car ownership and other forms of transport has created air pollution
4. During the second world war people became healthier and did more physical activity as fuel supplies were rationed
5. Labour saving devices like cars televisions and computers have led to people becoming less active and obesity is becoming a problem
6. Since the 1980s Britain has faced a series of health scares about food, the amount of sugar consumed by children is causing me health problems

Box N: Housing in the 1900s

1. The First World War - This had a positive impact on housing as the government took responsibility for building new homes. They built about 50% of the houses they promised building 500,000 new homes. 1930 Housing Act led to the final clearance of slums
2. Second World War - this led to new high rise accommodation with gas and electricity. However, it was felt that the high Rises destroyed community spirit.
3. Thatcher - Margaret Thatcher made it to that people who lived in a council house could buy their home, this was called the right to buy. However, local councils could not afford to replace the houses that they sold which meant that there was less accommodation available for the most needing and has increased the housing crisis today

Box O HIV and AIDs

1. AIDS Stands for acquired immune deficiency syndrome. It is caused by a virus called HIV, which stands for human immunodeficiency virus. The virus is spread through blood or bodily fluids, for example through sex, sharing needles , of from mothers do babies in the womb.
2. The way in which people responded to HIV and AIDS changed as it first we didn't understand it or caused it as understanding increased more was done to help prevent the spread.
3. 1970 - 1993 - Raised awareness of the disease for a negative reaction. People with the disease was stigmatised it was seen as shameful. Some people called it The gay plague, as it mostly affected homosexual men but could be spread to anyone.
4. 1984 - 1985 - People were scared that AIDS could be spread through even the slightest contact with the Victim, the police and Fire departments stopped giving mouth to mouth for fear of catching the disease, people would wear gloves when dealing with people with HIV and AIDS.
5. 1986 - 87 - we began to get better understanding of AIDS. Princess Diana went to an AIDS hospital and shook hands and hugged aid victims showing the disease was not spread by touch. There were also publicity campaigns to help educate the public with campaigns such as don't die of ignorance by the government
6. 1988 - 1995 - there was an understanding and acceptance of HIV and AIDS. TV programmes like Eastenders even brand stories about AIDs victims
7. 1996 onwards - there is less of an awareness of HIV and AIDS now as the government is no longer funding mass campaigns. cases of HIV and AIDS have begun to rise

The People's Health 1900+

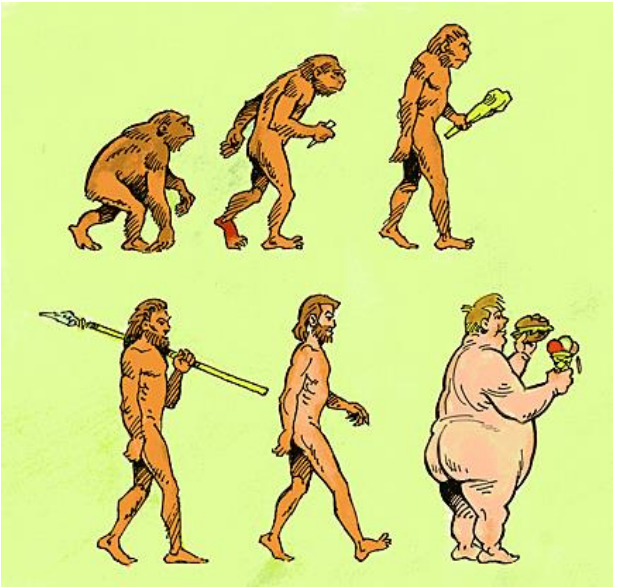
KnowIT

Box P Growing Government Involvement in Public Health 1900+

1. 1902 - The Midwives act. This meant Midwives had to have special training and a certificate. The central Midwives board with setup and lasted until 1951
2. 1906 - Free school meals. This providing a hot meal for some for children as it was the responsibility of local councils to choose whether to fund then or not. The principle of giving poor children a free meal was made compulsory in 1914 the school milk scheme began in 1934
3. 1907 - Medical Inspections in schools. It had an immediate impact as it examined all children but it did not treat the problems it found. School clinics were set up in 1912 to treat the children, medical inspections continued and by 1930 most councils have provisions to treat minor illnesses in school children.
4. 1908 - Old age pensions - It saved many of the old poor from going to a workhouse which is where they would end up if they were poor homeless and penniless. It provided money through taxation to give the elderly a set amount of money which they could live on and therefore it meant that they no longer had to work. This is still used today
5. 1911 - National Insurance - It protected against unemployment and sickness by providing money for people to live on. However, it only helped working men not women. This has been changed but still exist today.
6. 1919 - The Housing Act - the act promised 500000 homes which were fit for Heroes. But only half of them were built. A series of Housing Act meant that slum clearances took place and councils began to replace housing, with the recognition that housing was the responsibility of the government.
7. 1929 - The Local Government Act - The workhouse system was ended. Local council's take responsibility for running local hospitals. The old workhouses were sometimes changed into the new hospitals.
8. 1940 - Immunisations - A mass immunisation programme against diphtheria was started in 1940 and then one against tuberculosis in 1948. Vaccinations Have become routine under the National Health Service.
9. 1948 - The NHS - This was a massive step forward and provided free medical care for all UK citizens something which it never happened before . It even the poor to get free healthcare. However, today the NHS is under great strain as it has become more expensive. Ordinary people are encouraged to take more responsibility for their own health by trying to choose healthy lifestyle rather than one of junk food and no exercise.
10. 1956 - Clean Air Act - this introduced areas of smokeless fuel burning to help combat the smog. It was the first in a series of laws designed to protect the environment.
11. 1974 - Health and Safety at work - regulations were put in place to ensure that health and safety of workers was protected these are still in place today

Box Q Government - Smoking and Obesity

1. In 1962 the link between smoking and cancer was accepted so the government began to introduce measures to encourage people to stop smoking
2. Between 1964 and 2016 the government has taken a range of steps to tackle smoking, This includes banning cigarette advertising, Promoting nicotine replacement products, and banning smoking in public places like pubs (2007). Finally, they made cigarette packaging blank in 2016.
3. The government is also trying to tackle obesity which is a major cause of heart disease, campaigns to eat less and move more helping to combat this problem
4. The government has been criticised for being too slow to act possibly because of the loss in tax if they ban cigarettes completely and the loss of donations from tobacco companies if they ban cigarettes completely.
5. Some criticise the government for getting too involved and see that people should be free to do whatever they want even if it harms them



Protein

Low Biological Value **(LBV)** protein: Food that is deficient in one or more of the amino acids are said to have LBV.
Sources:
- Seeds and Nuts
- Beans and Legumes
- Plant based products e.g.: Oats and cereals

High Biological Value **(HBV)** protein: Food that contains **ALL** the essential amino acids is said to have HBV.
Sources:
- Animal products (meat, fish, eggs)
- Dairy products

Complimentary Proteins: mix HBV's and LBV's or combine LBV's to contain all essential amino acids the body needs.

Carbohydrate

Is a macronutrient- The three main types of carbohydrate are **starch, sugar and fibre.**

They are needed in the body for energy, aiding digestion, bulking your diet and helping to lower blood cholesterol levels

Sugars:
Sugars within carbohydrates come in two different forms, intrinsic sugars (found in the cells of vegetables and fruit extrinsic sugars (processed sugars)

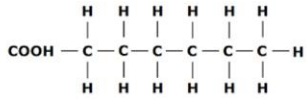
Fibre:
(NSP) is the cellulose found in the outer skins of the flesh of fruits and vegetables.
This can be split into two further groups.
Soluble and Insoluble

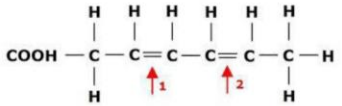
Starch:
Starch is found in cereal, they are filling and provide you with slow release energy.

Fats

Essential fatty acids (EFA): *cannot be made in the body*, but are vital for our health and the function of our bodies.
Examples include:
Omega 3- protects the heart, found in oily fish and green leafy vegetables
Omega 6- helps to lower cholesterol, found in vegetables, grains, seeds and poultry.

Functions of fats:
- ✓ Energy
- ✓ Insulation
- ✓ Protects organs
- ✓ Texture and flavour to food
- ✓ Source of some fat soluble vitamins.

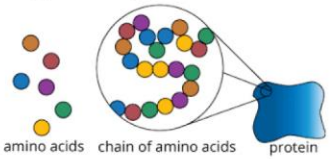




Protein

Essential macronutrient made up of complex amino acids- we obtain these through eating food.

Protein is needed for:
- Growth
- Repair of body tissues
- To promote enzyme manufacture
- As a secondary source of energy



A lack of protein causes:
- Slow physical development in children
- Digestive problems
- Malfunction of liver
- Weakening of muscles
- Kwashikor

Protein Value: Based on the biological value of protein (HBV or LBV).

Essential amino acids: Adults need 10, children need 8.

Vitamins

Vitamin	Sources	Function	Deficiency
A	Eggs, cheese, green vegetables	Keeps skin healthy, vision, growth	Night blindness, stunted growth,
E	Plant foods	antioxidant	Rare
D	Sunlight, oily fish	Absorption of calcium, strengthen bones and teeth	Rickets, weakening of bones.
K	Green vegetables	Blood clotting	Rare
B	Milk, Meat, green vegetables	Enables energy to be released	Rare
C	Fruits eg oranges	Aids the absorption of iron, immune system	Anaemia, longer healing wounds

Vitamins and Minerals

Vitamins: These are micronutrients. You can obtain all of the vitamins you need to be healthy by eating a wide varied diet.

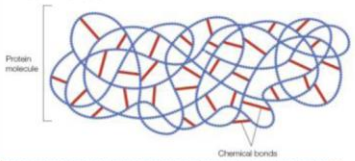
Vitamins are split in to **fat-soluble** (vitamins A and D for example *can* dissolve in fat and can be stored) and **water-soluble** (vitamins such as B and C as well as folate/ folic acid. These are dissolved in water and *cannot* be stored in the body.)

Minerals: these are micronutrients needed to maintain good health they are used in the building the body and controlling how it works.

Mineral	Source	Function	Deficiency
Calcium	Milk, vegetables	Bones and teeth	Rickets
Iron	Meat, egg	Blood and oxygen transportation	Anaemia
Sodium	Salt, cheese	Maintains water	Cramp, CHD
Fluoride	Fish, water, tea	Strengthens teeth	Tooth decay

Functional and Chemical Properties: Protein

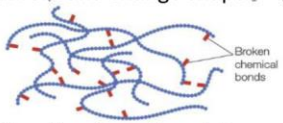
Protein molecules are large so they often fold around themselves into compact bundles



Coagulation is the process of joining together of lots of denatured protein molecules, which changes the appearance and texture of the food. As the proteins coagulate they trap and hold water leading to the change in appearance and texture of food.

Protein can be easily **denatured**

That means the chemical bonds which hold the protein molecules in a bundle can be broken, which makes the protein molecule bundle unfold and change shape.



Denaturation of protein molecules can be caused by:

- Heat
- Acids
- Air bubbles
- Tenderising
- Mechanical agitation

Functional and Chemical Properties: Carbohydrate

Gelatinisation- This is the swelling of starch granules when they are cooked with a liquid to the point where they burst and release starch molecules.

- 60°C The process begins and starch swells
- 85°C Starch molecules break open and release amylose into the liquid that thickens it.
- 100°C the process is complete

Dextrinisation- This happens in foods containing starch such as bread and cakes are cooked by dry heating methods. They develop a brown texture on the outside.

This is partly due to the effect of heat on the starch molecules which break into smaller groups of glucose molecules called dextrin.

Caramelisation-
The breaking up of sugar molecules when heated, which changes the colour, flavour and texture of sugar as it turns into caramel.

Functional and Chemical Properties: Fats

Plasticity
The ability of a fat to soften over a range of temperatures and be shaped and spread with light pressure

Shortening
This ability of hard fats to create a "short crumbly" texture to some products is called SHORTENING
This is because of the high fat content which is mixed in with the flour and prevents the gluten from forming long molecules.

Aeration
The ability of some fats to trap lots of air bubbles when beaten together with sugar e.g. in a cake.

Emulsification
Either keeping drops of oil or fat suspended in a liquid preventing them from spreading out; or keeping drops of water suspended in an oil or fat and preventing them from separating out.

Functional and Chemical Properties: Raising agents

Chemical

- Baking powder

This is a mixture of two chemicals an alkali and an acid which react when there is moisture and heat. Added to plain flour to make self raising flour

- Bicarbonate of soda

Produces carbon dioxide when there is moisture and heat
Can only be used in strong flavoured dishes like chocolate cakes or gingerbreads.

