NAME: _____

TERM 5&6

YEAR 10
FOUNDATION

PLYMPTON ACADEMY

HANDBOOK

TERM 5&6

HOMEWORK PLANNER

YEAR 10	X BAND		Y BAND	
	Subject 1	Subject 2	Subject 1	Subject 2
Monday	Science	English	Science	Maths
Tuesday	Option P	Option R	Option P	Option R
Wednesday	Science		Science	
Thursday	Science	Option Q	English	Option Q
Friday	Maths	Option N	Science	Option N

When I am going to do my homework

	Monday	Tuesday	Wednesday	Thursday	Friday		Saturday	Sunday
Before school								
Lunch time								
Between 3.00pm and 4.00pm								
Between 4.00pm and 5.00pm								
Between 5.00pm and 6.00pm								
Between 6.00pm and 7.00pm								
Between 7.00pm and 8.00pm								
Between 8.00pm and 9.00pm								

The Formal Elements

Examples of how they are used by artists.

Tone

Tone can be used:

To create a contrast of light and dark

Johannes Vermeer

To create dramatic atmosphere

Joseph Wright of Derby

To create the illusion of form, depth and distance

Caspar David Friedrich

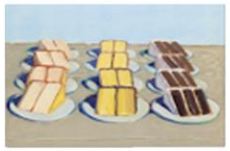
To create a rhythm or pattern within a composition

Paul Klee

Shape

Shapes can be used to control your feelings in the composition of an artwork:

- Squares and Rectangles can portray strength and stability
- Circles and Ellipses can represent continuous movement
- Triangles can lead the eye in an upward movement
- Inverted Triangles can create a sense of imbalance and tension
- The angles and curves of shapes appear to change depending on our viewpoint (perspective).



Wayne Thiebaud

Henri Matisse

Form

Three-Dimensional Form can be:

Modelled (Added Form)
Antony Gormley

Cast (Relief Form)
Alberto Giacommeti

Carved (Subtracted Form)
Leonardo Da Vinci

Constructed (Built Form)
Louise Nevelson

Form can be created from sculptural materials like clay, wax, plaster, wood, stone, concrete, cast and constructed metal, plastics, resins, glass and mixed media.

Line

- **Freehand lines** can express the personal energy and mood of the artist
- **Mechanical lines** can express a rigid control
- **Continuous lines** can lead the eye in certain directions
- **Broken lines** can express the ephemeral or the insubstantial
- **Thick lines** can express strength
- **Thin lines** can express delicacy

Henry Moore

Peter Doig

Colour

Colour is the visual element with the strongest effect on our emotions. We use colour to create the mood or atmosphere of an artwork. There are many different ways it can be used:

Colour as mood

Pablo Picasso

Colour as symbol

Anish Kapoor

Colour as movement

Sol LeWitt

Colour as pattern

Yayoi Kusama

Colour as contrast

Josef Albers

Colour as light

Claude Monet

Pattern

Pattern repeats the elements of an artwork to communicate a sense of balance, harmony, contrast, rhythm or movement.

Pattern as landscape

David Hockney

Pattern as contrast

M.C. Escher

Pattern as repetition

Andy Warhol

Pattern as decoration

Kehinde Wiley

Texture

Implied texture

Albrecht Dürer

Chuck Close

Physical texture

Frank Auerbach

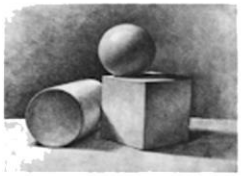
Vincent Van Gogh

The Formal Elements

The fundamentals for creating art

Tone

Tone describes the lightness or darkness of a surface.



A **gradient** is a series of **tonal values** from light to dark.

Tone can help to provide a **form** with value to give a sense of volume to a flat surface.

Shape

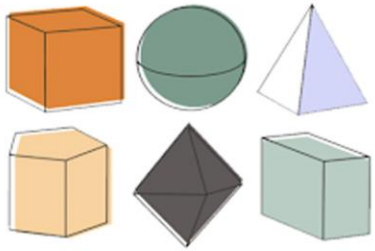
A Shape is an area enclosed by a line. It is 2 dimensional and can be geometric or organic.

Geometric

Organic

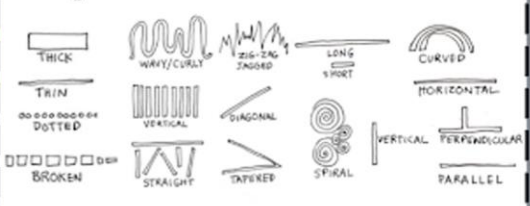
Form

Forms are 3-Dimensional shapes. They occupy space (like in sculpture) or give the illustration that they occupy space (drawing).

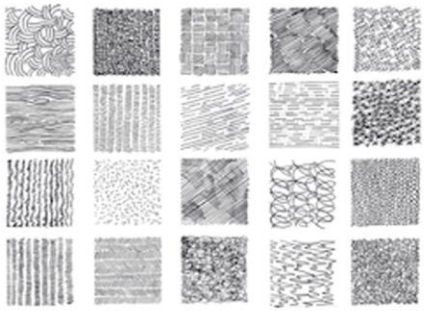


Line

A line is the mark left by a moving point, e.g a pencil or a brush dipped in paint. It can take many forms, e.g horizontal, diagonal or curved.



Marks can be repeated and used together to create patterns in order to give tone and texture to your drawing.



Lines can be expressive and gestural.

Colour

Colour is light reflected off a surface.It has 3 main characteristics: **Hue** (Colour name) **Intensity** (how bright or dull it is) and **Value** (How light or dark it is).

Primary colours

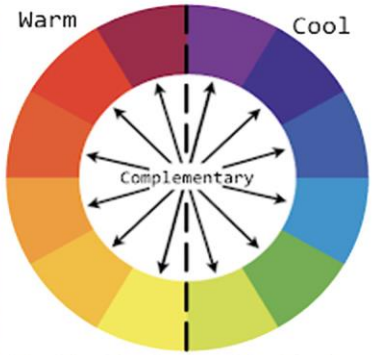
All other colours can be obtained by mixing primary colours together. Primary colours can not be created by mixing other colours together.

Secondary colours

A colour resulting from the mixing of two primary colours.

Tertiary colours

A colour mixed from a primary and a secondary colour.



Harmonious colours are groups of three colours that are next to each other on the colour wheel, and a tertiary. Red, orange, and red-orange are examples.

Complementary colours are colours that are opposite each other in the colour wheel.

The colour wheel can be split into **Warm** and **Cool** colours. Remember each individual colour has its own warm and cool variation too.

Pattern

Pattern is a design that is created by repeating a formal element. It can be man made like a design on fabric, or natural, such as the markings on animal fur.

The image repeated to create a pattern is called a **motif**. These can be simple shapes or more complicated arrangements.

There are different types of pattern:

Regular
Shapes of the same size, repeated in the same place.

Irregular
The shapes still repeat, but can be different sizes or in different places.

Symmetrical
A design that is identical on both halves when folded

Tesselating
Identical shapes that fit together without any gaps.

Texture

Texture is the surface quality of an object. Texture can be real or implied. Real texture can be felt e.g tree bark, whereas implied texture creates the look of texture on a flat surface e.g a drawing or painting.

Year 10 Acting
2023

Btec tech award in Performing Arts
Component 3

"I regard the theatre as the greatest of all art forms, the most immediate way in which a human being can share with another the sense of what it is to be a human being." — Oscar Wilde

Devising

Overview of Component 3:

In January of year 11 the brief will be released from the exam board. This will contain the selected stimulus, the style of event in which you have been commissioned for, the theme and the intention of the event. All of these elements are essential to understand as they will need to influence both your practical and written responses.

The component is split into four elements:

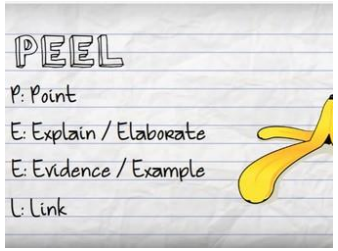
1. Activity 1- Writing 800 words on your initial ideas and what you have been creating so far in lessons to explore the stimulus and brief.
2. Activity 2- Writing 800 words on the development of your ideas and what you have been creating practically. This will include key influence from practitioners, skills and techniques.
3. Performance- Performing your piece to a small audience and camera
4. Activity 4- Final write up (800 words) of the evaluation of how your piece went. What went well and even better if- Always linking back to the brief and stimulus.

Key Skills:

.Collaboration, communication, listening, sharing ideas, patience, time-management, creativity, improvisation, analysing, evaluating, feeding back, applying feedback, refining, proxemics, staging, blocking, facial expressions, gesture, body language, posture, movement, physicality, voice, projection, articulation, tension, atmosphere, use of props, team-work, leadership, ensemble, contact work, lifts, imagination, improvisation, script writing, positivity.

Examples of Stimulus:
Truth & Lies
Better Together
Conflict & Peace

Brief will include:
Event type
Target audience
Theme & Intention
Length of performance
How many performers



ACTING

Year 10 Acting
2023

Btec tech award in Performing Arts
Component 3

"I regard the theatre as the greatest of all art forms, the most immediate way in which a human being can share with another the sense of what it is to be a human being." — Oscar Wilde

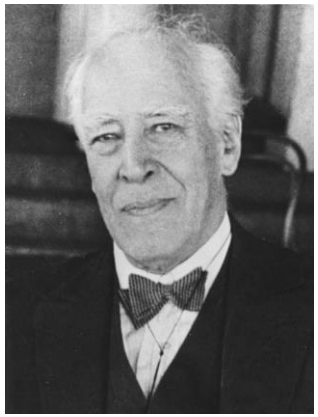
Key Practitioners and Skills

Influence of Practitioners:

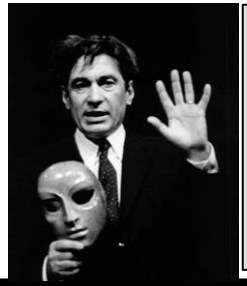
Throughout this term and the start of year 11 you will be exploring the work of a variety of practitioners to help broaden your knowledge and creativity. When creating your final exam piece, it is vital you take inspiration from a handful of practitioners to demonstrate your understanding of how theatre is created, explored and developed.

Frantic Assembly:
They are a physical theatre company who have been creating bold and brave theatre for over 25 years. They explore key techniques to developing Physical Theatre such as: Chair Duets, Hymns Hands, Round-By-Through, Lift-Work and more.

Konstantin Stanislavski:
A Russian practitioner, born in 1863 believed theatre should immerse the audience into believing. Everything an actor did needed to be rooted in truth and stay as realistic as possible. His style of theatre was called 'Naturalism'. Key techniques include: Magic if, given circumstances, emotion memory and more!



Bertolt Brecht:
A German practitioner who was born in 1898, created a style of theatre called 'Epic Theatre'. His ambition was to stop audiences 'hanging up their brains with their hats'. He wanted them to think, question and remind them they are watching a performance. Key techniques of his include: breaking the fourth wall, narration, placards, direct address, tableaux's and more!



Jacques Lecoq:
A French practitioner, born in 1921 focused on the 'moving body' and 'gesture'. He believed play was essential to creating and improvising theatre, as well as listening to the body and a high level of imagination. Key genres of his work include: Clowning, Melodrama and Commedia Dell'Arte.

LLOYD NEWSON
DV8
PHYSICAL THEATRE

DV8:
Founded in 1986, DV8 focus on physical theatre, music, soundscapes and dialogue to build around a character. DV8's work was often rooted in a political message. Key techniques include: Speech hands.

A01 EXPLORE

DEVELOP

DEVELOP IDEAS

INVESTIGATE & RESEARCH OTHER ARTISTS WORK

ANALYSE

ANNOTATE

Clay Techniques

Pinch: Shaping clay by pressing between thumb and finger.
Coil: Using rope like strands of clay to build hollow forms.
Slab: Clay is formed into sheets of the same thickness.
Hand building: Building clay piece with hands.
Throwing (on wheel): Making a clay piece on the pottery wheel.
Additive: Adding clay.

A03 EVIDENCE

RECORD

PRESENT IDEAS

PRIMARY OBSERVATION

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

ANNOTATE

DIFFERENT MEDIA

A02 REVIEW

REFINE

EXPERIMENT

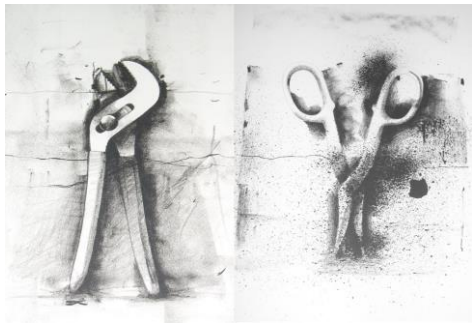
EXPLORE DIFFERENT IDEAS AND MEDIA

A RANGE OF TECHNIQUES & PROCESSESS

SELECT

IMPROVE

ARTISTS REFERENCES - JIM DINE, MIKE LIBBY, SOPHIE MUNNS, ROSALIND MONKS



A04 OUTCOME

PRESENT

FINAL IDEAS

DEVELOPED AS PLANNED

CLEARLY RESPONDS TO ARTISTS EXPLORED

CONNECTION

CONCLUSION

Steampunk began as a genre of science fiction and fantasy literature, but has developed in to a craft and design movement that commonly features aspects of steam powered machinery.

Steampunk often incorporates fashion that combines historical elements with technological features.

Mixed Media

Mixed media art refers to a visual **art** form that combines a variety of **media** in a single artwork. For example, if you draw with ink, then paint over it with watercolors, then add some highlights in colored pencil - that's **mixed media**.

ART & DESIGN - Mechanic Organic

Personal Response

For the final stage of the 'Mechanic Organic' project, you will be asked to make a personal and meaningful response to the theme. This will include developing your own idea, linking your work to an artist, experimenting, drawing, taking photographs and leading towards an outcome.

A01 EXPLORE

DEVELOP

DEVELOP IDEAS

INVESTIGATE & RESEARCH OTHER ARTISTS WORK

ANALYSE

ANNOTATE

Evaluating your work - Questions to consider

What was your theme for the project?
How have you developed your ideas?
How did your work change through the project?
What artists did you look at and how have they influenced you?
How have your skills developed during the project?
What materials did you use, and why? Did they work successfully?
What meaning and messages did you want to convey and were you successful?
How did your chosen artist influence your final piece?
Are you happy with your final piece? Are there any elements you like in particular?
Is there anything you would change? Why?

A04 OUTCOME

PRESENT

FINAL IDEAS

DEVELOPED AS PLANNED

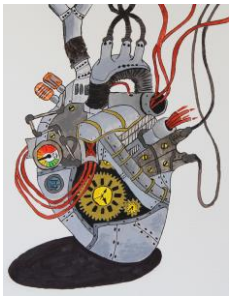
CLEARLY RESPONDS TO ARTISTS EXPLORED

CONNECTION

CONCLUSION

Observations

Observations can be recorded using images, models, photographs and words. To convey your ideas, observations and intentions successfully, you need to refine your practical skills with your chosen media and materials.



A02 REVIEW

REFINE

EXPERIMENT

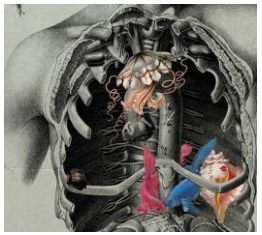
EXPLORE DIFFERENT IDEAS AND MEDIA

A RANGE OF TECHNIQUES & PROCESSESS

SELECT

IMPROVE

Artist references: Steampunk, Mike Libby, Michelle Parliament, Jim Dine, Aurora Robson



A03 EVIDENCE

RECORD

PRESENT IDEAS

PRIMARY OBSERVATION

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

ANNOTATE

DIFFERENT MEDIA

ART & DESIGN - Making a Personal Response

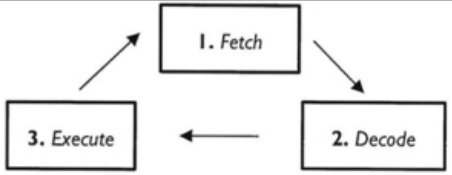
1. The purpose of the CPU

The purpose of the CPU	To manage basic operations of the computer. To be the 'brains' of the computer
The main components of the CPU	Control Unit. Arithmetic Logic Unit. Registers. Cache
Von Neumann Architecture	The architecture that allows for the storage of instructions and data in the same location
The FDE Cycle	The FDE cycle (Fetch Decode Execute) is carried out continuously in the CPU to process instructions
Binary	The number system used to store instructions and data in the computer
The role of a register in the CPU	It is a place to temporarily hold data and instructions as they are being processed by the CPU.
The PC	The Program Counter keeps the address of the next instruction to be processed
The MAR	The Memory Address Register is used to tell the CPU where to locate data in Main Memory
The MDR	The Memory Data Register is used to store data that is fetched from Main Memory or data that is to be sent to Main Memory
The ACC	The Accumulator stores results of logic operations and calculations used during processing

2. Common CPU Components and their Function

The Control Unit has two functions	(1) Sending signals to control the flow of data and instructions, and (2) decoding instructions
Cache memory	A small section of extremely fast memory used to store commonly used instructions and data. It is useful as the CPU can access the (fast) cache directly. L1 cache is closest to the CPU, L3 cache furthest
The ALU has the following functions	It carries out mathematical / logical / shifting operations on data; for example multiplication, division, logical comparisons
An Address	This is a location in the Main Memory (RAM) that stores data or instructions in the Von Neumann Architecture
Buses	Transfer information between the CPU and Main Memory (and other places). The Address bus carries memory addresses between CPU and RAM. The Data bus carries data or instructions. The Control bus indicates whether is reading from or wrtiing to RAM.

3. The F-D-E (Fetch Decode Execute) Cycle

The F-D-E Cycle repeatedly cycles	
The Fetch Stage	The address is generated by the Program Counter (PC) and is carried to the Memory Address Register (MAR) using the Address Bus. The data or instruction that is in that memory location is placed on the data bus and carried to the processor and is stored in the Memory Data Register (MDR). The PC then updates and stores the next instruction address, ready for the next round of the cycle.
The Decode Stage	The data or instruction in the Memory Data Register (MDR) is then decoded to find out if it is a piece of data or if it is an instruction to do something such as ADD, STORE, SWITCH, REPEAT etc.
The Execute Stage	The CPU performs the actions required by the instruction. If it is an instruction to control input or output devices the Control Unit will execute the instruction. If it is a calculation then the Arithmetic and Logic Unit (ALU) will execute the instruction. The results of any calculations are recorded in the Accumulator.

4. Performance of the CPU

Cores	CPUs with multiple cores have the ability to run multiple programs at the same time (multiple FDE cycles simultaneously).
Clock Speed	The clock speed describes how fast the CPU can run. This is measured in megahertz (MHz) or gigahertz (GHz) and indicates how many fetch-execute cycles the CPU can deal with in a second. A cycle takes several clock 'ticks'.
Cache Size	The more data that can be held in the cache, the shorter the trips the electric pulses need to make so this speeds up the processing time of each of those billions of electrical signals, making the computer noticeably faster overall.

5. Embedded Systems

Definition	A computer system which forms part of an electronic device
Re-programmable	Not for different purposes but firmware can sometimes be upgraded
Reasons	They are cheaper to make and smaller than a General Purpose Computer
Examples	Washing machine, Smart Oven, Car Engine, Pacemaker

1. The purpose of RAM and ROM in a Computer System

The purpose of RAM	RAM is the main memory (also called primary storage) for storing data and programs while they are in use
The purpose of ROM	ROM stores the boot sequence, which is a set of instructions that the computer executes every time it is switched on. ROM is essential since if loads the operating system
Cache memory	A small section of extremely fast memory used to store commonly used instructions and data. It is useful as the CPU can access the (fast) cache directly. L1 cache is closest to the CPU, L3 cache furthest
We use RAM rather than Secondary Storage	The RAM can be accessed at a much higher speed than the secondary storage. If the CPU was having to communicate directly with secondary storage for the F-D-E cycle the computer would be incredibly slow
Volatility	ROM is non-volatile (it keeps its contents when the power is turned off). RAM is volatile (it loses its contents when the power is turned off)
Primary Storage Devices	Primary storage devices are internal to the system and are the fastest of the memory/storage device category. Typically, primary storage devices have an instance of all the data and applications currently in use or being processed. The computer fetches and keeps the data and files it in the primary storage device until the process is completed or data is no longer required. RAM, ROM, Graphics Card RAM, cache and registers are common examples of primary storage devices
Increasing RAM	This can speed the computer up since there is less need for virtual memory

3. Secondary Storage

Difference from primary storage	Primary storage (e.g. RAM, cache) is volatile. Secondary storage is non-volatile. It retains its data when the power is switched off
ROM as secondary storage	Not really. ROM is read only. Secondary storage generally needs to be written to as well as read from

6. Typical Uses of Secondary Storage Devices

Optical	Read only distribution on a large scale (CD/DVD). Relatively small capacity
Magnetic	High data capacity. Reasonably fast. Low cost. Cloud storage on server farms
Solid State	Low power. Small. Rugged. Silent. Very fast. Medium data capacity

2. The Need for Virtual Memory

Definition of virtual memory	A temporary storage space taken up on a secondary storage device (e.g. hard disk) to allow more space for running programs and data than can fit in primary storage (RAM)
Use of virtual memory	Open applications / data that are not in current use are 'paged' out to the secondary storage. When they are needed they are 'paged' back into primary memory
Advantage of virtual memory	Having virtual memory available allows a computer to run more programs at the same time, or to run larger programs; or to work with much larger amounts of data than could fit in the primary storage (main memory / RAM)
Disadvantage of virtual memory	It is relatively slow compared with RAM. The need to page data in and out of the secondary storage device slows down the computer. It can also lead to 'disk thrashing'

4. Common types of Secondary Storage

Optical	The surface of a CD is covered in microscopic dots. A laser would skim across the surface reading these. As the laser passes over, the pattern on the surface is picked up. If the laser hits a dot it is reflected differently to if there were no dot present. Examples : CD/CDR/CDRW/DVD/BluRay
Magnetic	Magnetic hard drives use silver coloured disks which are covered on both sides with a magnetic film divided into billions of tiny areas. Each one of those areas can be independently magnetised (to store a 1) or demagnetised (to store a 0). The read/write heads would flicker quickly over the surface as it reads and writes the data. Several platters would be installed in one hard drive to give greater storage capacity. Examples : Hard Disk Drive / DAT / Tape Drive / Cassette
Solid State	Solid-state secondary storage does not have any moving parts. Solid state secondary storage stores data using circuit chips. They are sometimes called flash drives. Examples : USB drives / SD Cards / SSD Drives

5. Considerations for the Most Suitable Secondary Storage Device

Capacity	How much data needs to be stored
Speed	How quickly can the data be stored. How quickly does it need to be read
Portability	Does the device need to be transported? Are weight and size important
Reliability	Is it mission critical? Will it be used over and over again?
Cost	How expensive is the media per byte of storage

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

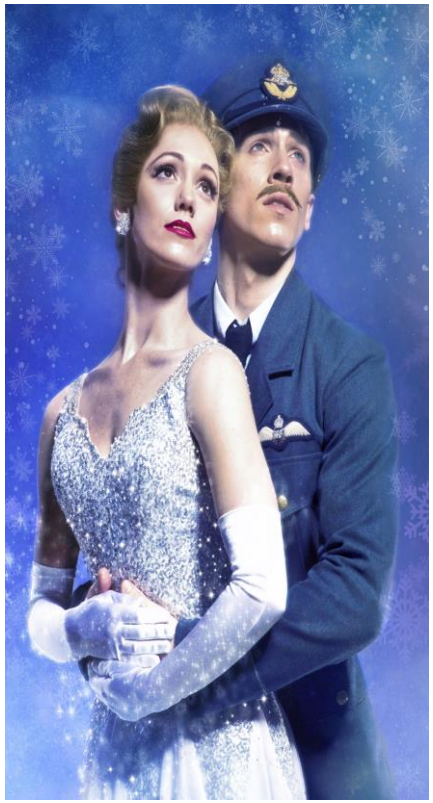
Analogue / Digital	Analogue sound waves must be converted into digital sound waves by taking a sample of the sound at set intervals. This is because computers can only work with digital 'numbers', and not analogue 'sound'
Sample rate	Number of times analogue signal is sampled per second. Measured in 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.