- Yeast

A tiny, single celled plant that you can only see under a microscope. When it has moisture and warmth and food (sugar or starch), it breaks down the food into CO2 and alcohol.

Mechanical

- Sieving

Traps air between flour particles

- Creaming

traps tiny air bubbles which expand and make the cake rise.

- Whisking

Traps a large amounts of bubbles as the air is trapped in the egg protein.

- Folding and rolling

layers of air are trapped. During baking the fat melts and leaves a space that is filled with steam from the water

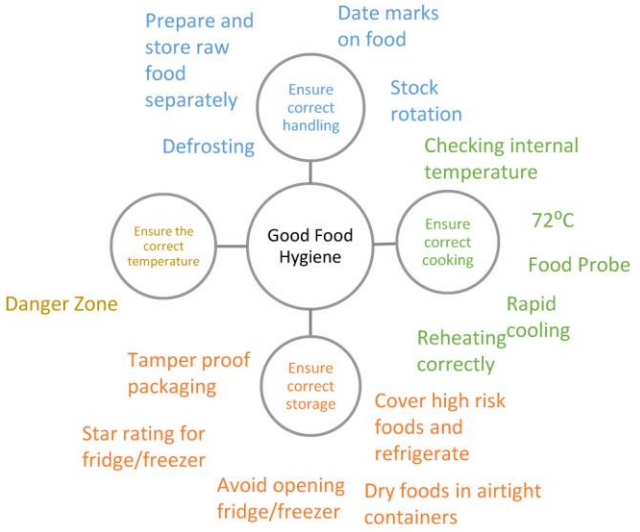
- Rubbing in

traps some air in the mixture

Functional properties of food: Glossary

- **Thickening and gelatinisation-** The process of starch thickening. Starch when heated swells, it bursts open at 75°C releasing amylose. This then thickens the liquid.
- **Dextrinization**- starch when heated turns into sugar and then to a caramel- this gives the golden colour.
- **Carmelisation-** heating sugar crystals turns products to caramel.
- **Coagulation (setting)** heating proteins denatures them, as they are heated they then begin to set. This happens when you cook and egg.
- **Aeration**- Adding raising agents. Sieving dry ingredients, helps a mixture to rise.
- **Foaming-** egg whites holding air. Stretching of proteins
- **Fermentation**- yeast respiring and producing carbon dioxide creating air bubbles in bread. (see below)

Food Hygiene



Produced by C. Gill 2023

Fats

A macronutrient. They are made up of chemical elements, carbon, hydrogen and oxygen combined these form fatty acids and glycerol.
Fatty acids can be saturated, or unsaturated (this depends on the arrangement of the carbon and hydrogen atoms)

Saturated Fats:
- Solid at room temperature
- Found in foods that originate from animals
- Contain high levels of cholesterol
- Cause a build up of fatty deposits. Causing CHD in some people.

Unsaturated Fats:
-Found in plants and oily fish
-Polyunsaturated fats are liquid or soft at room temp. They contain two or more pairs of carbon atoms and are therefore capable of holding two more hydrogen atoms.

Eatwell guide

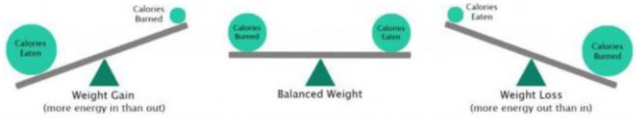
1. Base your meals on starchy carbohydrates.
2. Eat lots of fruit and veg.
3. Eat more fish – including a portion of oily fish.
4. Cut down on saturated fat and sugar.
5. Eat less salt – no more than 6g a day for adults.
6. Get active and be a healthy weight.
7. Don't get thirsty.
8. Don't skip breakfast.

Energy Needs

BMR= **Basal Metabolic Rate** is the number of calories required to keep your body functioning at rest.

PAL= **Physical Activity Level**, this is the amount of energy we use for movement and physical activity every day.

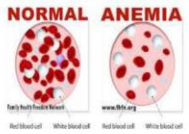
Energy Balance= The amount of energy we get from food each day is the same amount that we use.



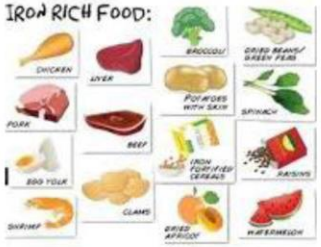
Anaemia

Anaemia is a condition where a lack of iron in the body leads to a reduction in the number of red blood cells. Iron is used to produce red blood cells, which help store and carry oxygen in the blood.

What causes it?
- Heavy periods
- Pregnancy
- Stomach ulser
- Lack of iron in diet

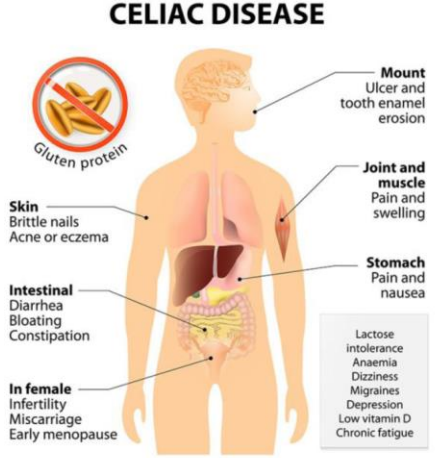


Symptoms include:
- Fatigue
- Weakness
- Dizziness
- Headaches
- Pale
- Rapid heartbeat
- Shortness of breath



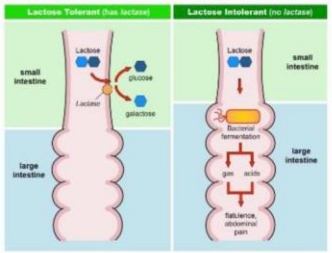
Making informed choices: Coeliac

A COELIAC is a person who has a sensitivity to GLUTEN. A COELIAC suffers from a medical condition called Coeliac Disease.



Making informed choices: Lactose

Lactose intolerance is a common digestive problem where the body is unable to digest lactose, a type of sugar mainly found in milk and dairy products.



Symptoms of lactose intolerance usually develop within a few hours of consuming food or drink that contains lactose. They may include:
- flatulence (wind)
- diarrhoea
- bloated stomach
- stomach cramps and pains
- stomach rumbling
- feeling sick

Life stages- Babies

Babies require breast milk, this provides all the nutrients a baby needs for growing. They will be breast fed for the first 6 months.

Pregnancy and breast feeding

During pregnancy the mother will need to have a varied diet with enough energy and nutrients. They should consume more Folic Acid, Iron and Calcium.

When the baby is born the mother needs to continue to eat a healthy balanced and varied diet. She will need to have foods rich in the nutrients, calcium, phosperous and also the vitamins A and C

Life stages- Children

What happens at this stage:
Growth continues in 'spurt's
Children should aim to be physically active most of the time

Important nutrients:
- Protein
- Carbohydrate
- Fat
- All minerals
- All vitamins
- Fibre
- Water

Encourage them to:
Regular well balanced meals
Try new foods
Learn about how they can prepare and get involved with meals.

Discourage them from eating:
Grazing on snacks in between meals
Drinking and eating too many sugary snacks

Life stages- Teenagers

What happens at this stage:
Body grows rapidly
Minerals are taken into the bones and teeth
Girls start periods
Pressures from school

Important nutrients:
- Protein
- Carbohydrate
- Fat
- All minerals
- All vitamins
- Fibre
- Water

Encourage them to:
Follow the Eatwell guide and eat regular meals
Include plenty of iron rich foods in the diet
Spend time outdoors
Eat breakfast.

Discourage them from:
Drinking and eating too much sugar and salt
Skipping meals
Eating lots of energy dense foods.

Life stages- Toddlers

What happens at this stage:
Growth and development rapidly
Lots of energy used

Important nutrients:
- Protein
- Carbohydrate
- Fat
- All minerals
- All vitamins
- Fibre
- Water

Encourage them to eat:
Small but regular meals or drinks.
Try new foods but do not force them
Eat until there are full
Sit at a table

Discourage them from eating:
Eating snacks between meals
Avoid sugary sweets and drinks

Life stages- Adults

What happens at this stage:
The body doesn't grow anymore.
Maintain the body to keep it strong, disease free and active
Weight gain can occur if energy intake is unbalanced.

Important nutrients:
- Protein
- Carbohydrate
- Fat
- Vitamins A, B, C, D, E
- Fats (especially omega 3 and fatty acids)
- Minerals

Encourage them to:
Follow the Eatwell guide and eat regular balanced meals
Eat plenty of calcium rich foods
Spend time outdoors exercising

Discourage them from:
Eating lots of energy dense fats
Adding lots of sugar and salt to food

Life stages- Elderly

What happens at this stage:
Body systems start to slow
Blood pressure may increase
Appetite gets smaller
Sense of smell and taste diminishes
Skeleton starts to loose minerals

Important nutrients:
- Protein
- Carbohydrate
- Fat
- Vitamins A, B, C, D, E
- Fats (especially omega 3 and fatty acids)
- Minerals
- Calcium and vitamin D
- Iron

Encourage them to eat:
Follow the Eatwell guide
Eat plenty of fresh foods
Get regular exercise and drink lots of water
Eat enough fibre

Discourage them from eating:
Too many sugar and salty foods

Skeletal Disease

Rickets is a condition that affects bone development in children. It causes bone pain, poor growth and soft, weak bones that can lead to bone deformities.

What causes it?

A lack of vitamin D or calcium is the most common cause of rickets. Vitamin D largely comes from exposing the skin to sunlight, but it's also found in some foods, such as oily fish and eggs. Vitamin D is essential for the formation of strong and healthy bones in children.

Rickets can easily be prevented by:

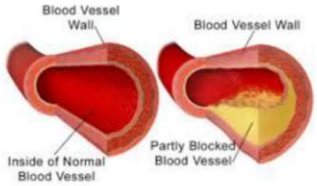
- Eating a diet that includes vitamin D
- Eating a diet that includes calcium
- Spending some time in sunlight
- If necessary, taking vitamin D supplements.

Cardiovascular Disease

Coronary heart disease is the term that describes what happens when your heart's blood supply is blocked or interrupted by a build-up of fatty substances in the coronary arteries.

1. Fatty cholesterol plaques develop over time
2. Hard outer layer of plaque can crack
3. Platelets form blood clots around the cracks
4. Artery narrows even more
5. Blood flow blocked – oxygen doesn't reach the heart muscle, so the muscle dies

Over time, the walls of your arteries can become furred up with fatty deposits.



Normal and Partly Blocked Blood Vessel

Obesity

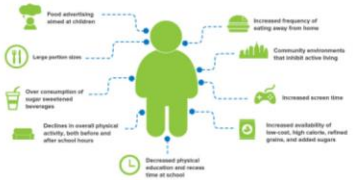
Obesity is a diet related disease in which the body contains too much stored fat.

It is caused by not being in energy balance

Obesity has become a very serious problem all over the world and is linked to the over consumption of processed foods such as: ready meals, fast food, and some hot and cold drinks.

The body stores the excess fat and can cause a number of health related problems such as:

- Breathing issues
- Type 2 diabetes
- CHD
- Cancers

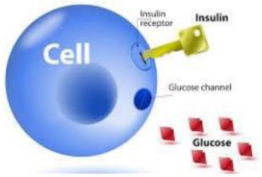


Diabetes type 2

Diabetes is a serious condition where your blood glucose level is too high.

Diabetes causes people to have too much glucose (sugar) in their blood. Glucose gives us energy. We get glucose when our bodies break down the carbohydrates that we eat or drink. And that glucose is released into our blood.

We also need a hormone called insulin- made by our pancreas, insulin allows the glucose in our blood to enter our cells and fuel our bodies.



Symptoms of Type 2 diabetes

- Feeling tired
- Needing the toilet a lot
- Thirst
- Slow healing wounds
- Yeast infections

Managing Type 2 diabetes

- Healthy eating
- Becoming more active
- Loosing weight
- Using medication to bring down glucose levels. Either through tablets or insulin injections.

Food Intolerance & Allergy

Intolerance

- Usually reactions are delayed and symptoms may take several hours, or even several days to appear
- Multiple symptoms can occur and be many and varied, from migraine to bloating, diarrhoea, lethargy, joint pain and a general feeling of poor health
- Reactions can occur after ingesting small amounts of a culprit food but are usually triggered by larger amounts

Allergy

- Food allergy is a reaction caused by the immune system's reaction to a food. The immune system usually makes specific antibodies to 'fight off' the allergens found in these foods. This results in the release of histamine and other naturally occurring chemicals in the body, which subsequently cause inflammation.
- Symptoms can be mild or severe and can involve the skin, gut, breathing or the whole body's circulation system

Vegetarian

Lacto-ovo-vegetarians eat both dairy products and eggs; this is the most common type of vegetarian diet.