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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.

Replicating professional work

Within this component you will replicate professional work. You will learn the key dance skills needed for performing a professional piece of choreography and understand how to work professionally within a rehearsing environment.

Key Component 2 terminology:

Professionalism - working effectively when collaborating and listening to others ideas.

Safe practice - Ensure you are wearing the correct kit and following expectations at all times.

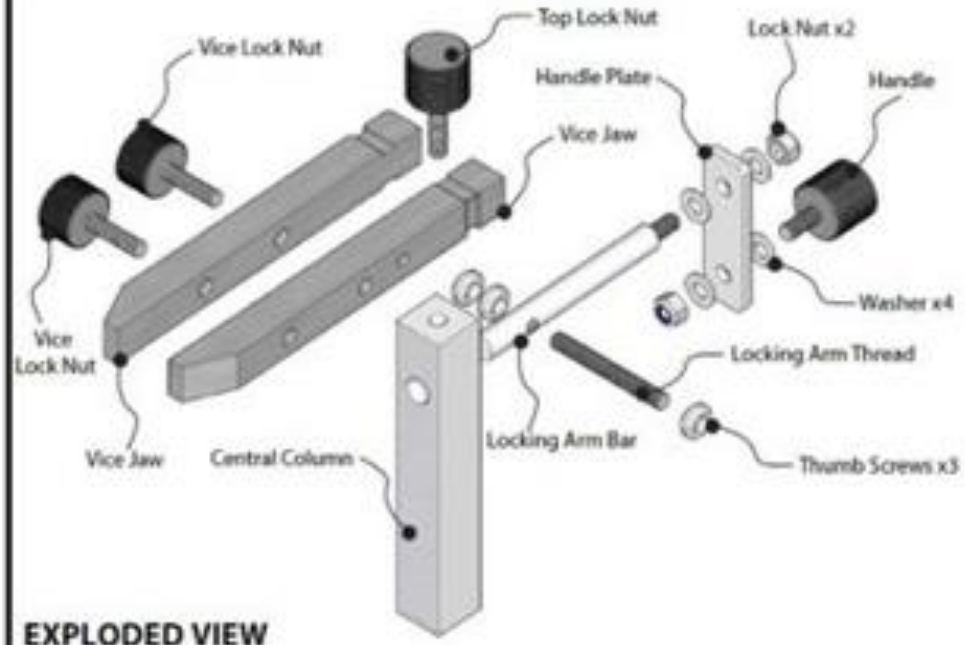
Enthusiasm - Remain engaged at all times. Do not distract yourself and others.

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



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	7.00mm
M10 x 1.25	8.50mm

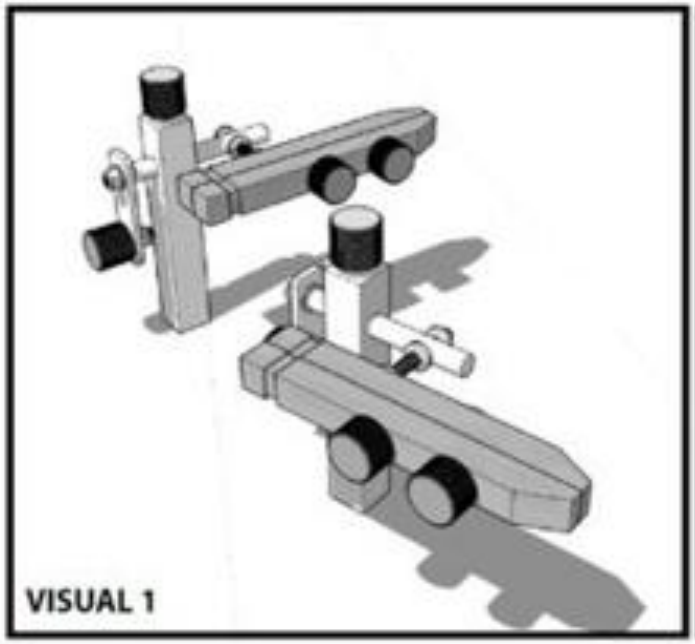
Thread Sizes

Diameter		Speed (rpm)					
Inches	Metric	Softwood	Hardwood	Acrylic	Brass	Aluminium	Steel
Twist drill bits							
5/16 - 5/16	5.6 - 4.8	3000	3000	2500	3000	3000	3000
1/4 - 3/8	12.7 - 9.5	3000	1500	2000	1200	2500	1500
7/16 - 5/8	11.1 - 15.9	1500	750	1500	750	1500	600
Brad point bits							
3.2	3.2	1800	1,200	1500	-	-	-
6.3	6.3	1800	1000	1500	-	-	-
9.5	9.5	1800	750	1500	-	-	-
12.7	12.7	1800	750	1000	-	-	-
15.9	15.9	1800	500	750	-	-	-
Forstner bits							
1/4 - 5/8	6.3 - 9.5	2400	750	-	-	-	-
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	750	-	-	-	-

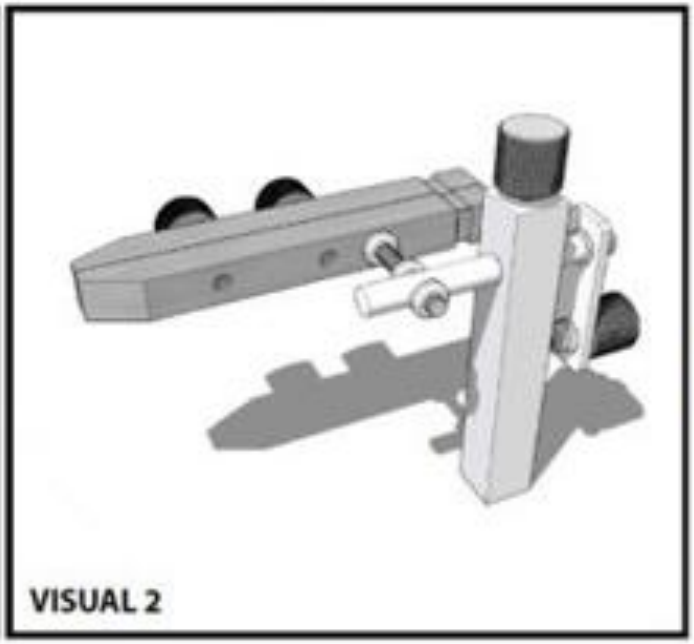
Drill Speeds

Material	Cutting Speed m/min	5mm End Mill Feed in mm/tooth/rev	10mm End Mill Feed in mm/tooth/rev
Aluminium	500	0.050	0.080
Hard Plastic	550	0.060	0.100
Hard Wood	450	0.065	0.095
Soft Wood	500	0.070	0.110
MDF	450	0.200	0.500

Milling Feed Speeds

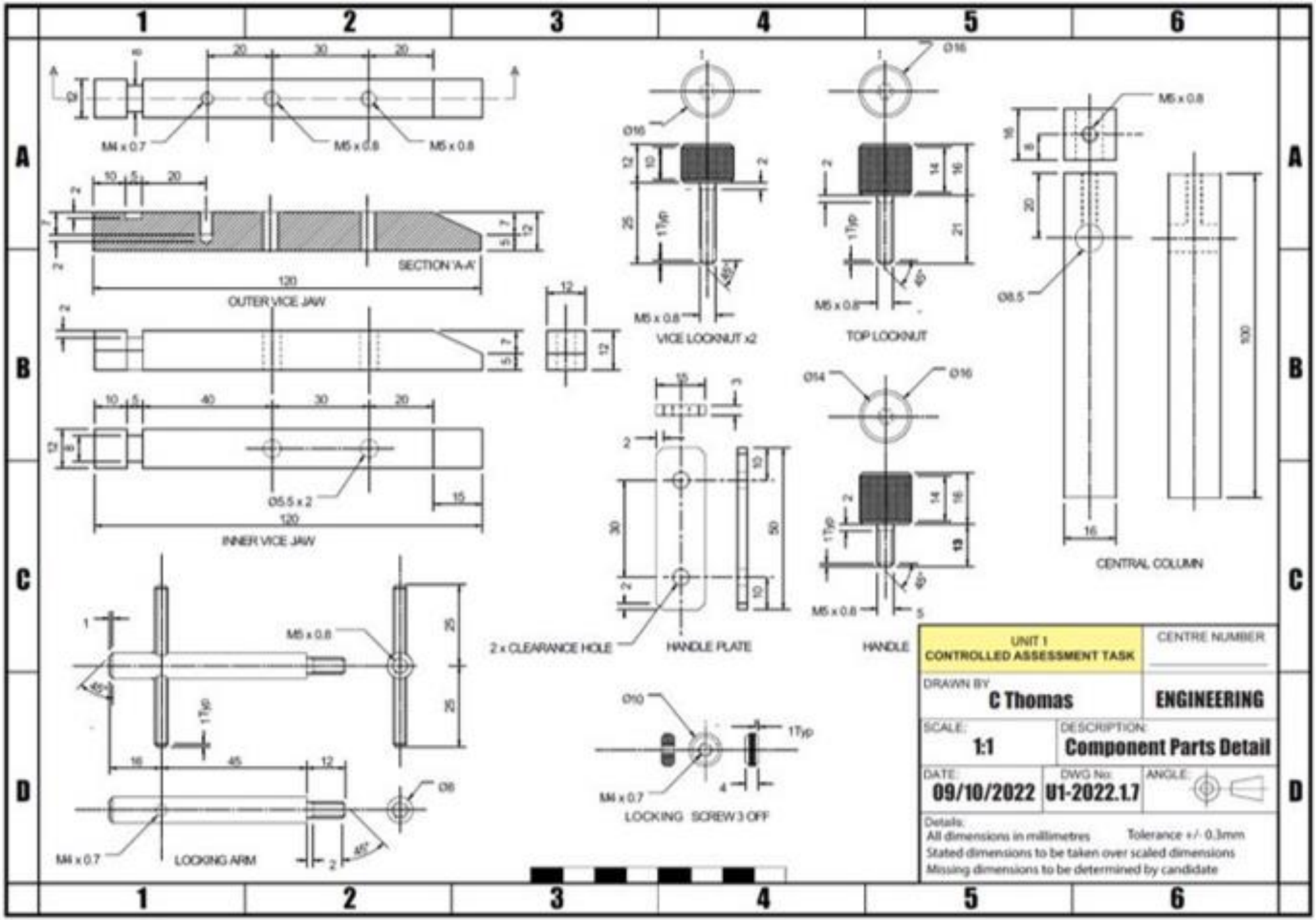


VISUAL 1

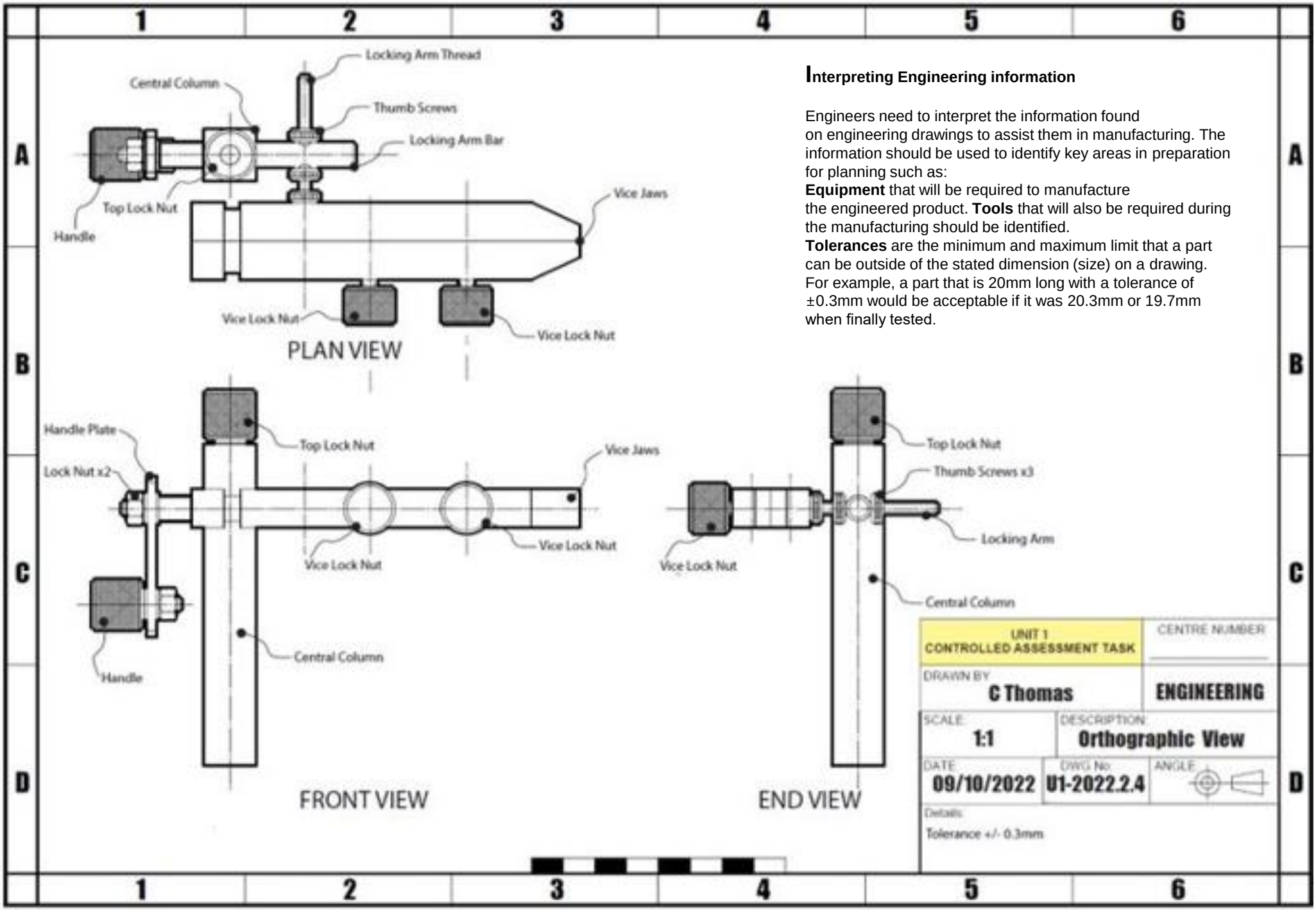


VISUAL 2

UNIT 1 CONTROLLED ASSESSMENT TASK	CENTRE NUMBER
DRAWN BY C Thomas	ENGINEERING
SCALE 1:1	DESCRIPTION Component Parts Visal
DATE 09/10/2022	DWG No U1-2022.3.4



ENGINEERING



Interpreting Engineering information

Engineers need to interpret the information found on engineering drawings to assist them in manufacturing. The information should be used to identify key areas in preparation for planning such as:

Equipment that will be required to manufacture the engineered product. **Tools** that will also be required during the manufacturing should be identified.

Tolerances are the minimum and maximum limit that a part can be outside of the stated dimension (size) on a drawing. For example, a part that is 20mm long with a tolerance of ±0.3mm would be acceptable if it was 20.3mm or 19.7mm when finally tested.

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.

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

Physical Landscapes in the UK

Relief of the UK

Relief of the UK can be divided into uplands and lowlands. Each have their own characteristics.

Key	
Lowlands	
Uplands	

Areas +600m: Peaks and ridges cold, misty and snow common. i.e. Scotland

Areas - 200m: Flat or rolling hills. Warmer weather. i.e. Fens

Types of Erosion

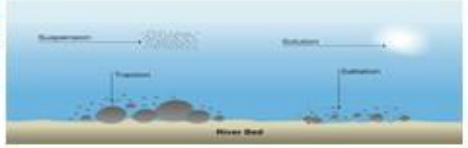
The break down and transport of rocks – smooth, round and sorted.

Attrition	Rocks that bash together to become smooth/smaller.
Solution	A chemical reaction that dissolves rocks.
Abrasion	Rocks hurled at the base of a cliff to break pieces apart.
Hydraulic Action	Water enters cracks in the cliff, air compresses, causing the crack to expand.

Types of Transportation

A natural process by which eroded material is carried/transported.

Solution	Minerals dissolve in water and are carried along.
Suspension	Sediment is carried along in the flow of the water.
Saltation	Pebbles that bounce along the sea/river bed.
Traction	Boulders that roll along a river/seabed by the force of the flowing water.



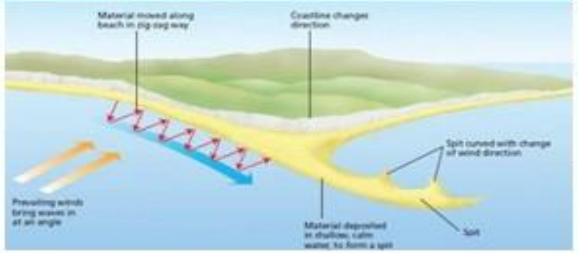
Mass Movement

A large movement of soil and rock debris that moves down slopes in response to the pull of gravity in a vertical direction.

1	Rockfall – where rocks fall from a steep cliff due to weathering.
2	Landslide – where a large area of rock 'slides' down a gentler slope
3	Rotational slip – A slumping effect where saturated soil becomes too heavy and 'slips' down a curved surface
4	Mudflow – Where saturated soil starts flowing down a slope

Formation of Coastal Spits - Deposition

Example: Dawlish Warren.



1) Swash moves up the beach at the angle of the prevailing wind.
2) Backwash moves down the beach at 90° to coastline, due to gravity.
3) Zigzag movement (Longshore Drift) transports material along beach.
4) Deposition causes beach to extend, until reaching a river estuary.
5) Change in prevailing wind direction forms a hook.
6) Sheltered area behind spit encourages deposition, salt marsh forms.

Types of Weathering

Weathering is the breakdown of rocks where they are.

Carbonation (Chemical)	Breakdown of rock by changing its chemical composition.
Freeze-Thaw (Mechanical)	Breakdown of rock without changing its chemical composition.

What is Deposition?

When the sea or river loses energy, it drops the sand, rock particles and pebbles it has been carrying. This is called deposition.

Formation of Bays and Headlands

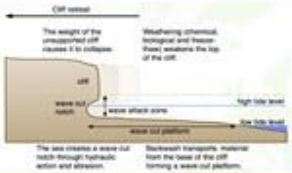
1) Waves attack the coastline.
2) Softer rock is eroded by the sea quicker forming a bay, calm area cases deposition.
3) More resistant rock is left jutting out into the sea. This is a headland and is now more vulnerable to erosion.

How do waves form?

Waves are created by wind blowing over the surface of the sea. As the wind blows over the sea, friction is created - producing a swell in the water.

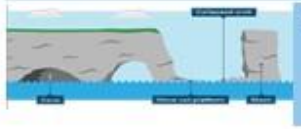
Wave Cut Platforms

Stage One	Stage Two	Stage Three
Waves create notch at the base of a cliff.	The cliff falls leaving scree at the bottom.	The scree is eroded away leaving behind a flat, smooth wave cut platform



Formation of Coastal Stack

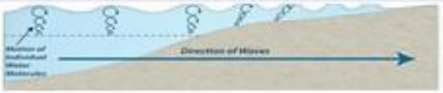
1) Hydraulic action widens cracks in the cliff face over time.
2) Abrasion forms a wave cut notch between HT and LT.
3) Further abrasion widens the wave cut notch to from a cave.
4) Caves from both sides of the headland break through to form an arch.
5) Weather above/erosion below –arch collapses leaving stack.
6) Further weathering and erosion eaves a stump.



Example: Old Harry Rocks, Dorset

Why do waves break?

1	Waves start out at sea.
2	As waves approaches the shore, friction slows the base.
3	This causes the orbit to become elliptical.
4	Until the top of the wave breaks over.

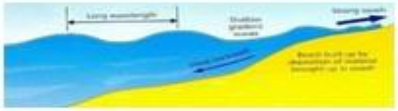


Size of waves

- Fetch how far the wave has travelled
- Strength of the wind.
- How long the wind has been blowing for.

Types of Waves

Constructive Waves	Destructive Waves
This wave has a **swash that is stronger** than the backwash. This therefore builds up the coast.	This wave has a **backwash that is stronger** than the swash. This therefore erodes the coast.



Coastal Defences

Hard Engineering Defences

Groynes	Wood barriers prevent longshore drift, so the beach can build up.	✓ Beach still accessible. ✗ No deposition further down coast = erodes faster.
Sea Walls	Concrete walls break up the energy of the wave . Has a lip to stop waves going over.	✓ Long life span Protects ✓ from flooding Curved ✗ shape encourages erosion of beach deposits.
Gabions or Rip Rap	Cages of rocks/boulders absorb the waves energy, protecting the cliff behind.	✓ Cheap ✓ Local material can be used to look less strange. ✗ Will need replacing.

Soft Engineering Defences

Beach Nourishment	Beaches built up with sand, so waves have to travel further before eroding cliffs.	✓ Cheap ✓ Beach for tourists. ✗ Storms = need replacing. ✗ Offshore dredging damages seabed.
Managed Retreat	Low value areas of the coast are left to flood & erode.	✓ Reduce flood risk ✓ Creates wildlife habitats. ✗ Compensation for land.