Lacto-vegetarians eat dairy products but avoid eggs.

Ovo-vegetarian. Eats eggs but not dairy products.

Vegans do not eat dairy products, eggs, or any other products which are derived from animals.

HOSPITALITY & CATERING

Moral issues

Factory Farming- animals kept in disturbing living conditions where intensive factory farming restricts the movement of animals. The red tractor sign marks quality and guarantees food has come from companies that follow high standards.

Fair Trade- About trade that offers better prices, better working conditions, local sustainability and fairer terms of trade for farmers and workers in the developing world.

Organic farming- low carbon production systems that works with nature sustaining the health of the soil, ecosystem and people. It relies on ecological process and biodiversity. It can be more expensive but the taste, seasonality, nutrition is generally thought to be better.

Religious diets

Islam: *Prohibited animal flesh: pork.*
The Koran outlines the foods which can be eaten (halal) and those forbidden (haram).
Beef, lamb and chicken can only be eaten if the animal has been slaughtered by the halal method. This means that the animal must be killed by slitting its throat. The animal will then have all the blood drained from its body.

Judaism: *Prohibited animal flesh: pork and non-kosher beef, lamb and chicken.*

Kosher animals have a completely split hoof and chew cud, e.g. cows, goat and sheep. Horses and pigs are not Kosher animals. Kosher fish must have fins and scales, therefore shellfish and eels are excluded.

Hindu: *Prohibited animal flesh: all, except lamb, chicken and fish.*

Strict Hindus are vegetarian. The cow is held in high regard and a symbol of abundance, therefore Hindus do not eat beef.

Religious diets

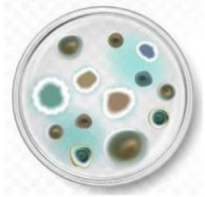
Sikhism: *Prohibited animal flesh: pork, beef, halal and kosher.*
Sikhs do not eat halal or kosher meat because they are not meant to take part in religious rituals apart from the Sikh Rehat Maryada (Code of Conduct). They should also refrain from food and drinks which may harm their body, e.g. alcohol.

Buddhism: *Prohibited animal flesh: all.*
Buddhists believe they should not be responsible for the death of any other living organism. Therefore, most Buddhists follow a strict vegetarian, if not vegan diet. They also avoid the consumption of alcohol.

Seventh-Day Adventist Church: *Prohibited animal flesh: pork, beef and lamb.*
Many Adventists are ovo-lacto vegetarians, which means they do not consume animal flesh of any kind, but will consume dairy and egg products.Some Adventists avoid food and drinks which contain caffeine, therefore they do not consume tea and coffee. They also avoid alcohol.

Microorganisms

Yeast – found in soil, in the air and on some fruits. They are one celled organisms and apart of a group of organisms called fungi. They reproduce by budding: this means they multiply and the one cell divides into two



Moulds – they are also a type of fungi. They can be blue, green, black or white in colour. They reproduce by producing spores which will travel in the air and land on foods, they will then grow in the correct conditions.

Bacteria – Extremely small single cell organisms. Bacteria can be found everywhere, in air, water, food, on animals and humans. Bacteria produce very quickly by dividing into two every 20 minutes if the conditions are correct.

Enzymes

Enzymes are natural substances (mostly Proteins) that are found in foods and all living things.
They are called biological catalysts, which means they have the ability to speed up reactions.

Enzymic browning is a chemical process which occurs in some fruits and vegetables. It causes the them to discolour, usually turning a brown colour.

Once the fruit or vegetable is cut, some of the cells are opened up to the air.
The enzyme polyphenol oxidase then reacts with the **oxygen** in the air and as a result the fruit & vegetables will turn brown.

Food spoilage

Fresh foods can spoil quickly during storage. You may notice a change in the texture, flavour or colour of the food. These changes are generally caused by bacteria, moulds and yeasts. Enzymes will also cause food to spoil as well as the natural decay of foods. Foods that have spoiled are often said to have 'gone off'

Signs of food spoilage:

- A sour smell or taste
- Areas of mould on food
- A slimy feel to the surface of food
- A loss of moisture leading to wrinkled food that can be discoloured
- Foods looking or feeling over dry or wet

Micro organisums in food production

There are many types of micro-organism that are non-pathogenic and do not cause food poisoning and are used in the production of many familiar food products.

Moulds are added to blue cheese- the mould gives the cheese texture, and a distinctive sharp, tangy taste.

Yeasts make bread rise, with the correct conditions the yeast ferments with the sugar and produces CO^2 which makes the bread rise.

Bacteria are used to make yoghurt. Milk is pasteurised to kill the bad bacteria, then non-pathogenic bacteria are added these ferment and produce lactic acid. This then makes the milk thicken and gives it a sour and tangy taste.

Buying and storing food

Storing food at the right temperature ensures that it remains at its best for as long as possible and prolongs the contamination from pathogenic bacteria.

Storing food in the fridge:
Fridges should be between **0°-5°C**
Keep foods covered
Always store raw meats, poultry, fish etc at the bottom of the fridge.

Storing food in the freezer:
Freezers should be -18°C
Clearly label foods
Defrost foods thoroughly before cooking in the fridge

Storing food in the cupboard:
Keep in a sealed container
Keep in a cool dry place

Food Provenance

Foods that are grown:
Crops such as wheat and barley are grown in the UK. To get the best crops farmers- prepare the soil, keep crops free from weeds and pests and then harvest them.

Food that is reared:

Animals that are reared are cattle, for meat and milk, Chickens for meat and eggs, sheep and lamb.

Foods that are caught:
This can be done through trawling, line caching, or through the use of pots like lobster pots

Food that is gathered:

Plant foods are gathered from the wild for eating eg herbs, edible fungi, berries and seaweed)

Seasonal Produce

Seasonal foods (mostly plants) are ready to be harvested at the stage of their life cycle when they are at their best for flavour, colour and texture

Seasonal foods often have a better nutritional value, are cheaper, and have less environmental impact on the planet.

Environmental impact and food waste

Food production contributes to global warming during:
Growing and rearing / farming
Processing and manufacturing
Packaging
Transportation
Storage
Cooking
Waste

All of these things link to the increase in the carbon footprint. Meat and dairy production has the highest carbon footprint.

Food waste

7 million tonnes (approx.) is wasted a year, this means it goes to landfill and isn't consumed.
The main reasons for people wasting food are:

- Poor meal planning
- Serving portions are too large
- Not storing food properly
- Misunderstanding use by dates

Food security

Food security is about ensuring that all people, at all times have access to enough safe and nutritious food.

1. AVAILABILITY OF FOOD – the physical availability of food, this is about the supply of food. The amount of food available in a country depends on the production, storage and trade.

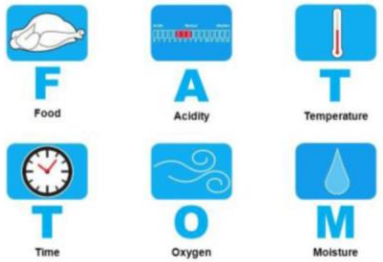
2. ACCESS TO FOOD – The access to food is affected by the cost of food, if the food prices are high it can impact those who are on low incomes. Issues like land to grow the food on and poor transport systems can also impact peoples access to food.

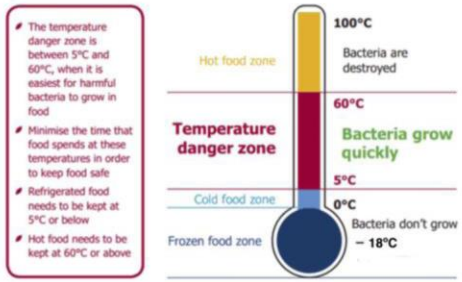
3. USE OF FOOD – This refers to how the body uses the nutrients. People need to understand how to eat food correctly to get a balanced diet.

4. STABILITY OF THE SUPPLY – this is about the supply of food over time. Poor weather and economic factors can have effects on the long term supply of food supplies.

Bacteria

Bacteria need the following conditions to grow:





These are temperature zones that relate to bacteria growth.

Technological Development

- **Man made:**
  - Smart food materials: raw ingredients that have one or more properties that can be significantly changed.
  - Modified Starch: Synthetic man made additive that can be used as a thickener or stabiliser.
- **Novel functions:**
  - Sweeteners: added to change the working characteristics of a food substance.
  - Stabilisers: Prevents the separation of foods and improve consistency.
  - Gelling agents: help improve consistency.
- **Functional:**
  - Nutraceuticals: health promoting or disease fighting properties. They have to be labelled.
  - Prebiotics: healthy non digestible food ingredients that contain NSP
  - Probiotics: bio cultures containing living helpful bacteria.
- **Specially Developed:**
  - Meat analogues: Quorn, tofu.
- **Nanotechnology:**
  - Innovation in food science and technology that involves the use of materials and structures at a tiny scale.

Exam Question tips: understand the language.

- Give/ state/ name: quick one mark questions
- Describe/ Outline: straightforward questions describe something in detail some questions may ask for some drawings.
- Explain/ Justify: asking you to respond in detail to the question. DO NOT USE SHORT PHRASES. Make sure that you make a valid point and justify it.
- Evaluate/ Discus/Compare: These appear towards the end of the paper and are designed to challenge you. Make sure your arguments are well balanced and include advantages and disadvantages

Milk Production

Primary and secondary processing of milk
The processing of milk starts on the farm. The farmer milks the cows two to three times daily.
Milk is then transported from the farm to the factory to be processed.

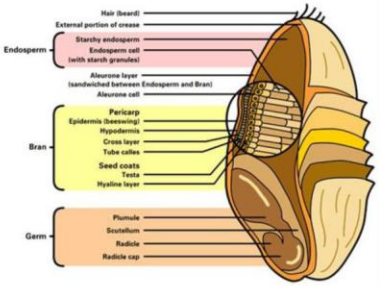
The milk is then **pasteurised**. This means that it is heated to a high temperature to kill bacteria, it is then cooled again.

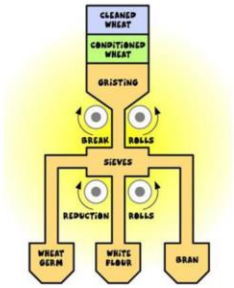
The cream is then separated from the milk. It is added back into the milk depending on what type of milk is required – skimmed, semi-skimmed or full fat.

The final step is **homogenisation**. This ensures the cream (or fat) is evenly distributed through the milk which will now have a smooth consistency and is ready to be sold.

Wheat Production

Primary processing is the conversion of raw materials into food commodities – for example, milling wheat into flour.





Secondary processing is when the primary product is changed to another product – for example, turning wheat flour into bread.

Exam Question tips:

- ✓ Use these revision cards to help you.
- ✓ Read, cover, write over and over.
- ✓ Get someone to test you.
- ✓ Keep hydrated.
- ✓ Remember to bring a pencil to the exam.
- ✓ Structure your tine well, the design question is worth lots of marks so make sure you attempt that.

Good Luck!

Component 1 - Exploring Music Products and Styles

Each year, the music industry produces a wide range of products such as recordings, compositions, live performances, music for film, TV and computer games. Have you ever wondered how these products are created? Through Music industry products you will consider the impact of the music for the purpose and intended audience it was created for.

Types of music product: o live performance o audio recording o composition for media, such as film, TV, adverts and computer games o original song or composition o Digital Audio workstation (DAW) project.

What Styles of Music are there?

- Popular music styles
- world music and fusion
- music for media
- western classical styles of music
- jazz and blues

Through Component 1 you will understand through practical work how music from a variety of styles is performed, created and produced in order to produce their own products.

Key objective:

To understand stylistic features and characteristic of a genre of music and how it develops.

- **Popular music styles -** a minimum of one from each of the following groups:
  - **group 1**: 50s and 60s, e.g. rock 'n' roll, British invasion, folk revival, Motown and soul, psychedelic
  - **group 2**: 70s and 80s, e.g. heavy metal, prog, punk, disco, reggae, synth pop, hip-hop, post punk, hardcore
  - **group 3**: 90s to present, e.g. grunge, Britpop, rave, techno, house/techno, drum and bass, nu-metal, pop punk, dubstep, reggaeton, grime, trap.

other music styles - a minimum of one style from two of the following groups:

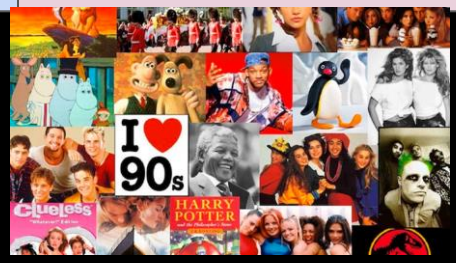
- **group 4**: world music and fusion, e.g. samba, bhangra, African drumming, gamelan
- **group 5**: music for media (film, TV or computer games), e.g. jingles, theme tunes, soundscapes, ambient music, Foley, diegetic, non-diegetic, motifs and leitmotifs, thematic development
- **group 6**: western classical styles of music, e.g. baroque, classical, romantic, orchestral, leitmotif, minimalism, serialism
- **group 7**: jazz and blues, e.g. delta blues, trad jazz, bebop, swing/big band, modal jazz.