Coastal Case Studies

Swanage: Features of Erosion & Deposition Geology: composed of resistant Limestone / chalk and less resistant clay and sands (soft rock)
Landforms of erosion: Headland - a protruding area of resistant rock. Bay - an enclosed area of less resistant rock. Cliffs and wave cut platforms. Caves. Arch Stack e.g. Old Harry Rocks

Landforms of deposition: Beaches / Bar / Spit e.g. Dawlish Warren. Tombolo / Sand dunes

Lyme Regis: Management
Reasons: Layer cake geology, susceptibility to landslides, powerful destructive waves in autumn/winter
Method: coastal management at Lyme Regis has involved two focus areas: 1. **Beachfront** - to combat wave attack hard engineering has used (groynes, the Cobb extended, sea wall, rock armour). Beach nourishment has also been used. 2. **Slopes** – to prevent landslides soil nailing/piling has been used. **Effects** (benefits): 140 properties protected, secures tourism (worth £994 million); safeguards beach, improves access. Financially benefits outweigh costs 6:1.
Conflicts (costs): £21 million, environmental impact e.g. Langmore Gardens, terminal groyne syndrome

Water Cycle Key Terms

Precipitation	Moisture falling from clouds as rain, snow or hail.
Interception	Vegetation prevent water reaching the ground.
Surface Runoff	Water flowing over surface of the land into rivers
Infiltration	Water absorbed into the soil from the ground.
Transpiration	Water lost through leaves of plants.

Physical and Human Causes of Flooding.

Physical: **Prolong & heavy rainfall**
Long periods of rain causes soil to become saturated leading runoff.

Physical: **Geology**
Impermeable rocks causes surface runoff to increase river discharge.

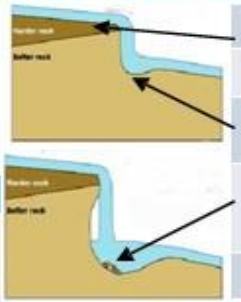
Physical: **Relief**
Steep-sided valleys channels water to flow quickly into rivers causing greater discharge.

Human: **Land Use**
Tarmac and concrete are impermeable. This prevents infiltration & causes surface runoff.

Upper Course of a River

Near the source, the river flows over steep gradient from the hill/mountains. This gives the river a lot of energy, so it will erode the riverbed vertically to form narrow valleys.

Formation of a Waterfall



1) River flows over alternative types of rocks.
2) River erodes soft rock faster creating a step.
3) Further hydraulic action and abrasion form a plunge pool beneath.
4) Hard rock above is undercut leaving cap rock which collapses providing more material for erosion.
5) Waterfall retreats leaving steep sided gorge.

Middle Course of a River

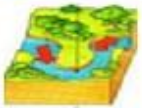
Here the gradient get gentler, so the water has less energy and moves more slowly. The river will begin to erode laterally making the river wider.

Formation of Meanders & Ox-bow Lakes

Step 1

Erosion of outer bank forms river cliff. Deposition inner bank forms slip off slope.

Step 2



Further hydraulic action and abrasion of outer banks, neck gets smaller.

Step 3

Erosion breaks through neck, so river takes the fastest route, redirecting flow

Step 4

Evaporation and deposition cuts off main channel leaving an oxbow lake.

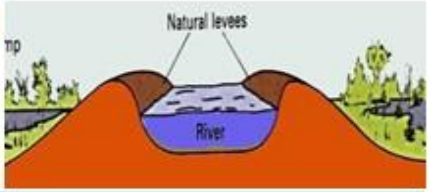
Lower Course of a River

Near the river's mouth, the river widens further and becomes flatter. Material transported is deposited.

Formation of Floodplains and levees

When a river floods, fine silt/alluvium is deposited on the valley floor. Closer to the river's banks, the heavier materials build up to form natural levees.

✓ Nutrient rich soil makes it ideal for farming.
✓ Flat land for building houses.



River Management Schemes

Soft Engineering

Afforestation – plant trees to soak up rainwater, reduces flood risk.
Demountable Flood Barriers put in place when warning raised.
Managed Flooding – naturally let areas flood, protect settlements.

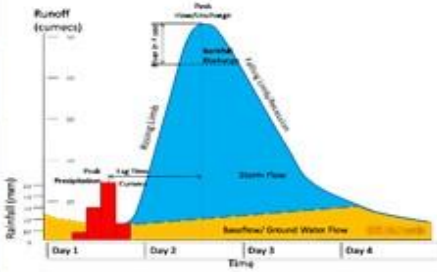
Hard Engineering

Straightening Channel – increases velocity to remove flood water.
Artificial Levees – heightens river so flood water is contained.
Deepening or widening river to increase capacity for a flood.

Hydrographs and River Discharge

River discharge is the volume of water that flows in a river. Hydrographs who discharge at a certain point in a river changes over time in relation to rainfall

1. **Peak discharge** is the discharge in a period of time.
2. **Lag time** is the delay between peak rainfall and peak discharge.
3. **Rising limb** is the increase in river discharge.
4. **Falling limb** is the decrease in river discharge to normal level.



Case Study: The River Tees

River Tees: Features of Erosion & Deposition
Located in the North of England and flows 137km from the Pennines to the North Sea at Red Car.
Landforms of erosion: V shaped valleys interlocking spurs e.g. North Pennines. Waterfalls and gorges e.g. High Force
Landforms of deposition: Meanders and oxbow lakes e.g. Dalton on Tees. Levees and floodplains e.g. Croft on Tees. Estuary e.g. Tees Estuary

Banbury, Cotswold Hills: Flood Management
Reasons: Near River Cherwell, a tributary of the River Thames, has a history of flooding in 1998 and 2007 flooding houses and costing over £12.5 million. **Strategy**: Built embankment parallel to M40 to create flood storage area – area where rainwater is stored. Flow control structures backing up water behind gate in reservoir rather then continuing towards the town. Raise A361 main road plus improved drainage, new pumping station, creation of Biodiversity action plan (BAP) wetland habitat to store more water. **Effects (S):** Raised road can remain open during floods, quality of life improved from new habitats, reduced anxiety **(Ec) COST £18.5 MILLION,** protects 441 houses and 73 commercial properties. **(En)** New habitats created, new area able to be flooded

GEOGRAPHY

1. Reasons For Needing Support

Children and Young Adults

- Parents/carers are ill
- Family relationship problems
- Child may have behavioural issues or profound additional needs

Adults and Children with Specific Needs

- Learning Disabilities
- Sensory Impairments
- Long Term Health issues

Older Individuals

- Breathing problems
- Depression
- Dementia
- Osteoporosis
- Arthritis

2. HEALTH Care Service/Providers

Care Providers	Description	Examples of Care/Services
Primary Care	Primary care providers will see individuals who are suffering with both physical and mental discomfort. Primary care is your first point of contact (you go to that service before seeing a more specialised professional).	• General Practitioner (GP) • Dentist • Accident and Emergency (A&E) • Optician/Optometrist • Walk In Centre • Pharmacist
Secondary Care	Secondary care is when more specific and specialised care is needed for your condition. Secondary care is needed when your primary care service do not have the equipment or qualifications to treat your condition. Secondary care can provide you with more testing, further advice, to diagnose a condition or provide treatment.	• Cardiologist • Psychiatry • Paediatrics • Neurology • Orthopaedics • Gastroenterology
Tertiary Care	Tertiary care is when an individual needs more care than what secondary care can offer. It is highly specialised care and is normally for an extended period of time. It is normally extensive procedures, treatments which are conducted in in a well equipped facility.	Specialist care in the following areas: • Spinal surgery and recovery • Cardiac medication, surgery and recovery • Cancer care extra support • Pain management • Premature and poorly newborn babies
Allied Professionals	Professionals who work alongside primary/secondary and tertiary health care services. They can assess, treat, diagnose and discharge patients across social care, housing, education, and independent and voluntary sectors. They work with individuals from birth all the way to palliative care. They try to maximise the potential for individuals to live full and active lives within their family circles, social networks, education/training and the workplace.	• Physiotherapist • Paramedic • Dietician • Occupational Therapist • Speech and Language Therapist • Art Therapist

3. Tertiary Care Additional Services

Rehabilitation	- Helps people recovery from illness or injury - Restores the person back to their original state such as someone who has had a stroke, may have a rehab programme which is based around physiotherapy
Palliative and End of Life Care	- For individuals who have an illness or disease which has no cure - They help to manage pain, physical symptoms, improve quality of life and offer emotional and spiritual support to the individual and their family
Hospice at Home	- is a service that provides expert care and support for people who have advanced illnesses at home - support is given by nurses and carers who work closely with a GP/doctor and community team

4. SOCIAL Care Services/Providers

Services for Children and Young Adults

Foster Care

- For children who are unable to live with family
- It could be for a short period of time until they can return home
- Or it could be for long periods of time and may lead to adaptation or independent living
- Foster homes provide a safe and stable environment for a children to grow and develop

Youth Work Services

- Is a service which supports young people aged between 11 and 25 years old
- They help with personal and social development and help you build skills to ensure that you are independent and building a better future for yourself

Residential Care Homes

- Is a place where children and young adults live together
- They provide a living environment where you all play a part and continue life as normal, such as attending school
- They provide you with everything you would need to grow and develop

Services for Adults and Children with Specific Needs

Residential Care

- For individuals who have specific care needs and are safer living in residential care than their own home
- They provide accommodation, laundry and meals
- Different residential care homes could be for either, learning, sensory or long term disabilities
- The staff are trained to support the specific needs and are available 24 hrs

Domiciliary Care

- This is where care workers visit the individual at home to help with their personal care and other daily activities
- Some individuals require even more specialist care, and this can be provided as long as the carer is training. Such as feeding tubes

Respite Care

- Is a service/place where the family of the individual who has a specific need can have some free time
- The individual can be looked after trainer carers either at the family home or in a residential care home
- It allows for the family to have a break from being a ‘carer’ and relax without the pressures of looking after someone

Services for Older Adults

- As we get older, our body systems function less effectively and we may require additional help in some areas of our lives
- Older people normally want to stay at home, so if they can they can be supported by a carer or a personal assistant

They may need to move into a residential care home where support is provided on a day to day bases such as cleaning, cooking and personal care.

5. Recap - Health and Social Care Services

HEALTH CARE	SOCIAL CARE
Primary: GPs, dental care, optometry, community health care.	Children and young people: foster care, residential care, youth work.
Secondary and tertiary care: specialist medical care.	Adults or children with specific needs: residential care, respite care, domiciliary care.
Allied health professionals: physiotherapy, occupational therapy, speech and language, dieticians	Older adults: residential care, domiciliary care. Informal care: relatives, friends, neighbours.

6. Health care professionals

A&E - provide attention to critical life-threatening conditions such as bleeding severely, not breathing or is unconscious

Orthopaedic - the branch of medicine dealing with the correction of deformities of bones or muscles. They can provide treatment and surgery to help with pain, injuries or muscle/bone wasting conditions such as Arthritis

Gastroenterology - is the branch of medicine that looks at diseases of the oesophagus (gullet), stomach, small and large intestines (bowel), liver, gallbladder and pancreas. They try to investigate, diagnose, treat and prevent disease of the areas listed above

Premature and poorly newborns - may be looked after in a neonatal centre/unit. They provide specialist care for the baby with pieces of equipment which keep them alive. They also provide support for the family

GP - a doctor based in the community who treats patients with minor or chronic illnesses and refers those with serious conditions to a hospital.

Physiotherapy - Treatment of disease, injury, or deformity by physical methods such as massage, heat treatment, and exercise.

Pain Management - clinics are provided where you can visit for specialised and long term treatment to help manage your pain. They can provide medication, injections, exercise and complementary therapies. They can also put you on a Pain Management Programme which looks at handling the pain both physically and mentally.

Dietitian - they advise people and help them make informed and practical choices about their food and nutrition. They assess, diagnose and treat dietary and nutritional problems. They also teach and inform the public and health professionals about diet and nutrition. Their aim is to promote good health and prevent disease in individuals and communities.

Occupational therapists - work with people of all ages and can look at all aspects of daily life in your home, school or workplace.They look at activities you find difficult and see if there's another way you can do it. They can provide equipment for the home such as railings, higher toilet seats, walking frames and even equipment which could help with reaching for items or to help you dress.

7. Key Terminology			
Accessing	To enter an organisation/service or by provided with a service and being able to use it fully	Domiciliary	Is care and support given at home by a care worker to help a person with their daily life
Barrier	Is something that either stops you or makes it difficult for you to achieve something	Formal carers	Paid and qualified professionals who provide care
Respite	Provides temporary care for an individual, which will give the usual carer a short break	Informal carers	Are people who care for others, however are not trained, or paid for their help. Normally friends and family.

8. Barriers To Care Services		
Physical barriers Objects that prevent the individual from getting to where they should go.	**Cultural/Language barriers** Services that affect someone's culture or that they cannot understand because they don't speak that language.	**Intellectual barriers** Cannot access services because they did not know about them.
Sensory barriers Individuals unable to access services because they are death, blind etc.	**Psychological barriers** Affecting the way an individual thinks about a service.	**Resource barriers** Services not available due to lack of staff or money.
Social barriers Cannot access services because they struggle in social situations.	**Geographical barriers** The distance individuals have to travel to access services.	**Financial barriers** The cost of accessing services.

9. Physical Barriers and Overcoming Them

People can struggle with accessing care services, which could be caused by the building facilities or if the individual has a specific condition or disability which requires them to use mobility equipment, such as wheelchairs or walking frames.
We would also need to consider how the individual actually get to each care service as this may also cause some difficulties.
It is also important to think about the physical difficulties individuals may face when during their appointment/consultation or procedure. An individual who has arthritis in their next and back may find it painful to sit in a dentist chair for long periods of time.

Why People Struggle With Access	Overcoming Access Difficulties
➔ Uneven and rough pavements/surfaces ➔ Building with narrow doorways/corridors ➔ Small bathroom facilities ➔ Getting on and off public transport ➔ Not having lifts or lifts that work ➔ Getting up steep slopes ➔ Climbing numerous amounts of steps/stairs ➔ Bad weather - rain, ice or snow ➔ Slippery surfaces due to rubbish or leaves	★ Facilities to provide ground floor and easy access ★ Facilities to provide electric doors ★ Facilities to adapt buildings to ensure wide corridors, doorways and ensure working lifts ★ Plan routes carefully to avoid obstacles ★ Plan appointment/access for quieter days ★ Keep mobility equipment regularly maintained such as replacing batteries in electric wheelchairs ★ Avoid busy times when traveling to care service

10. Geographical Barriers and Overcoming Them	
People who need to access health and social care services may have problems which stops them from travelling long distances or there may also be difficulties if the individual does not drive. However even if a service user did live close, there are still some geographic barriers which they must face even on short distances.	
Reasons for Geographic Barriers	**Overcoming Geographical Barriers**
Direct transport links may not be available especially if you live rurally Travelling to an appointment multiply times a week can be exhausting, especially for people who are poorly Specialist services such as chemotherapy may only have one facility in the local area, meaning travel is needed Cost of fuel and car parking when travelling For those who walk, the route may be unsafe Public transport may not run at the times which is it needed to make an appointment	★ Voluntary services may offer transport to and from hospital or GP appointments ★ Mobile treatment units may travel to your area, so you could plan your check up or treatment ★ Hospital offer refunds on car park charges for specific treatments such as cancer ★ Family members maybe able to drive you to your service if you do not have a car ★ Partner may drive you if you are feel too poorly or unwell

11. Financial Barriers and Overcoming Them	
In the UK, we do not pay for majority of our NHS treatments, due to our taxation scheme. For example, seeing a doctor or using the emergency service are all free under the NHS.	
Financial Barriers	**Overcoming Financial Barriers**
However there are some health and social care services which are NOT free: ➔ Optical and Dental Care and Prescriptions ➔ Complementary Therapies such as massages which could help muscular pain ➔ Care support such as private care assistants who help with cooking, cleaning, dressing and day to day activities ➔ Chiropody (treatments of the feet, sometimes for painful conditions when walking) **There are also additional costs which need to be considered:** ➔ Petrol and parking charges ➔ Taxi or Bus charges ➔ Loss of income during treatment	★ You may meet specific criteria which means you are exempt (you do not have to pay) such as being under the age of 16 = free dental care, prescriptions and eye care including glasses) ★ Claiming back costs if they meet specific criteria such as the NHS Low Income Scheme ★ Purchasing an NHS Prescription Prepayment Certificate, which is a one off cost, however it covers all prescriptions and dental care. ★ Asking family members to help you, however this in itself may cause other difficulties

12. Empowerment and Independence

Empowerment if the feeling of being in control of your life and the decisions you make. However we can lose empowerment when we become poorly or are in vulnerable situations.
Some individuals need help with being empowered, because of their age, circumstance or level of confidence - for example:

- Children and young people
- Children and adults with specific health care needs
- Individuals with learning disabilities
- Individuals with physical disabilities
- Older individuals

Individuals who have a health condition will need to make decisions based on their care and treatment, therefore it is important that we give them the choice to choose what they feel is right for them.
When individuals are making decisions they will need the following:

- To have all the information available (advantages and disadvantages) which will enable them to make an informed safe choice

Many individuals will feel they have lost control/independence of certain aspects of their day to day routine, so it is important that we allow individuals to continue with daily tasks independently and safely as possible. This could be though:

- Adapting activities such as fitting a stair lift, or putting handrails in the bathroom
- Providing pieces of equipment such as walking frames, wheelchair or a grabber

Individuals can also be empowered through being provided an advocate. An advocate is someone who can help them put forward their views when they are unable to.

13. Respect for Others

Respect is considering other people's views and opinions and treating them in a courteous way regardless of how you personally feel.
It is very easy to jump into a conversation to express your own view, yet this may lead to an argument and falling out with family and friends. Respect is about trying to understand someone else's views and opinions and being able to:

- Be tolerant of others
- Accept their views (as we hope they accept ours)
- Accept and keep an open mind about different behaviours and faiths

Respect is also about privacy and we can respect privacy in some of the following ways:

- Gain permission before entering someone's personals space
- Provide a private area to talk about sensitive issues
- Do not leave personal records around for other people to see
- Do not access someone else's phone without permission

Respect is extremely important when it comes to individuals with mental health conditions. It may be hard to understand someone's views/choices when they have a mental health condition, however we must respect them. The attitudes of the care workers can influence if an individual with mental health conditions continues with their treatment plan. Care workers must ensure they:

- Respect the person's views and ideas
- Understand and accept that ideas/views may change quite quickly
- Promote independence
- Involve the individual in all decision making
- Support the individual without imposing your own views

14. Maintaining Confidentiality

By law, it is a person's right to have their personal information kept confidential (private). Some of a service users information which health and social care workers must keep confidential is as followed:

- Address and who they live with
- Health issues, test results, planned treatment and allergies
- Religion, beliefs, sexual preferences
- Where they work and their financial details

It is also important that care workers know exactly how to keep information safe. Some methods could be:

- Passwords on all computers and electrical devices
- Locking paper files away in locked cabinets or rooms
- Don't leave files left unattended for others to see
- Do not discuss service users in open spaces or to people who do not have the right to know

If care works 'breach' confidentiality (passing on private information) it could cause a lack of trust for the service user. It may also lead to anxiety and fear of that service and the care workers.
Social media is a platform where private information could be available and health and social care workers must be extremely careful when dealing with their organisations social media. For example:

- A care worker in a residential care home takes a picture of the local primary schools visit and posts it on their facebook page. This know means that all the children who are in that photo have their face on social media. THis could be putting some children at risk.

15. Preserving Dignity

Health and social care workers need to work hard at keeping (preserving) their service users dignity. Dignity is about considering how an individual may feel in a certain sensitive situations, such as:

- Going to the toilet
- Need help showering/taking a bath
- Dressing
- Eating and drinking

If individuals lose their dignity, it results in them feeling embarrassed and ashamed and may if prolonged, cause anxiety, depression or isolation.

Carers can show they care about an individuals dignity by:

- Closing doors/curtains when an individual is washing/dressing or going to the toilet
- Keeping their private areas covered
- Speaking quietly and use appropriate language when discussing sensitive and personal topics
- Ensuring an individual's clothes, hair and face are clean
- Dealing with embarrassing situations, quickly, sensitively and professionally.

Care workers who do not demonstrate dignity may do some of the following which can cause the individual to feel unvalued, disrespected or embarrassed:

- Using children's feeder cups instead of age appropriate equipment that has been adapted
- Not discussing with a person what their care will be
- Telling the individual that they should use a bedpan or incontinence
- Rushing a person

16. Effective Communication

Communication is a basic need. It is the key to all relationships, for example, with family and friends, in work, at school, socially and formally. Poor ineffective communication between individuals can often lead to problems. You might have heard the phrase a breakdown in communication to describe a relationship that has failed. Building trust and relationships in health and social care is crucial. Trust can easily be lost if the care worker appears not to care all be interested.

Electronic Communications:

These days, it is common for carers to communicate electronically both of service users and with colleagues. It is important to consider tone and impact, especially in short messages.

For example:

- Using capital letter gives a feel of shouting or impatience
- Short statements may appear code and to direct
- Messages might be misunderstood by the reader (communicating electronically does not have the support of body language that verbal communication does

Service Users who may need help with communication:

- English is not their first language
- Visual difficulties including blindness
- Hearing difficulties including deafness
- Problems understanding because they have dementia or brain damage
- May have a combination of the above

Good Communication:

An effective care worker will be able to:

- Adapt their communication style to suit the audience
- Make service users feel respected

17. Safeguarding and Duty of Care

Safeguarding is about keeping people safe from harm.

- Service users have a right to be safe.
- Care workers have a legal duty to protect service users.
- If a carer understand is a sign of danger and harm they will be able to protect their service users

Types of abuse.

Physical, emotional, sexual, financial, neglect, domestic violence, modern slavery, discriminatory abuse, and cyber bullying.

Safeguarding individuals:

It is important that care workers recognise the signs and symptoms of abuse so they can protect people. Symptoms on their own do not always indicate abuse. Carers need to look at the whole picture. For example, an individual with bruises could've fallen recently. But several unexplained bruises at different stages of healing would make you suspicious. Several signs together would make you strongly suspect abuse.

What Do To:

If you were a care worker and you suspected someone was being bullied or abused, here are some things you would do:

- Report the abuse, the person could be in danger
- Never promised to keep the abuse secret make it clear that you need to tell someone more senior than you
- If you could not talk to someone in the workplace you could tell a responsible adult who could help to contact the inspection team, a team that checks a care service for being properly run

Duty of Care

Care workers must work in ways that never put individuals at any risk of harm. They need to know the responsibilities of the role and only do things that they were trained to do. Their duty of care to safeguard people means that they

- Know their role and responsibilities
- Follow or procedures properly
- Deliver care as individual care plan states
- Always report and record any concerns about an individual, even if it appears minor.

18. Promoting Anti-Discriminatory Practices

What is Discrimination?
Discrimination means treating a person or group of people unfairly or less well than others. Discrimination may be obvious. However, sometimes it is more subtle or hidden. It is against the law to discriminate. The following are known as protected characteristics. The equality act of 2010 makes it illegal to discriminate based on these points. For example, it would be illegal to discriminate against anyone in a job interview based on their:

- Age
- Disability
- Gender reassignment
- Marriage and civil partnership
- Pregnancy and maternity
- Race
- Religion or belief
- Sex
- Sexual orientation

Why People Discriminate:
When someone discriminates against another person it may be because they have a stereotyped idea of what the person is like. They do not see the person as an individual, they see them as a member of a group based on, for example, their religion, race or gender. They make assumptions about the individual based on what they think they know.
For example, they may assume that or older people are frail and weak. This is having a prejudiced attitude.
In childhood, we learn from the people around us. If these people have prejudiced attitudes, then we may grow up believing those attitudes are right. Often, we are unaware of our prejudice, but they can make us act in ways that discriminate against other people. We need to think about our attitude and make sure we do not use discriminatory behaviour.