World Music

Bhangra Music

Gamelan Music

African Drumming



1960's and 70's Pop music

BTEC: Component 1

In North America and Europe the decade was particularly revolutionary in terms of popular music, as it saw the evolution of rock. At the beginning of the 1960s, pop and rock and roll trends of the 1950s continued; nevertheless, the rock and roll of the decade before started to merge into a more international, eclectic variant known as rock. In the early-1960s, rock and roll in its purest form was gradually overtaken by pop rock, beat, psychedelic rock, blues rock, and folk rock, which had grown in popularity.

1960's Iconic Groups

The Beatles were an English rock band formed in Liverpool in 1960. with a line-up comprising John Lennon, Paul McCartney, George Harrison and Ringo Starr, they are regarded as the most influential band of all time. The group were integral to the evolution of pop music into an art form and to the development of the counterculture of the 1960s.

The Rolling Stones are an English rock band formed in London in 1962. The first stable line up consisted of bandleader Brian Jones (guitar, harmonica, keyboards), Mick Jagger (lead vocals) Keith Richards (guitar, vocals), Bill Wyman (bass), Charlie Watts (drums) and Ian Steward (piano). The group were at the forefront of British invasion bands.

The who are an English rock band formed in London in 1964. Their classic line-up consisted of lead singer Roger Daltrey, guitarist and singer Pete Townshend, bass guitarist John Entwistle and drummer Keith Moon. They are considered one of the most influential rock bands of the 20th Century, selling over 100 million records worldwide.

Component 1 - Exploring Music Products and Styles

1960's British Invasion

Beat Music - Beat music, British beat, or Merseybeat (after bands from Liverpool and nearby areas beside the River Mersey) is a popular music genre of rock and roll that developed in the United Kingdom in the early 1960s

Listen to this piece by The Searchers - what are the main features of the Music?

https://youtu.be/7rXhXLsNvL8

Love Potion No. 9 - The Searchers

- Instrumentation - 2 x Guitar, Bass,
Drums, Vocals
- 4/4 Time signature
- Up beat tempo
- Catchy Tune
- Simple
- Accented Guitar Chords
- Drum fills

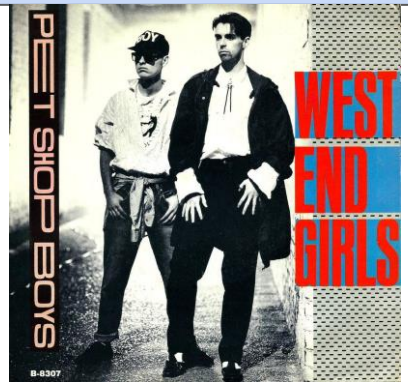
1960's British Invasion- Beat Music

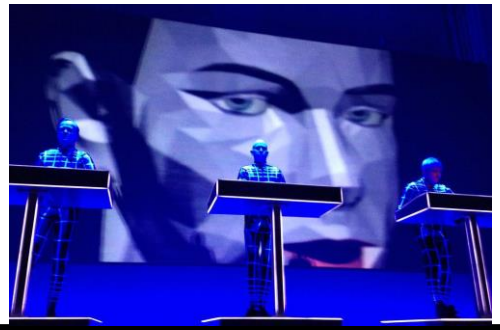
Main Features
Strong beat, using the backbeat common to rock and roll and rhythm and
blues, but often with a driving emphasis on all the beats of 4/4 bar.
The chord playing of the rhythm guitar was broken up into a series of separate
strokes, often one chord per bar
very simple on the beat bass playing
simple guitar-dominated line-ups, with vocal harmonies and catchy tunes.
The most common instrumentation of beat groups featured lead, rhythm and
bass guitars plus drums
Beat groups often sang both verses and choruses in close harmony, resembling
doo wop, with nonsense syllables in the backing vocals

1980's Synth Pop

Synth-pop was defined by its primary use of synthesizers, drum machines and sequencers, sometimes using them to replace all other instruments.

Many synth-pop musicians had limited musical skills, relying on the technology to produce or reproduce the music. The result was often minimalist, with grooves that were "typically woven together from simple repeated riffs often with no harmonic 'progression' to speak of".





1980's Iconic Groups

The Pet Shop Boys Formed in London in 1981 by vocalist Tennant (then a writer for the music magazine Smash Hits) and keyboardist Lowe, the Pet Shop Boys arrived at a clever pairing of ironic, coolly delivered lyrics and catchy synthesizer-based dance music, underlain by emotional tension. They incorporated the sounds of disco, the frenetic style known as Hi-NRG, house, and techno.

Depeche Mode are an English electronic music band formed in Basildon, Essex, in 1980. The band currently consists of Dave Gahan (lead vocals and co-songwriting) and Martin Gore (keyboards, guitar, co-lead vocals and main songwriting). Depeche Mode were called "the quintessential eighties techno-pop band" by Rolling Stone.

Kraftwerk are a German experimental group widely regarded as the godfathers of electronic pop music. The original members were Ralf Hütter and Florian Schneider. The foundation for Kraftwerk's music was the sounds of everyday life, a concept first fully realized on the 22-minute title track of the Autobahn album (1974).

1960s and 70s Pop music

BTEC: Component 1

In North America and Europe the decade was particularly revolutionary in terms of popular music, as it saw the evolution of rock. At the beginning of the 1960s, pop and rock and roll trends of the 1950s continued; nevertheless, the rock and roll of the decade before started to merge into a more international, eclectic variant known as rock. In the early-1960s, rock and roll in its purest form was gradually overtaken by pop rock, beat, psychedelic rock, blues rock, and folk rock, which had grown in popularity.

1960s Iconic Groups

The Beatles were an English rock band formed in Liverpool in 1960. with a line-up comprising John Lennon, Paul McCartney, George Harrison and Ringo Starr, they are regarded as the most influential band of all time. The group were integral to the evolution of pop music into an art form and to the development of the counterculture of the 1960s.

The Rolling Stones are an English rock band formed in London in 1962. The first stable line up consisted of bandleader Brian Jones (guitar, harmonica, keyboards), Mick Jagger (lead vocals) Keith Richards (guitar, vocals), Bill Wyman (bass), Charlie Watts (drums) and Ian Steward (piano). The group were at the forefront of British invasion bands.

The who are an English rock band formed in London in 1964. Their classic line-up consisted of lead singer Roger Daltrey, guitarist and singer Pete Townshend, bass guitarist John Entwistle and drummer Keith Moon. They are considered one of the most influential rock bands of the 20th Century, selling over 100 million records worldwide.

GCSE PHOTOGRAPHY YEAR 1

IF YOU NEED HELP WITH YOUR WORK COMTACT MRS TURNER- TURNERP@PLYMPTON.ACADEMY

COURSEWORK UNIT 1

EXPLORING A RANGE OF LANDSCAPE AND ARCHITECTURAL PHOTOGRAPHY

INTRO TO PHOTOGRAPHY

KNOWLEDGE ORGANISER- YEAR 10

1	Mode dial	2	Release-mode selector	3	Information button
4	Exposure compensation button/Aperture button/Flash compensation button	5	Shutter-release button	6	Power switch
7	AF-assist illuminator/ Self-timer lamp/ Red-eye reduction lamp	8	Accessory shoe (for optional flash units)	9	Flash mode button/ Flash compensation button
10	Microphone	11	Function button	12	Lens release button
13	Playback button	14	Menu button	15	Thumbnail button/Playback zoom out button/Help button
16	Playback zoom in button	17	Information edit button	18	Viewfinder eyepiece
19	Diopter adjustment control	20	AE-L/AF-L button/Protect button	21	Command dial
22	Live View switch	23	Movie-record button	24	Multi selector
25	OK button	26	Delete button	27	Speaker
28	Monitor				

PHOTO COLLAGE

MEDIA EXPERIMENTS

VAN GOGH

FAY GODWIN

VICTORIA SIEMER

SANDRA MEECH

PAUL EIS

DON'T FORGET TO USE THE 10 RULES OF COMPOSITION

SKETCHBOOK PRIORITIES:

PRESENTATION- CLEAR EASY TO READ
SHOOTS- 30 OF YOUR OWN IMAGES, THE BEST 4 PRESENTED AND WRITTEN UP
CONTACT SHEETS- STUCK IN AND ANNOTATED
PHOTOGRAPHER STUDIES- ANNOTATED, PERSONAL LINKED TO METAMORPHOSIS
SHOOT PLANS- DETAILED AND WRITTEN IN FULL SENTENCES
IDEAS PAGES- CLEAR LINK TO PHOTOGRAPHERS AND PERSONALISED IDEAS
IMAGES- CUT WITH TRIMMER STRAIGHT EDGES, NEATLY GLUED IN
ANNOTATION-USE THE ANNOTATION WINDOW AND SENTENCE STARTERS TO HELP

MERVE OZSLAN

CHARLIE WAITE

USEFUL WEBSITES:

WWW.DAZEDDIGITAL.COM
WWW.TRENDLAND.COM
WWW.STUDENTARTGUIDE.COM
WWW.THISISCOLOSSAL.COM
WWW.ART2DAY.CO.UK

GCSE PHOTOGRAPHY YEAR 1

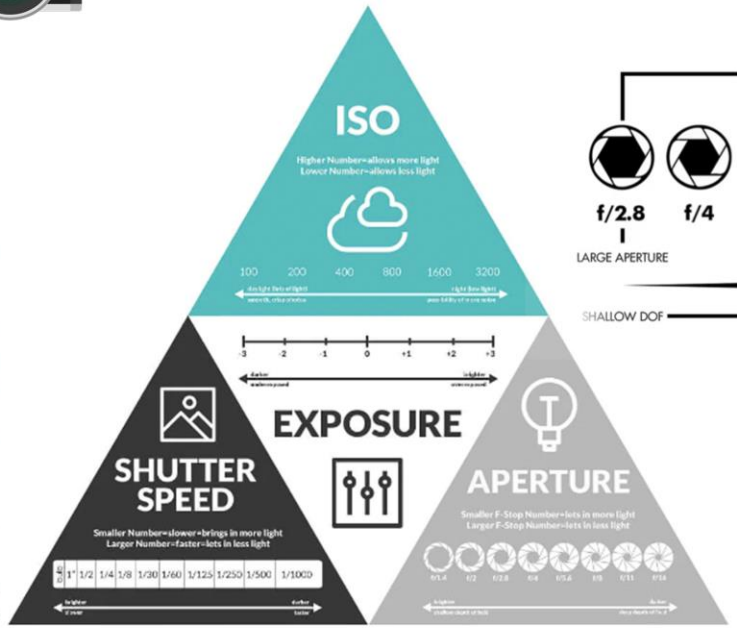
IF YOU NEED HELP WITH YOUR WORK CONTACT MRS TURNER- TURNERP@PLYMPTON.ACADEMY

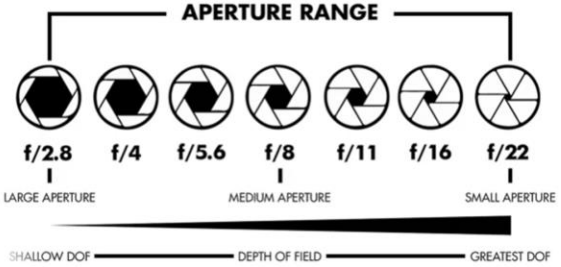
COURSEWORK UNIT 1

IDENTITY

START TO THINK ABOUT HOW YOU CAN REPRESENT YOUR IDENTITY. SAVE THINGS THAT INSPIRE YOU AND LINK THEM TO YOUR WORK.

KNOWLEDGE ORGANISER- YEAR 10





DON'T FORGET TO USE THE 10 RULES OF COMPOSITION

EMILY BLINCOE

VICTORIA SIEMER

DAVID BENOLIEL

CODY WILLIAM SMITH

HOMEWORK/ DEVELOPMENT TASKS:

- *COMPLETE AN ADDITIONAL IDENTITY SHOOT LINKED TO A NEW PHOTOGRAPHER INCLUDE CONTACT SHEETS AND YOUR 4 BEST IMAGES IN YOUR SKETCHBOOK.
- *PICK AN IMAGE FROM ONE OF THE NAMED PHOTOGRAPHERS AND PRACTICE YOUR ANNOTATION.
- *CREATE REVISION CARDS FOR THE PARTS OF THE CAMERA.
- *TAKE YOUR PHOTOGRAPHY BOOK HOME AND COMPLETE UNFINISHED TASKS.
- *FIND A NEW IDENTITY PHOTOGRAPHER AND CREATE A COLLAGE OF THEIR IMAGES.
- *MINDMAP IDEAS AND KEYWORDS FOR THE IMAGES ON THE KNOWLEDGE ORGANISER.