Effects of Discrimination:
The effects of discrimination are devastating for the victim and for others who know them. Discrimination can result in

- Feeling isolated and depressed
- Disempowerment (loss of control over life)
- Physical health problems such as digestive, heart and skin problems
- Low self-esteem and mental anxiety
- Suicide

Anti-Discriminatory Practice:
There are many ways of promoting anti discriminatory practice in health and social care, for example:

- Having patience with others who do not speak English very well
- Communicating in a way that the person will understand
- Showing tolerance towards people who have different beliefs than you
- Respect in the health and care choices that individuals make
- Not getting involved in a discriminatory behaviour is that others show
- Challenging unkind behaviours

Working in anti discriminatory way will demonstrate that you value a person and their differences.

19. Ways to show you value someone through communication

Smile	Ask questions
Use their name	Use appropriate eye contact
Give them time to respond	Adapt communication to their needs
Use open body language	Use active listening skills
Be positive	Do not judge
Show empathy	Don’t be distracted by anything

20. Signs that a person is being abused

Unexplained injuries	Theft of belongings and money
Insomnia (difficulties sleeping)	Changes in sexual behaviour
Change in appetite	Bruising, bleeding in gentital area
Weight lose or gain	Self harm
Fear of being helped with personal care	Change in personality (unusually quiet, aggressive)
Fear of being alone	Sexually transmitted diseases
Low self-esteem	Rapid change in appearance

21. Types of discriminatory behaviour

Making insulting comments	Ignoring
Making someone look silly in front of others	Not giving out necessary information
Spreading rumours	Making unkind remarks

22. Case Studies	
Empowering/ Independence	James has arthritis. His joints are sore and swollen. He used to be a journalist and write a lot. He wants to discuss his meal choices and how to be as independent as possible whilst eating.
Respect	Nathan is about to have his 3rd birthday. His mum wants to invite everyone from his nursery to his party and is preparing invitations. Some of Nathan's friends are Jehovah's Witness but Nathan's mum wants them to be there without being disrespectful to their beliefs.
Confidentiality	The medical records of 26 million patients are embroiled in a major security breach amid warnings that the IT system used by thousands of GPs is not secure. The Information Commissioner is investigating concerns that records held by 2,700 practices - one in three of those in England - can be accessed by hundreds of thousands of strangers.
Dignity	Ana is receiving palliative care, she recently had a course of chemotherapy and has lost her hair. She had always been very particular about her appearance. She is nearing the end of life and Justine is helping her with her care in the hospice, Justine wants to maintain her dignity where possible.
Communication	The lack of communication across the NHS is "completely shocking", the Health Secretary said yesterday as he disclosed that 11 people died last year after being given the wrong medication. The NHS needs to improve communication to staff and patients.
Safeguarding/ duty of care	There were 12 chances to save the life of this eight year old girl. Instead, she died of 128 injuries. On 25 February 2000, months of abuse and neglect finally overcome Victoria Climbié and she's declared dead. The torture she's suffered includes starvation, cigarette burns, repeated beatings with bike chains and belt buckles. And hammer blows to her toes. Many will blame the Haringey social worker, for not doing more to prevent the abuse and the social care system that utterly failed to protect an innocent child.
Anti-discriminatory practice	Violet aged 84, had an appointment to have an operation on a bunion on her big toe. However, because of her angina, she was sent for a heart scan. She said: "They found that it was not angina, but a leaky valve. "I asked if I could have this fixed. The attitude from doctors was: 'What are you bothered about, at your age?'.

23. Applying care values in a Compassionate way	
Empathy is about putting yourself in someone else's situation and when caring for someone it is important that we understand how they must feel. This means we must show compassion. Care workers can check themselves against the 6C's to see if they are applying the care values with compassion	
Care	Helps to improve an individual's health and wellbeing. Care should be tailored to each person's needs and circumstances
Compassion	Shows the care worker understands what the individual is experiencing. Being empathetic to their situation shows care and value to the individual
Competence	Shows that the care workers can safeguard and protect individuals from harm
Communication	To adapt to individual and their circumstances to ensure important information is given and shared.
Courage	Protecting individuals by speaking up if you think something is wrong; being brave enough to own up if you have made a mistake
Commitment	Carrying out your duties to care for others to the best of your abilities

24. Feedback on the care being provided

Health and care providers are keen to know what the service users think about their care experiences so improvements can be made. They would like to know about:

- experiences with staff
- Levels of satisfaction
- Positive comments as well as negative ones

If feedback is not so positive, it can address at staff training events.

Below are some positive and negative comments - can you tell which is which?

"One of the staff forgot my tablets. I was cross at the time, but looking back, I admire his courage, because he owned up to his mistake"	"My godmother lives in a care home. She has dementia and can be quite difficult at times. When I last visited, the staff were very abrupt and ignored her"	"My son has problems with communication. The care worker went out of his way to draw pictures to make sure that he understood what was happening"	"The porter who took me to theatre was brilliant. She introduced herself. She knew I was scared but she was so positive that she made me feel more relaxed"

25. Making Mistakes

Health and social care staff work extremely hard to do their jobs well, however occasionally they may make a mistake. Some of the consequences should be extremely serious, which could lead to life-threatening situations. So it is extremely important to own up to mistakes so they can correct the mistake. It also shows that they are safeguarding and respecting the individual.

Dealing with mistakes can make us feel terrible, however it is important that we deal with the mistakes in a professional manner, no matter how upset we may be.

How we can feel if we make a mistake

Embarrassed	Ashamed	Disappointed
Fear of being judged	Frustrated and annoyed	Worried about the result

26. Reviewing own application of care values

Strengths

Recognising your strengths is an important part of working in health and social care. It can feel uncomfortable when you openly praise yourself, however, reflecting on what you are good at can:

- Allow you to complete tasks at ease
- Be confident that you are doing your job right
- Letting your manager know your strengths allows them to see how well you are doing your job and may give you more responsibilities

Example: you might be good at communicating with a particular child who has autism. This will benefit the child but you may be asked in the future to help with other children with autism.

Areas for improvement

Sharing your thoughts about the areas/tasks you find difficult with managers will:

- Let them know you may need training on a particular area
- Let them know you lack some confidence
- Give you the opportunity for other staff to help support you before and when carry out those specific tasks

We shouldn't see highlighting weaker areas as a bad thing! If you are able to recognise your areas of weakness and discuss with others, it actually demonstrates positive attributes such as, honesty and resilient!

Reflecting could be called a 'self-assessment' and this will help you develop

27. Receiving Feedback

Purpose of feedback

- It lets you know how well you are doing
- What areas need improving

Feedback from teachers, managers and service users can be:

- Formal - more serious, such as school reports or observations at work
- Informal - chatting to colleagues during your break

The service user feedback is the most valuable as they are the direct receivers of your care!

Giving feedback to others

Giving and receiving feedback should be a positive experience

Use the 'feedback sandwich'

1. Start with something positive
2. Something to improve
3. End with a second positive point

28. Using feedback	
Turning negatives into positives	**Feedback acton plans**
Feedback in the workplace is about helping you develop. One way you can do this is to: - Point out the weaker areas - Give advice on how to improve Recieving what seems like negative feedback can feel uncomfortable. But it is more useful than positive feedback, because it tells you the areas to focus on to improve. It is also important to remember that feedback is about your work, not you as a person.	An action plan is a good structured way to recognise improvements that are needed and find ways of achieving them. Imagine you have just received feedback identifying some areas of improvements - for example, a recent assignment. A feedback action plan will help you use this feedback to improve. 1. First you would need to note down information on your self-assessment (how well you think you did and what areas you think you can improve) 2. Then note down feedback you gained from others - positive areas for improvement. Remember to ask questions if you do not understand part of your feedback 3. Now use the SMART acronym to help you create an effective action plan

29. SMART targets for action plans				
Specific Are your plans detailed, precise and accurate?	**Measurable** How will you monitor your progress?	**Achievable** Can you actually reach your goals if you had everything you needed?	**Realistic** Are your suggestions possible?	**Time-related** Have you set a date to review progress to keep you focused?

The Making of America 1789 - 1900

Box A: Key words and definitions

1. Democratic republic - Country without king or queen. People vote for leaders.
2. Constitution - Set of written rules for the country.
3. President - Leader of United States. Elected every 4 years.
4. Congress - Similar to UK parliament
5. States - Smaller political units which form the United States.
6. Federal power -States had own government.
7. Representatives - Politicians from each state which helped make laws for whole country.
8. Territory - Area with few people. No state government and controlled by Congress.
9. Supreme Court - Highest court in USA
10. Sucede - Leave a union.
11. Segregated - Separate for black and white people.

Box B: Growth of USA (1789 - 1838)

1. USA became independent from Britain in 1783.
2. USA was a democratic republic. Only white, male, property-owning Americans could vote.
3. USA made of smaller states with a governor in charge. Could make own laws but not if they went against Constitution.
4. Each state sent representatives to Congress where they would help make new laws for whole country.
5. The President could suggest laws but Congress had to agree them.
6. 13 states in 1790. Other land lived in by natives or claimed by European powers.
7. There were 26 states by 1838, particularly in the northwest. This was due to expansion of slavery, buying land from France, and fighting with natives then taking their lands.

Box C: Growth of Deep South (1793 - 1838)

1. Cotton was key to wealth. 42% of all exports in the South by 1820. Factories in the North bought and made it into cloth.
2. Many Presidents were from the South and did not stop growth.
3. Eli Whitney invented the cotton gin in 1793. It could separate fibres more quickly and process it 50% faster. More slaves were needed to pick raw material.
4. Slaveholders from the original 13 states opened new plantations in the Deep South with loans from banks who would make a profit from the interest charged.
5. Children of slaves automatically became slaves themselves.
6. Slaves could not vote but it was decided that each was worth 3/5th of a vote in 1787. This gave the white Americans in the South a third more electoral votes in Congress than the North. The interests of slaveholders were maintained until 1861.
7. Many in North felt the South was too powerful. Worried new state joining USA (slave or free) would upset balance of power. A handful of abolitionists believed slavery was morally wrong.
8. Missouri Compromise created in 1820 to solve concerns.Virtual line across middle of country. Any state joining USA below that line could vote whether to be slave or free.

Box D: Removal of Eastern tribes (1830 - 38)

1. The 'Five Civilised Tribes' in south-east tried to adapt and live alongside white Americans.
2. Cherokee used same political structure as USA, set up capital city, used money, had a written language, set up schools and churches.
3. President Jackson persuaded Congress to pass the Indian Removal Act (1830) and set up Indian Territory in Oklahoma.
4. Many tribes were unhappy with this.
5. Government used range of tactics to remove Eastern tribes between 1830 - 1838. This included warfare, treaties, use of concentration camps and forced removal to Indian Territory.
6. 4000 Cherokee died in 'Trail of Tears' forced-march..