USEFUL WEBSITES:

WWW.DAZEDDIGITAL.COM
WWW.TRENDLAND.COM
WWW.STUDENTARTGUIDE.COM
WWW.THISISCOLOSSAL.COM
WWW.ART2DAY.CO.UK

1.Omnibenevolent- The state of being all loving and infinitely good.
Omnipotent- The all powerful, almighty & unlimited nature of God.
Trinity- The three persons of God: God the Father; God the Son & God the Holy Spirit.
The Word- term used at the beginning of John's gospel to refer to God the Son.
Incarnation- God becoming human in the form of Jesus.
Atonement- The belief that Jesus' death on the cross healed the rift between humans and God.
Salvation-saving the soul from sin for admission to heaven.
Resurrection- 1. Rising from the dead; 2.The belief that Jesus rose from the dead, on Easter Sunday, conquering death.
Blasphemy- a religious offence which includes claiming to be God.
Crucifixion- Roman method of execution by which criminals were fixed to a cross, used on Jesus.
Ascension- When Jesus rose to his father in heaven.
Original Sin-Augustine Christian doctrine (Roman Catholic), humans are born with urge to disobey God.
Grace- **Love and support g**iven by God; no need to earn it.

2.The Christian nature of God:-

Omnipotent

Many Old Testament stories are about the power of God. in Exodus is the story of the Plagues sent by God so that the Jews could escape from Egypt. This account shows that God was all powerful and in charge of nature. God's power is also shown in the creation story.

Omnibenevolent

Christians believe that God is all loving. "But you, Lord, are a compassionate and gracious God, slow to anger, abounding in love and faithfulness." Psalm 86:15 "For God so loved the world that he gave his one and only Son, that whoever believes in him shall not perish but have eternal life." John 3:16 - This expresses the fundamental belief that because God loved humanity, he sent Jesus to earth so that people could have eternal life.

The Trinity

Christians believe in the 'oneness of God'. However, they often speak of the Trinity - which is the belief that God is made up of three persons: The Father; The Son and the Holy Spirit.

The Father: the all-powerful; all-knowing part of God who created the world. It's the personal, caring relationship between humans and God.

The Son: Christians believe that Jesus is the Son of God. He is God in human form. This is known as the incarnation. God revealing himself to the world. ***'In the beginning was the Word, and the Word was with God, and the Word was God.'*** *John 1:1*

The Holy Spirit: Christians believe that this guides them to live their lives & offers comfort; courage; inspiration and guidance. It is also seen as God's presence in the world. ***'In the beginning...the Spirit of God was hovering over the waters. Ad God Said, "let there be light."***

What is Christianity and what do Christians believe? | GotQuestions.org

3. Christian Creation Story

Day 1: God created light and day
Day 2: God created the sea and the sky
Day 3: God created land and plants (trees; vegetation etc)
Day 4: God created the sun, moon and stars
Day 5: God created birds and fish
Day 6: God created living creatures including man.

Literal Interpretation:

Literal Christians believe that the world was made as described in the Bible, with each stage happening on a different day. Christians who accept this view tend to reject the scientific explanation of the Big Bang and the theory of evolution.

Liberal Interpretation:

Liberal Christians believe that whilst the story is symbolically true, it did not necessarily happen over 6 twenty-four-hour periods. Many liberal Christians see the term 'day' as representing a longer period, so the six days of creation could be millions of years. Liberal Christians can therefore accept that God started the Big Bang

4.Jesus' Resurrection (conquering death): Christians believe that Jesus was crucified on Good Friday outside of Jerusalem after requests by the Jewish leaders. A crown of thorns was placed on his head and a spear stuck into his side whilst on the cross. He was placed in a tomb, and on Sunday returned to his followers. Jesus' resurrection is fundamental to the Christian faith and is seen as the greatest miracle.

Religious Studies GCSE - Christian Beliefs

5. Crucifixion – Key points from the story of Jeus' crucifixion include:

- Although Jesus was fully God, he was also fully human and wasn't spared the pain of the crucifixion.
- Forgave the guards **'Forgive them father, they know not what they do.'** Luke 23:34
- Promised one criminal beside him that he would join him in paradise.
- At his death, a Roman centurion recognised him as a righteous man. **'Surely this man was the Son of God!'** Mark 15:39

Resurrection- For Christians, this event is proof that Jesus was the Son of God. Jesus' body was placed in the tomb late on Friday afternoon (Shabbat was about to start)as there was no time to anoint his body. On Sunday morning, Mary Magdeline and other female followers went to prepare the body and found the tomb was empty.

Ascension-40 days after his resurrection Jesus ascended to heaven. For Christians, this shows that Jesus is with God. In Mark and Luke, it is written that Jesus met with his disciples, asking them to carry on his work.

'He suffered under Pontius Pilate,
was crucified, died, and was buried.
He descended to the dead.
On the third day he rose again.
He ascended into heaven,
and is seated at the right hand of the Father.'
Apostles Creed

6. Genesis 2:

Adam lives in the Garden of Eden and God creates a companion (Eve) for him out of one of his ribs. They are given one rule: To not eat from the tree of kno

The Fall:

Adam and Eve are tempted by Satan disguised snake to eat from the tree of knowledge. The devil claims that the only reason God doesn't want them to eat it is that they would then have the same knowledge as God.

When God discovers their sin, they are ordered out of the Garden of Eden and can no longer eat from the tree of life, so death enters the world. This 'original sin', which all humans are born with, separates humans from God.

7.Salvation: The death of Jesus, on the cross, atoned for human sin and allowed them the hope of salvation. Catholics believe that taking part in the sacraments will bring them salvation whereas Protestants believe they must have faith in Jesus and repent of their sins. The Holy Spirit is sent by God to bring grace to help them pry and lead a good life. The Holy Spirit is also present during the sacraments.

Judgement: There will be a day of judgement when Jesus will return, human life on Earth will end (Parousia) and people will be judged on their actions (parable of the Sheep and the Goats and Lazarus and the Rich Man).

Resurrection: Upon death the soul will join God in heaven and there will be a resurrection of the body at the end of time. Whether people go to heaven, hell or purgatory (Catholic belief) depends on their actions in life.

8.The role of Christ in salvation:

Salvation means to be saved from sin and the consequences of it and be granted eternal life with God. Salvation can be achieved through:

- Good works- Having faith in God and obeying God's law, as shown in the Old Testament.
- **Grace**- given by God through faith in Jesus. It is not earned or deserved but it is a gift for the faithful.

Jesus' death makes up for the original sin committed by Adam and Eve. Humans can now receive forgiveness for their sins. This restoring of the relationship between people and God through the life, death and resurrection of Jesus is known as **atonement**.

'He is the atoning sacrifice for our sins, and not only for ours but also for the sins of the whole world.' 1 John 2:1

9.Incarnation (evidence of Jesus' divinity)

Jesus was not conceived through sexual intercourse. Mary (who was a virgin) was told by an angel that she would give birth to a child named Jesus.
'The Word became flesh and made his dwelling among us.'
This belief is important to Christians as it gives evidence that Jesus is God incarnate-made flesh in human form. Fully God yet fully human and thus God the Son as part of the Trinity. Christians refer to Jesus as Christ (anointed one) which is a translation of the Hebrew word *mashiach* (Messiah)

Key Words

Discrimination: Acts of treating groups of people, or individuals differently based on prejudice.

Human Rights: The basic entitlements of all human beings, afforded to them simply because they are human, for example an education.

Prejudice: Pre-judging / making a judgement about someone based on skin colour; age etc.

Relative Poverty: A standard of poverty measured in relation to the standards of a society in which a person lives, for example living on x% less of the average UK income.

Absolute Poverty: State of deprivation, where a person cannot access the most basic of their human needs.

Social Justice: Promoting a fairy society by challenging injustice and valuing diversity - ensuring that everyone has equal access to provisions/opportunities https://www.youtube.com/watch?v=pRGhrYmUjU4

Religious Expression: For Christians it is important to tell others about their faith through missionaries or evangelism.

Equality- the state of being equal, especially in status, rights, and opportunities.

Tithe- one tenth of annual produce or earnings (Christian)

Exploitation-misuse of power or money to get others to do things for little or no reward.

Human Trafficking-illegal movement of people.

Human Rights

-Human Rights are universal moral rights that always apply to all people, in all situations regardless of race, gender, religion, physical ability etc. -The 1948 Universal Declaration of Human Rights, which contained 30 articles, are based on the first one ***'All human beings are born free and equal in dignity and rights'***

⚖ Social Justice -Is promoting a fair society by challenging injustice and valuing diversity and ensuring that everyone has equal access to provisions, equal opportunities and rights. It often involves governments and agencies working together.

Martin Luther King -
Campaigned against segregation in the USA using non-violent methods. Due to Christian beliefs, he saw everyone as equal in the eyes of God & should be treated as such. He led the Montgomery Bus Boycott; sit-ins; peaceful demonstrations and the March on Washington where he made the 'I had a dream' speech. https://www.youtube.com/watch?v=_IB0i6bJIjw

Gender prejudice and discrimination
People can often be discriminated against because of their gender. This is called sexism. Traditionally, there are roles for men and roles for women in society and within religion. However, these have not been equal roles with equal opportunity, Religions would argue that the roles are equal but different. In society in the last 100 years the role of women has changes. There are far more women in top jobs, in male-dominated sports, in politics and in the armed forces. However, in terms of leadership of religion, most still are male dominated.

Hinduism-is open to all other faiths. Rabindranath Tagore, once likened religions to **'different paths to the top of the same mountain.'** Hinduism does not agree with trying to convert others. It is also true that some practices of non-Hindus are seen as impure, for example, eating beef, which makes some from the Brahmin caste treat non-Hindus as inferiors. In India, Muslims have complained that the Hindu based legal system discriminates against them, making them feel threatened.

Prejudice Hindu Dharma is that Brahma is found in everything, so therefore any prejudiced thoughts or discriminative acts would be viewed as wrong.

- Hindus believe in non-violence (ahimsa) love and respect for all things
- Compassion is a key belief with the desire to improve things for others, not persecute them
- Hurting others can lead to bad karma which affects future reincarnations
- Hindus believe that the true self is the atman and as everyone has one, that must mean that everyone is e
- The Bhagavad Gita suggests that to reach liberation then you should work for the welfare of all fellow human beings

Poverty it is important to create wealth (artha) to provide or their family and maintain society. Rich devotees should not hoard wealth but use it in stewardship roles. Excess wealth can can lead to overindulgence and materialistic rather than spiritual living. Money causes pain when earned, it causes pain to keep it and it causes pain to lose as well as to spend (Panchatantra) Happiness arises from contentment, uncontrolled pursuit of wealth will result in unhappiness (Manu) Act in the world as a servant, look after everyone and act as if everything belongs to you, but know in your heart that nothing is yours – you are the guardian, the servant of God. Hindus believe that life is all about good deeds here and now. This not only helps the receiver, but it helps the giver's own rebirth. by helping those in poverty, they can improve their own karma and rebirth **'it is the same God shining out through so many different eyes,'**

Religious Studies GCSE - Human Rights

Sexuality- Traditionally in the UK society expects men and women to be couples. Homosexuals often suffer homophobia because people do not agree with the relationships they have. It is often difficult to tell families (who may themselves be unsupportive or even homophobic) and as a result there is little support available. For religious people who are gay, there are also fears of how their community might respond, and it may be the case that their religion forbids homosexuality. Also, many religions do not agree with these relationship, although they do agree that people should not be discriminated against. For religion, a key role of sex is to accept God's blessing of children, and same-sex couples cannot do this naturally and in holy books there are teachings against homosexuality.

Disability By law, a disability is a long-term issue which has a significant impact on the day-to-day life of the person with the disability, so that they cannot do (some) things as normal. People with a disability are often denied access to places, e.g., school or public buildings. Religion believes that all people are equal, and God creates people in many ways. We are all valued despite
our differences. Discrimination is totally wrong where disability is concerned and is also illegal.

Wealth and Poverty

People require the same basic needs:
Food
Water
Clothing
Shelter

1 in 9 suffers from chronic hunger, 100 million are homeless, 2000 people die per day due to unclean water.

Christianity- ' If anyone has material possessions and sees his brother in need, how can the love of God be in him?' (1 John 3:17) 'If a brother has no clothes or food what good is it to wish him well without caring for his physical needs?' (James 2:15)

Discrimination

There are laws in the UK to deal with discrimination. As prejudice is about the way people think, the law cannot do anything, but when that prejudice turns into discriminative actions, then the law can act. However, discrimination is not always easy to prove. The **1976 Race Relations Act** (RRA) made it illegal to discriminate against anyone because of race, nationality, ethical or national background in four main areas: jobs, education, housing and the provision of services; to use threatening or abusive language regarding race. It also made it illegal to publish anything to stir up racial hatred.

There have also been laws passed about **Equal Pay (1975), Sex Discrimination (1975). Disability Discrimination Act (1995) and the Sexual Orientation Regulation (2007)**. All these Acts have been superseded by the Equality Act (2010).

Christianity-Many Christians believe that the only way to salvation (earn a place in heaven) is through belief in Jesus. This excludes all other religions and is the main reason why Christianity has always been a missionary religion; trying to convert others. Some believe that if a person leads a morally good life, then they too can earn salvation, which opens the door to accept all other faiths, given their key principles fit with Christianity's. Whatever the belief about who can and cannot go to heaven, it is important to treat everyone with equanimity and kindness, so Christians should not be involved in any form of religious discrimination.

Christianity believes that all forms of discrimination are wrong.

- God created everyone equally (Old Testament)
- There is neither Jew nor Gentile, slave nor free, male or female. We are all equal in Christ (Galatians)
- So, in everything, do unto others what you would have done to you (Matthew 7:12)
- Jesus told us to love our neighbour (Sermon on the Mount) o In the Good Samaritan story, the man is helped because of his need, not because of who he was or was not (in fact, the victim and helper were enemy nations)

Christians believe that there is nothing wrong with wealth itself; it is how we use it that matters. We can use it for good and bad. Wealth is seen as a gift from God. Our money should come from lawful means. In the Bible there is the warning that the wrong attitude for money could lead people away from God. **'For the love of money is the roots of all kinds of evil. Some people, eager for money, have wandered from the faith and pierced themselves with many griefs'** (1 Timothy 6:10) No one can serve two masters - you cannot serve both money and God Be on your guard against all kinds of greed: a man's life does not consist in the abundance of his possessions (Luke 12:15)

OPINION	NOUN	CONNECTIVE	REASON 1	CONNECTIVE	REASON 2
En mi colegio estudio… *(At school I study…)* **Mi asignatura favorita es** *(my favourite subject is)* **Me chifla** *(I'm crazy about)* **Me da igual** *(I don't care about)* **No me gusta** *(I don't like)* **No soporto** *(I can't stand)* **Odio** *(I hate)*	**el dibujo** *(art)* **el diseño** *(design)* **el español** *(Spanish)* **el francés** *(French)* **el inglés** *(English)* **el teatro** *(drama)* **la cocina** *(catering)* **la geografía** *(geography)* **la historia** *(history)* **la informática** *(computing)* **la música** *(music)*	**porque** *(because)* **ya que** *(since)* **dado que** *(given that)* **pero** *(but)* **aunque** *(although)* **sin embargo** *(however)* **NO SOLO** *(NOT ONLY)*	**es interesante** *(it's interesting)* **es útil para el futuro** *(it's useful for the future)* **es fácil** *(it's easy)* **se me da bien** *(I'm good at it)* **saco buenas notas** *(I get good grades)* **es demasiado difícil** *(it's too hard)* **se me da mal** *(I'm bad at it)* **no es útil** *(it's not useful)*	**y** (and) **y también** (and also) **SINO** *(BUT) ONLY USE WITH 'NO SOLO'*	**aprendo mucho en clase** *(I learn a lot in class)* **me gusta el profesor.** *(I like the teacher - male)* **me gusta la profesora.** *(I like the teacher -female)* **tengo amigos en clase.** *(I have friends in class)* **no aprendo nada en clase.** *(I don't learn anything in class)* **no aguanto al profesor.** *(I can't bear the teacher – m.)* **no aguanto a la profesora.** *(I can't bear the teacher – f.)*
Mis asignaturas favoritas son *(my favourite subjects are)* **Me encanta<u>n</u>** *(I love)* **Me gusta<u>n</u>** *(I like)* **Me da<u>n</u> igual** *(I don't care about)* **No me gusta<u>n</u>** *(I don't like)* **Odio** *(I hate)*	**los idiomas** *(languages)* **las empresariales** *(business studies)* **las ciencias** *(science)* **las matemáticas** *(maths)*		**son divertid<u>os/as</u>** *(they are fun)* **son interesantes** *(they are interesting)* **son útiles para el futuro** *(they are useful for the future)* **son fáciles** *(they are easy)* **se me dan bien** *(I'm good at them)* **son demasiado difíciles** *(they are too hard)* **son aburrid<u>os/as</u>** *(they are boring)* **se me dan mal** *(I'm bad at them)*		

SPANISH

TIME PHRASE	OPINION	NOUN	CONNECTIVE	REASON
Ahora *(Now)* **Hoy en día** *(Nowadays)* **Actualmente** *(Currently)*	**mi profesor(a) favorito/a es el/la de…** *(my favourite teacher is the … one)* **me encanta mi profesor(a) de…** *(I love my ... teacher)* **me gusta mi profesor(a) de…** *(I like my ... teacher)* **prefiero a mi profesor(a) de...** *(I prefer my ... teacher)*	**dibujo** *(art)* **diseño** *(design)* **español** *(Spanish)* **francés** *(French)* **inglés** *(English)* **teatro** *(drama)* **cocina** *(catering)* **geografía** *(geography)* **historia** *(history)* **informática** *(computing)* **música** *(music)* **idiomas** *(languages)* **empresariales** *(business studies)* **ciencias** *(science)* **matemáticas** *(maths)*	**porque** *(because)* **ya que** *(since)* **dado que** *(given that)*	**es divertido/a.** *(s/he is fun)* **es gracioso/a.** *(s/he is funny)* **es simpático/a.** *(s/he is kind)* **me ayuda mucho.** *(s/he helps me a lot)* **explica las cosas muy bien.** *(s/he explains things very well)* **nos hace reír.** *(s/he makes us laugh)* **aprendo mucho en la clase.** *(I learn a lot in the class)* **le apasiona su asignatura.** *(s/he is passionate about his/her subject)*
	odio a mi profesor(a) de… *(I hate my ... teacher)* **mi peor profesor(a) es el/la de…** *(My worst teacher is the … one)* **no me gusta nada mi profesor(a) de…** *(I don't like my ... teacher at all)* **no soporto a mi profesor(a) de...** *(I can't stand my ... teacher)* **… y tampoco me gusta mi profe de…** *(... and I don't like my … teacher either)*			**es aburrido/a.** *(s/he is boring)* **es pesado/a.** *(s/he is annoying)* **es antipático/a.** *(s/he is mean)* **explica las cosas muy mal.** *(s/he explains things very badly)* **no aprendo nada en la clase.** *(I learn nothing in the class)* **no le gustan los niños** *(s/he doesn't like kids)* **nos da demasiados deberes.** *(s/he gives us too much homework)* **nunca me ayuda.** *(s/he never helps me)*
Antes *(before)* **Hace unos años** *(a few years ago)*	**me encantaba mi profesor(a) de…** *(I loved my ... teacher)* **me gustaba mi profesor(a) de…** *(I liked my ... teacher)* **odiaba a mi profesor(a) de…** *(I hated my ... teacher)*			**era divertido/a.** *(s/he was fun)* **era pesado/a.** *(s/he was annoying)* **me ayudaba.** *(s/he helped me)* **aprendía mucho/nada en la clase.** *(I learned a lot/nothing in the class)*

¿Qué hay en tu insti? *(What is there in your school?)*

VERB	NOUN	CONNECTIVE	VERB	COMPARATIVE	REASON	CONNECTIVE	NOUN
En mi cole hay *(In my school there is/are)* **En mi insti hay** *(In my school there is/are)* **Mi cole tiene** *(My school has)* **Mi insti tiene** *(My school has)*	**un patio** *(a playground)* **un gimnasio** *(a gym)* **un comedor** *(a canteen)* **un campo de deportes** *(a sports field)* **una sala de informática** *(a computer suite)*	**que** *(that)*	**es** *(is)* **son** *(are)*	**más** *(more)* **menos** *(less)*	**grande** *(big)* **impresionante** *(impressive)* **pequeño/a** *(small)* **antiguo/a** *(old)* **moderno/a** *(modern)* **ruidoso/a** *(noisy)* **tranquilo/a** *(quiet)* **limpio/a** *(clean)* **sucio/a** *(dirty)*	**que** *(than)*	**el patio.** *(the playground)* **el gimnasio.** *(the gym)* **el comedor.** *(the canteen)* **el campo de deportes.** *(the sports field)* **la sala de informática.** *(the computer suite)*
Antes había *(Before there was / were)* **Antes tenía** *(Before it had)*	**unos laboratorios** *(some science labs)* **muchos pasillos** *(lots of corridors)* **muchas aulas** *(lots of classrooms)*	**pero** *(but)*	**era** *(was)* **eran** *(were)*	**tan** *(as)*	**grandes** *(big)* **impresionantes** *(impressive)* **pequeños/as** *(small)* **antiguos/as** *(old)* **modernos/as** *(modern)* **ruidosos/as** *(noisy)* **tranquilos/as** *(quiet)* **limpios/as** *(clean)* **sucios/as** *(dirty)*	**como** *(as)*	**los laboratorios.** *(the science labs)* **los pasillos.** *(the corridors)* **las aulas.** *(the classrooms)*

¿Cómo es tu día escolar? *(What is your school day like?)*

VERB	TIME	CONNECTIVE	VERB	NOUN	TIME	SEQUENCER	NOUN
Llego al insti *(I arrive to school)* **Las clases empiezan** *(Lessons start)*	**a las ocho en punto** *(at eight o'clock)* **a las ocho y diez** *(at ten past eight)* **a las ocho y cuarto** *(at quarter past eight)* **a las ocho y veinte** *(at twenty past eight)* **a las ocho y media** *(at half past eight)* **a las nueve menos veinte** *(at twenty to nine)*	**y** *(and)* **luego** *(then)*	**tengo** *(I have)* **tenemos** *(we have)*	**el recreo** *(break)* **la comida** *(lunch)*	**a las once en punto.** *(at eleven o'clock)* **a las once y cuarto.** *(at quarter past eleven)* **a las doce menos veinte.** *(at twenty to twelve)* **a las doce y media.** *(at half past twelve)* **a la una menos cuarto.** *(at quarter to one)* **a la una.** *(at one)* **a las tres en punto.** *(at three o'clock)*	**Después de clase hay** *(After lessons there is/are)*	**ayuda con deberes.** *(help with homework)* **actividades deportivas** *(sports activities)* **clases de repaso.** *(revision lessons)* **clubs extraescolares.** *(extra-curricular clubs)* **ensayos.** *(rehearsals)* **partidos de deporte.** *(sports matches)* **prática de música.** *(music practice)*
			terminan las clases *(lessons end)*				

¿Cómo es tu uniforme? *(What is your uniforme like?)*

VERB		NOUN	ADJECTIVE	CONN'VE	NOUN	OPINION	REASON
Llevo *(I wear)*		**un jersey** *(a jumper)* **un vestido** *(a dress)* **una camisa** *(a shirt)* **una chaqueta** *(a blazer)* **una corbata** *(a tie)* **una falda** *(a skirt)*	**negro/a** *(black)* **blanco/a** *(white)* **rojo/a** *(red)* **amarillo/a** *(yellow)* **morado/a** *(purple)* **verde** *(green)* **azul** *(blue)* **gris** *(grey*	**con** *(with)* **y** *(and)*	**un jersey.** **un vestido.** **una camisa.** **una chaqueta.** **una corbata.** **una falda.**	**Me chifla mi uniforme** *(I'm crazy about my uniform)* **Me gusta mi uniforme** *(I like my uniform)* **Odio mi uniforme** *(I hate my uniform)* **No soporto mi uniforme** *(I can't stand my uniform)*	**porque es muy elegante.** *(because it's very smart)* **porque es cómodo.** *(because it's comfortable)* **porque es feísimo.** *(because it's really ugly)* **porque es demasiado incómodo.** *(because it's too uncomfy)*
Tengo que *(I have to)* **Tenemos que llevar** *(We have to)* **Hay que llevar** *(You have to)* **Se debe llevar** *(You must)*	**llevar** *(wear)*	**calcetines** *(socks)* **pantalones** *(trousers)* **zapatos** *(shoes)*	**negros** **blancos** **rojos** **amarillos** **morados** **verdes** **azules** **grises**		**calcetines.** **pantalones.** **zapatos.**	**Personalmente, pienso que** *(Personally, I think that)* **Personalmente, diría que** *(Personally, I'd say that)* **Desde mi punto de vista,** *(From my point of view)*	**es muy elegante.** *(it's very smart)* **es cómodo.** *(it's comfortable)* **es feísimo.** *(it's really ugly)* **es demasiado incómodo.** *(it's too uncomfy)*

¿Qué vas a hacer el año que viene? *(What are you going to do next year?)*

VERB	INFINITIVE PHRASE	CONN'VE	VERB	INFINITIVE PHRASE	FUTURE VERB	ADJECTIVE
Voy a *(I'm going)* **Quiero** *(I want)* **Me gustaría** *(I'd like)* **Espero** *(I hope)*	**buscar trabajo** *(to look for work)* **encontrar un aprendizaje** *(to find an apprenticeship)* **seguir estudiando** *(to continue studying)*	**como** *(as)* **porque** *because)*	**me gusta** *(I like)* **me interesa** *(I'm interested in)* **necesito** *(I need)* **quiero** *(I want)*	**estudiar.** *(to study)* **aprobar mis exámenes.** *(to pass my exams)* **hacer algo diferente.** *(to do something different)* **ir a la universidad.** *(to go to university)* **ganar dinero.** *(to earn money)*	**Será** *(It will be)* **Va a ser** *(It's going to be)*	**difícil.** *(difficult)* **divertido.** *(fun)* **emocionante.** *(exciting)* **estupendo.** *(wonderful)* **flipante.** *(awesome)* **guay.** *(cool)* **muy distinto.** *(very different)* **un reto.** *(a challenge)*

CONJUNCTION	PRESENT CLAUSE	FUTURE CLAUSE
Si *(If)*	**apruebo mis exámenes,** *(I pass my exams)* **encuentro un aprendizaje,** *(I find an apprenticeship)* **saco buenas notas,** *(I get good grades)* **suspendo mis exámenes,** *(I fail my exams)*	**dejaré el instituto.** *(I will leave school)* **buscaré trabajo.** *(I will look for work)* **me quedaré en el instituto.** *(I will stay in school)* **repasaré mis apuntes.** *(I will revise my notes)* **seguiré estudiando.** *(I will continue studying)*

PHYSICAL EDUCATION - THE BENEFITS OF PE

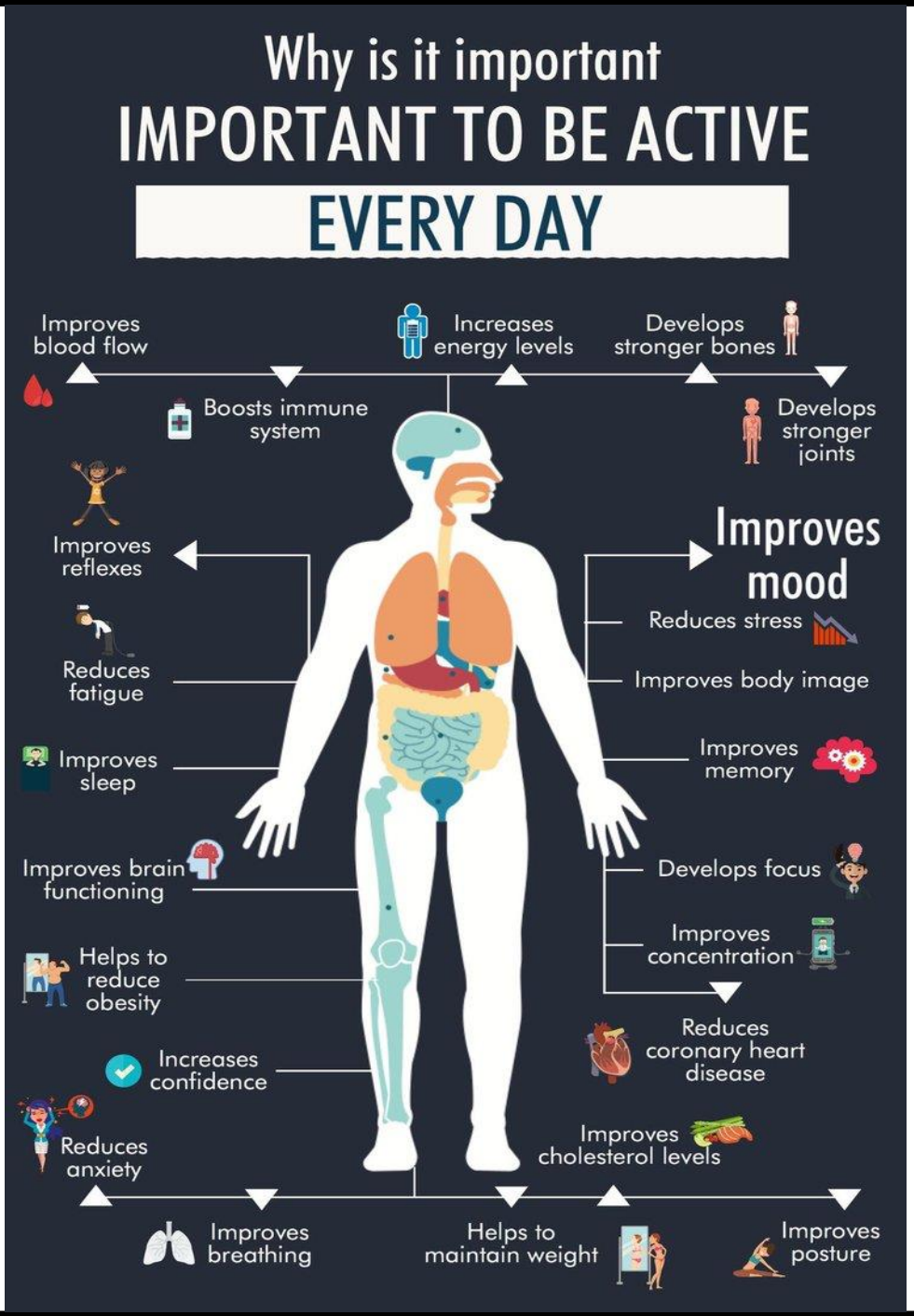
Knowing & Understanding the benefits of PE

In PE at Plympton Academy, you are assessed in three key areas: Skills, Knowledge and Character.

Skills	Knowledge	Character
- Physical skills/ techniques - E.g. - Run. throw, jump, catch, kick,	- Understanding how to perform the skills. - Decision making skills - Understanding the rules of the sports - Awareness/ understanding of tactics/ strategies	- Ability to co-operate and communicate with others. - Showing understanding, empathy, respect, sportsmanship and integrity when competing. - Demonstrating determination/ resilience

We also look at setting ourselves personal targets and goals in PE, here are some of the reasons why:

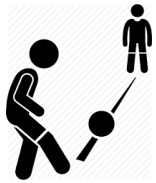
- Targets give us something to work towards and aim for.
- Targets allow us to reflect on our skills and evaluate our performance.
- Targets can help to motivate us to improve.
- Targets can be used to help us to measure our progress.



PHYSICAL EDUCATION - WARM UPS/ COOL DOWNS/ IMMEDIATE EFFECTS OF EXERCISE

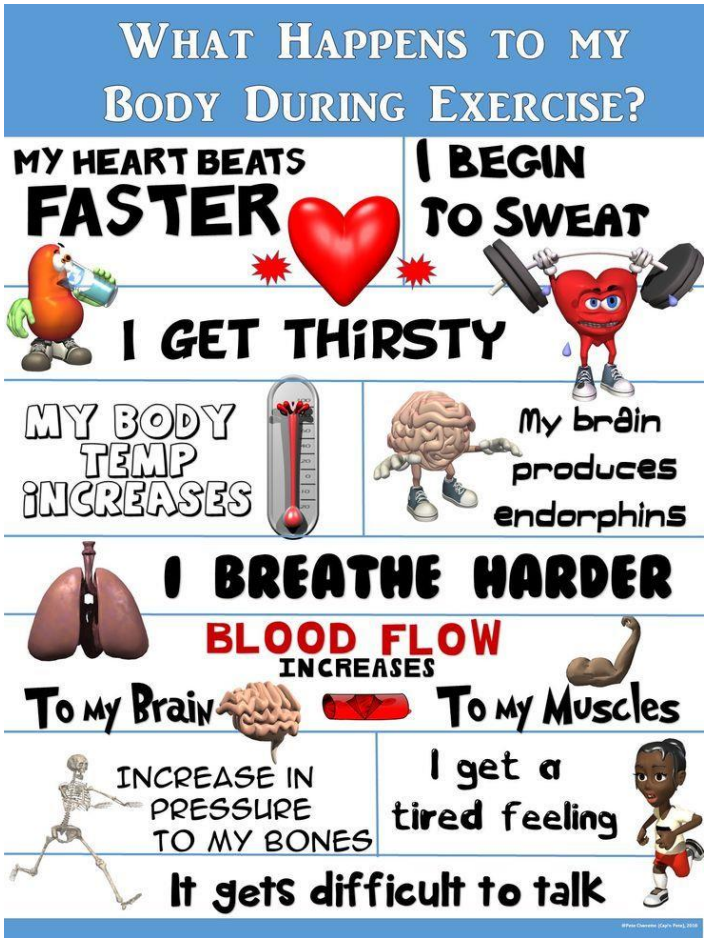
A **warm up** should be completed before taking part in exercise/ sport and is important as it physically and mentally prepares a person for exercise. A **cool down** should be completed at the end of the session and helps to return the body to its normal resting state.

The 3 phases of a warm up

1) Pulse raiser	2) Dynamic stretching	3) Skill based activity
This is the first part of a warm up. It involves running/ jogging around an area and can be in the form of a game (e.g. stuck in the mud). A pulse raiser increases the heart rate and blood flow to the working muscles; increases the breathing rate and body temperature.	This is the second part of the warm up. This involves performing stretches whilst moving. It increases the range of movement at the joints; keeps the heart rate and body temperature elevated; and can help to reduce the risks of injuries.	This is the third part of the warm up. This involves using some sport specific equipment and performing similar movements which are required in a game. A skill based activity physically and mentally prepares the participants for the demands of the main activity. 

Cool down

A cool down is important as it lowers the body temperature; heart rate; breathing rate and returns the body to its normal resting state. A cool down involves performing static stretches which can help to remove lactic acid; reduce muscle soreness the following day and reduce the risk of injury. Static stretches should be held for 8 - 12 seconds.



Protective equipment

Learning aim B: Task 2

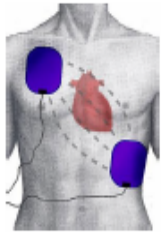
Protective equipment category	What injuries/hazards does the equipment protect against?	Sport/physical activity/outdoor activity its used in.
Goggles	Used to protect the eyes from weather conditions, water and projectiles. In skiing googles protect your eyes from snow blindness.	Skiing Snowbaording Swimming Shooting
Mouth Guard	Mouth guards typically cover the upper front teeth, and are designed to protect against broken teeth which can lead to, cut lips and other damage to your mouth.	Boxing Rugby Basketball
Floatation device	A personal flotation device (PFD) is something you wear that will keep you afloat should you enter the water. It will reduce your chance of drowning.	Open water swimming Sailing Canoing Sailing Kayaking Paddle boarding
Helmets	Helmets absorb, dissipate, and reduce impact forces to an athlete's head and brain during collisions between players or a fall to the ground.	American football Rock climbing Canoing Ice Hockey Racing driving Skiing Cricket
Body protection	Contact sports always put stress on your body, all body armour is designed to minimise the impacts of regular contact training on your body. The main function of shin pads is to protect the soft tissues and bones in the lower extremities from external impact. Shin guards provide shock absorption and facilitate energy dissipation, thereby decreasing the risk of serious injuries.	Rugby Cricket Horseriding Football

First aid

Defribrillator: A defibrillator is a **device that gives a high energy electric shock to the heart of someone who is in cardiac arrest.**

It is automated and takes the user through the process step by step.
Where for find them?

- Schools
- Leisure centres
- Train stations
- Work offices
- Public spaces



First aid kit:

It's important to have a well-stocked first aid kit in your home **so you can deal with minor accidents and injuries**.

Some items you may find in a first aid kit:

- Scissors
- Plasters
- Bangages
- Eye wash
- Tweezers
- Burn gel
- Ice packs

Officials

Officials: All sports will have some form of official, that might be a; referee, judge or umpire.

Some of the equipment they will need is:

- Whistle
- Earpiece
- Watch
- Microphone
- Disciplinary cards
- Note pad

Officiating technology

VAR: video assistant referee, is used in football to check decisions made by the officials, such as penalties, offsides and fouls.

Pros:

- Better decision making
- Player discipline
- Avoid controversial decisions

Cons:

- Time wastage
- Decisions can still be wrong
- Only used at top level games

Hawkeye: Is used in tennis and cricket, it used 10 cameras to predict where the ball will land.

Pros:

- Better decision making
- Descision made on under 10 seconds

Cons:

- Accurate to 5mm so there are still errors
- Only used at top level games

Goal line technology: Uses the same technology as Hawkeye, 14 high speed ameras are used to detect if the ball has fully crossed the goal line or not. The referee is notified through a watch on his wrist. It will vibrate for 10 seconds if a goal is scored.
Pros: Accurate decisions.
Cons: 5mm error margin, costly & only used in the top leagues.

Sports facilities

Sportshalls: A number of sports can be played in a sports hall, there will be court markings for different sports.
For example:

- Volleyball
- Basketball
- Handball
- Netball

Pros:
Can rent a hall easily in the public sector.
Cons:
It can be expensive and might not be available when you need it.

Indoor climbing wall: A climbing wall is an artificially constructed wall with grips for hands and feet. It replicates the experience of outdoor climbing in a more accessible environment. Climbing walls are usually found in the private sector.

Pros:
More affordable and you can rent equipment.
Cons:
High risk activity, expensive equipment if you buy your own, it can be repetitive. You may have to travel far as there are not that many indoor walls.

Dry Ski slopes: A dry ski slope or artificial ski slope is a ski slope that mimics the attributes of snow using materials that are stable at room temperature. They are found in the private sector.

Pros:
Cheaper, can do it in any conditions, you can hire equipment.
Cons:
It's not the same as snow, they can be far away and there aren't very many of them.

4G pitches: All weather pitches used for football and rugby. They have artificial grass and a rubber layer to help replicate the bounce of a grass surface.

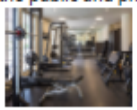
Pros: Can be used in all weather conditions, they can be rented in the public sector.

Cons: Injuries e.g. skin burns and joint injuries due to the impact. They can be expenive to rent.

Swimming pool: Can be used for fitness swimming or fun, you can play water polo and in some pools have a go at diving. They can be found in the public and private sector.

Pros: Accessible to all at a local leisure cente, lower prices in the public sector.
Cons: They have a timetable which means they may not be available when you need it.

Gym: Fitness centres and gyms will have a number of cardiovascular and weight machines to suit your fitness needs. They are found in the public and private sector.



Pros: A variety of equipment, in the public sector the membership will be more affordable or pay as you go. The equipment in the private gyms will be state of the art.
Cons:
Private gyms are more expensive and require membership fees. Equipment in public gyms may not be the newest.

Footwear

Hiking boots: High sides to support ankles, waterproof, thick firm soles to provide grip on rocky terrain.

Football boots: Studs to reduce the chance of slipping.

Basketball trainers: High sides to reduce chance of rolling an ankle, rubber soles with grip to reduce the chance of slipping.

Running trainers: Cushioned to reduce impact on the joints and gripped soles.

Clothing

Warm gear: Feather weight fabric utilizes moisture transportation, which wicks sweat away from the wearer's body and filters it through the material, where it is then evaporated. This keeps athletes cool and dry in hot conditions.
Cold gear: In cold conditions the body loses 4-5% in performance. Cold gear is specially designed to help keep you warm; Light weight, soft brushed interior, 4 way stretch to stop it riding up and it traps air to keep you warm. They also have quick dry fabric so sweat can evaporate quickly to prevent chill.

Aerodynamic: Mainly used in cycling, tight speicalist fabrics like lycra cling to your skin to reduce drag. Wearing lycra when cycling makes your 2km per hour quicker! They also wick sweat away to keep you warm and dry.

Waterproof jackets: Waterproof materials mean that water will bead up and roll off, this is because the fibres are so close together that the water in unable to penetrate it. Hikers will always have a waterproof jacket with them! It will keep them dry and protect them from the elements.

Compression

Compression clothing: Tight fitting clothing that has many benefits:

- raises the temperature of the skin and tissues to increase blood flow and promote healing.
- Reduces muscle vibration that can cause muscles to burn energy and cause fatigue
- support the body and reduce the chance of injury

Adaptive equipment

Sports wheelchairs: Cambered wheels to improve a player's turning circle and stability in performing sharp turns. The addition of rear caster wheels to stop athletes from falling out backwards and carbon fibre spokes to increase the strength of their wheels.

Pros: They are light weight and move easily.
Cons: Expensive and need to be specially made.

Cheetah blade: A running blade used to assist people with amputations. They make it easier for people to take part in sports or physical activities.
Pros: Blades are tailor made for each individual.
Cons: They are expensive and you may have to travel far to get fitted for one.

Smart watches

Smart watches: a wearable computing device that closely resembles a wristwatch or other time-keeping device. They track a number of things that can help to improve your health and fitness. E.g. iwatch, garmin & fitbit.
Advantages:

- Track heart rate
- Calories
- Activity
- GPS and many more features!

Disadvantages:

- Cost, it can be expensive
- Tracking is inacurate

GPS

GPS: Global Positioning System. Athletes wear GPS trackers when they train and play. They give them data on their distances, speeds and area covered.
Advantages:

- Reduce the chance of injury
- Help you improve

Disadvantages:

- Cost, it can be expensive
- It doesn't track touches on the ball
- Unreliable when used inside

Hearing impairment: Radio aids help reduce the impact of background noise. The coach or instructor wears a transmitter and the participant wears the receiver.

Visual impairment: Adapted equipment can be used e.g. bells inside balls, brightly coloured balls or larger balls.

Pulse Raiser

Pulse raiser: This is a gradual increase in heart rate. To elevate the heart rate so it matches the intensity of the exercise about to be undertaken.

How long: 3-5 minutes

Example activities:

- Jogging
- Skipping
- Star jumps
- Side steps
- High knees
- Spotty dogs

Musculoskeletal Responses to a pulse raiser

The musculoskeletal system is the interaction of the **muscles, bones** and **connective tissues** (tendons and ligaments)

1. **Increased muscle temperature** – muscle contractions create movement and several by-products, one of which is heat.
2. **Increased pliability of muscles** – When the muscles and ligaments/tendons are warm they can stretch further. This will make movements much easier when you are playing sports.
3. **Reduced risk of muscle strain** – the chances of injury are reduced when a pulse raiser is carried out. This is because your muscles are able to move and stretch further as they are warm.

Cardiorespiratory

Musculoskeletal

Learning aim C: Task 3

Body's response to a pulse raiser

Cardiorespiraroty Responses to a pulse raiser

1. **Increased heart rate** – this is a response to the oxygen demand at muscle sites. The muscles need oxygen to help break down energy to produce movement. The more movement a person does the more oxygenated blood they will need.
2. **Increased blood flow to muscles** – blood is re-directed to areas of need. *i.e. working muscles. If a person starts to jog the muscles in the lower body will need to contract more often and with more force. To do this the muscles will need more oxygenated blood.*

3. Increased breathing rate – This is a bodily response to the lack of oxygen at tissue sites. Breathing rate will go up to cope with the demand for more oxygen.

4. Increased depth of breathing – this aids a faster removal of waste products. With each breath you will be able to breath out more carbon dioxide.

5. Increased removal of carbon dioxide – this is the waste product of respiration.

Cardiorespiraroty & Musculoskeletal Responses to stretching

Response of **cardio-respiratory system**:

- **Static stretches** - Further drop in heart rate and breathing rate due to stillness when performing the stretches.
- **Dynamic Stretches** - Maintained elevated heart rate and breathing rate as this involved active movements.

Response of **musculo-skeletal system**:

Extends the muscle beyond a normal state to reduce the risk of a tear during the sport or activity session.

Mobilsers

Mobilsers: These are exercises that take the joint through their range of movement. The movements will start small and progressively get bigger as you warm up.

Example activities:

- Wrist circles
- Shoulder rolls
- Lunges
- Open and close gates at the hips
- Ankle circles
- Hip rotation

The bodys response to mobilsers:

1. **Slight drop in Heart Rate** – As exercise intensity reduces heart rate will falls to reflect this.
2. **Slight drop in breathing rate** – The rate of breathing will fall by at least a 50% reduction.

3. **Increased Synovial fulid** - Mobiliser actions will **increase production of synovial fluid** in the joints to increase **lubrication** of the area. This will increase the range of movement possible.

Preparation stretches

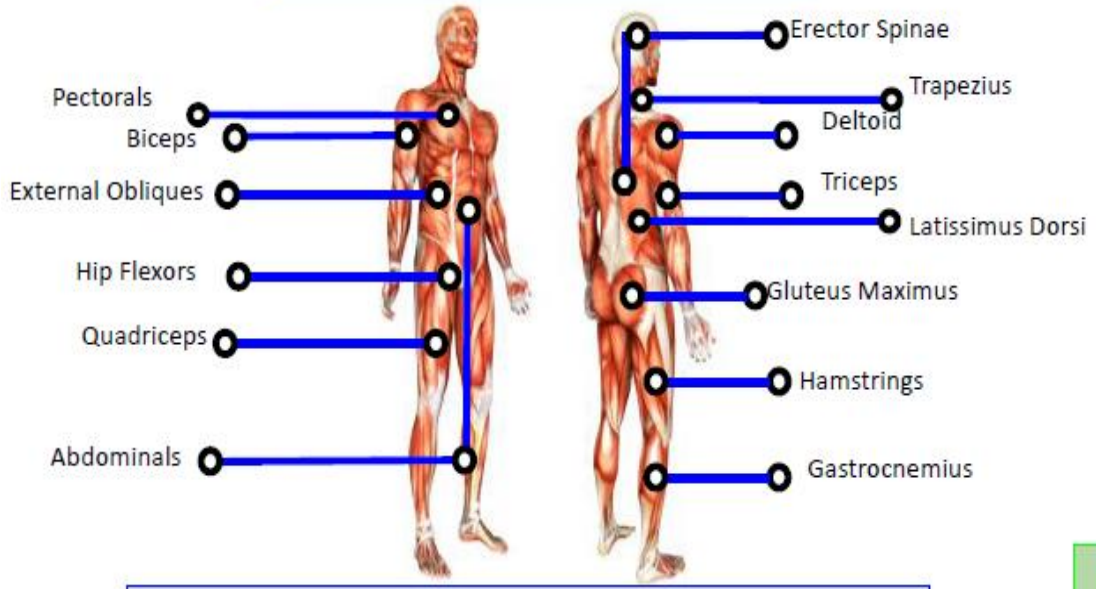
Preparation stretches: These are completed once the muscles are warm. The stretches picked should target the muscles that will be used in your chosen activity.

How long: Hold each stretch for 10-15 seconds and can be repeated

Static stretch: when a person holds a position for a short period of time.

Dynamic stretch: when a person carries out a stretch on the move.

Muscular system



Example stretches

Obliques: Dynamic stretch

Deltoids: Static stretch

Bicep & Tricep: Static stretch

Erector Spinae: Static stretch

Hip Flexors: Dynamic Stretch

Gluteus Maximus: Static stretch

Quadricep: Static Stretch

Hamstrings: Static stretch

Gastrocnemius: Static stretch

Adapting warm ups

Adapting:

It may be necessary to adapt your planned warm up to suit the participants needs. Warm ups can be adapted in a number of ways:

- **Intensity** of the activity (moderate or vigorous intensity)
- **Impact** (high or low)
- **Timings**
- Different type of **stretch**

Low impact activities:

High impact activities:

Sports specific activities

The last part of the warm up should include the opportunity to practice some of the skills used in the selected sport/physical activity or outdoor activity.

Examples of sport specific activities

- **Football** - passing, 2v2, shooting drills.
- **Basketball** - layup and rebound drills, ball handling skills, 3 man weaves
- **Boxing** - shadow boxing, boxing combinations
- **Kayaking** - pracitise the paddling action out of the water to help mobilse the shoulder joints

Organising your warm up

Things to think about when organising your warm up:

- **Space:** Is it indoor or outdoors? How weill you mark out your area?
- **Indoor or outdoor:** Is the weather suitable e.g. too hot, too cold or raining?
- **Equipment**: What equipment do you need and how much?
- **Participants**: Will they be in groups or in pairs?
- **Timings**: How much time will you allocate to each section?

Delivering your warm up:

Positioning: Think about where you stand when giving instructions. All participants should be infront of you and looking at you.

Demonstrating: You should be prepared to demonstrate each activity and you should also have alternative activities incase you need to adapt the warm up.

PLYMPTON ACADEMY

TERM ONE & TWO

HANDBOOK

YEAR 10