Box E: Lives and culture of Plains Indians (natives)

1. Plains were vast and dangerous grassland. White Americans thought they were inhabitable before 1840s. Few resources e.g. water or wood. Extreme temperatures.
2. Sioux tribe divided into 3 groups: Lakota, Dakota and Nakota.
3. Moved permanently from near Minnesota to Plains in 1830s when other natives filled up their homelands to escape white expansion.
4. Lakota were skilled with horses and followed buffalo herds. They, had guns from white traders from 1830.
5. Similarities and differences in the culture of the different tribes. Main features were: nomadic lifestyle, led by powerful warrior, buffalo used for food and homes (tipis), belief in Great Spirit and land could not be bought nor sold.

Box F: Journey to Oregon and California

1. Large number of whites travelled up to 3000 miles from 1840s. Most travelled over land using wagons to carry belongings. 20 miles per day.
2. Push and pull reasons for moving West: Banking system collapse in 1837, explorers began to map safe routes, California taken from Mexico by USA in 1848, Manifest Destiny, belief in converting natives to Christianity and advertising campaigns.
3. Bought supplies at meeting place then travelled with company (group) across trails and Rocky Mountains. Natives often helped at rivers.

Box G: Mormon settlement of Utah

1. Religious group set up in 1800s.Practiced polygamy (marrying many wives).
2. Brigham Young chose Utah to build Salt Lake City in late 1840s.
3. Planned from beginning with irrigation ditches and Mormon Church decided how much land each family got.
4. Nobody owned water. Modelled on streets of Paris. Temple at centre.

Box H: California Gold Rush (1848)

1. Discovery of gold in California led to a rush of settlers from 1848. Over 50,000 whites headed west to 'strike it rich'.
2. Natives forced from land to set up mining camps.
3. Mining settlements were heavily male dominated, often full of gambling dens and saloons. Robberies and murders more common than in other places. Women worked as prostitutes or did domestic chores e.g. cooking and laundry.
4. A lot of money made but often not through gold-mining. Small-business owners sold shovels, sifting pans, maps and supplies.
5. California applied to become a state in 1849. Declared free (without slavery) in 1850. Threw delicate balance of free / slave states into crisis.
6. San Francisco grew to be a city and busy trading port by 1850.
7. Huge numbers of Chinese went to find riches by 1851.
8. Crushing mills needed to extract gold from rock after 1852.
9. Huge impact on Plains. Miners travelled across natives' hunting ground. Government forced to sign Fort Laramie Treaty. Law brought in which allowed natives to be sold into slave labour.
10. Mining caused environmental destruction in California, clogging rivers with silt and putting harmful chemicals into water supply.
11. Led to demands to connect country up fully with railroad.

The Making of America 1789 - 1900

Box I: Pike's Peak Gold Rush (1858 - 59)

1. Land occupied by Cheyenne Indians. Over 100,000 arrived by 1859.
2. Farms established to feed those in mining towns e.g. Denver
3. Settlement in Kansas showed Plains were not deserts and encouraged settlers.
4. Settlement of Kansas broke treaties made between USA and natives in 1850s.They began to fight back. By 1860, war inevitable.

Box J: Causes of Civil War

1. People in South saw cities and industry of North as too modern and ungodly.
2. By 1850, population of North was growing rapidly and gaining more political power.
3. 1850 Compromise (law stating free states had to return escaped slaves to their owner) gave power back to slaveholders in South. In return, California became a free state. Many arguments over whether slavery should be allowed as USA grew.
4. Kansas-Nebraska Act (1854) overrode Missouri Compromise and allowed states to decide if wanting to be free or slave.
5. In 1857, Supreme Court said slaves had no rights and government could not ban slavery in territories.
6. Republican Party created in 1854. Anti-slavery.Worried slaveholders in South.

Box K: Trigger of Civil War

1. Abraham Lincoln elected President in 1860. Lots of support in North but almost none in South.
2. South Carolina voted to secede in November 1860 as a protest for him becoming President.
3. By 1861, six other states also seceded and formed the Confederacy. Elected own President, Jefferson Davis.
4. Lincoln said the Confederacy and its President was illegal in April 1861. Davis ordered his gunboats to attack a Union fort, Fort Sumter in South Carolina.
5. Lincoln declared war in April 1861. Four more states joined Confederacy by June 1861.

Box L: Civil War (1861 - 1865)

1. Fought between North and South.
2. North called themselves Union.
3. South called themselves Confederacy.
4. 750,000 people died.

Box M: Experience of Black people during Civil War

1. In North: Lived in poorer areas with higher rents, segregated education, could get jobs but not in charge of whites, of equal pay or professional e.g. doctor, lawyer etc.
2. In South: Most were slaves. If not, could not get jobs. Lived in plantation houses. Disease spread easily. Illegal to learn reading and writing.
3. 1861 - 62:Union refused to end slavery throughout whole of USA but South Carolina was a free state. Ex-slaves began setting up regiments. A lot of opposition to these and they often did hard labour for Union army. Volunteers taught ex-slaves how to read and write.
4. 1863 - 65: Lincoln declared the Emancipation Declaration on 1st January 1863. Freed all slaves across USA upon Union winning war. Thousands of ex-slave men joined the Union army and often did worse jobs. Ex-slave women supported as nurses / cooks. Most black workers in North did not volunteer.
5. Race riots happened across Northern cities where whites were forced to join the army and blamed black people for this..

Box N: Reconstruction (1865 - 66)

1. Lincoln persuaded Congress to make Emancipation Proclamation the 13th Amendment in January 1865.
2. Set up Freedman's Bureau, which gave land confiscated from plantation owners to ex-slaves.
3. Lincoln shot dead in April 1865 and replaced by Andrew Jackson.
4. Jackson believed his most important job was to bring country back together. Forgave thousands of Confederate soldiers. Returned land to plantation owners. South allowed to re-establish own state governments and bring in Black Codes. Stopped work of Freedman's Bureau.Did little to stop Ku Klux Klan.

Box O: Radical Reconstruction (1866 - 1870)

1. Many Republican politicians were extremely angry at Johnson and forced through own changes.
2. Freedman's Bureau re-established in February 1866.
3. Congress brought in Civil Rights Bill in March 1866 to protect rights of all black Americans.
4. Congress proposed the 14th Amendment in April 1866, which said anyone born in USA was a citizen regardless of skin colour. Became law in July 1868.
5. Ex-Confederate governments were taken over by North between March and July 1867. People who fought against the Union were banned from voting. Military sent to South to protect rights of black Americans.
6. 15th Amendment passed in March 1870, giving all black Americans the right to vote. More than 2000 black Americans were voted into political office by November 1870;

Box P: Reversal of Radical Reconstruction (1870 onwards)

1. Radical reconstruction was not popular in South. Many white business owners in North became rich from building railways or factories in South. Nicknamed carpetbaggers.
2. Freedman's Bureau shut down in 1872.
3. Many black Americans worked on plantations as sharecroppers.
4. 1873: Supreme Court said that voting rights at state level were choice of the state.
5. 1875: Supreme Court said not role of government to stop black Americans being bullied out of voting booths.
6. 1877: Withdrew soldiers stationed in South after war.

Box Q: Railroads

1. July 1862, President Lincoln approved the Pacific Railroad Act. This provided money for any companies willing to create a railroad linking the eastern and western halves of the country.
2. US Government offered free land on either side of the track which could be sold to settlers. This would encourage migration but also white Americans to start farming the Plains.
3. In 1864, over $50 million was made available to encourage the companies to start building. Across the Plains, companies received 6400 acres of land for every mile of track they built.
4. Thousands of workers were needed to build the new track. West Pacific Company employed 12,000 Chinese migrants. Transcontinental railway opened in 1869 at The Golden spike ceremony in Utah.
5. The Railway companies sold land cheaply to people to build farms.
6. The construction of the railroads had a serious impact on the culture of the Native Americans. The railroads divided the lands. The new farms and cattle towns that soon emerged intruded on the vast areas of grassland.

Box R: Homesteaders:

People became homesteaders because:

1. Homestead Act offered 160 acres of free land is inhabited for 5 years.
2. Railroad companies advertised Plains as great place to farm. Unusually high amount of rain in 1860s. New technology made e
3. Ex Slaves could but land to farm and escape the South
4. Railroads allowed people to sell farmed goods to the cities more easily which helped homesteaders to make a profit.

Homesteaders faced problems like:

5. Families often lived miles from nearest town. Lonely and isolated.
6. Few trees.
7. Getting supplies was extremely difficult. People had to improvise.
8. Lack of clean water meant cholera and typhoid was common.
9. Harsh climate; strong winds, freezing in winter and hot in summer.
10. They could not fence the land due to lack of wood.
11. The soil was too hard and broke their traditional tools

To solve these problems they:

12. Would build their homes out of Saud instead of wood as it was cheap and quick
13. Use wind pumps to get water from underground. To do this they would drill into the ground and use the power of the winds to pump the water up from Deep below.
14. Use dry farming methods to capture what little rain fell by turning the soil to prevent evaporation
15. Use new types of crops which could survive the plains, like turkey red wheat.
16. Use the new invention of barbed wire which was developed in 1874 this was cheaper and easier than using wood
17. Women were very resourceful making what they could from what they had such as soap from fat and fixing and mending clothes.
18. They used buffalo dung, or chips, as fuel for their ovens and fires
19. When more people move to the Plains they would work together

Box S: Big Business 1877-1900

1. Big business created opportunities and hardship.
2. Cotton- picked by poorly paid sharecroppers. Changing it into cloth did create jobs but these were low paid.
3. Tobacco- 90% controlled by just one company. No reason then to improve conditions and wages.
4. Bonanza Farms- people could work there to save for their own chance of buying land. The best land, water and railroad access was owned by these big companies. Small-scale farms could not compete against them.
5. Trade Unions had little power in mineral industry. Balck and Mexican workers used to undermine striking workers. If you went on strike you would be black-listed and lose your job.

Box U: Cities and Mass Migration 1877-1900

1. Cities attracted people, especially in the West as they controlled local water supplies and promised work, education and entertainment.
2. Cities were often overcrowded e.g. 32 families sharing 8 storey building which led to outbreak of disease. In Chicago, 60% died before 1 year old.
3. US women got the vote in 1920s.
4. Steam ships made travel faster. 600,000 Italian migrants arrived in 1920s. Many people arrived in America with the promise of a new life especially Jews and other minority ethnic groups. They faced literacy and medical tests before being allowed entry.
5. Immigrants faced racism and prejudice. Often lived in the poorest areas and had low paid jobs.

Box T: Changing lives of Plains Indians 1877-1900

1. After 1877, government policy towards natives became harsher.
2. Natives forced onto reservations after Great Sioux War. Supplies, medical aid and rations were low.
3. Growth of railroad brought many hunters to the Plains. They killed 3 million buffalo by 1883. Government did little to stop them.
4. Homesteaders, ranches and big businesses on Plains pushed many tribes to starvation. Again, government did little to stop this.
5. Government destroyed culture. Tribes sent to different reservations. Lived in houses not tipis. Forced conversion to Christianity. Forced education, often in boarding schools away from family. Children forced to choose English names and beaten if they did not speak English. Dawes Act in 1887 gave natives 160 acres of land and citizenship if they gave up tribal lands.
6. Ghost dance was last major attempt at resistance. Religious movement of 1890s. Believed white settlers would be swept off land and buffalo would return if they danced / prayed. Banned by government. Army killed over 250 believers at Wounded Knee.

Box V: Changing Lives of African Americans 1877-1900

1.
2. Black Americans continue to live in poverty after the end of the reconstruction
3. the cotton industry collapsed after the Civil War because it costs too much
4. black Americans were prevented from getting better paid jobs
5. black Americans in the south was sharecroppers
6. some black Americans became homesteaders, encourage by Benjamin Singleton
7. by 1879 over 6000 black Americans had moved to Kansas these people became known as the exodusters
8. there is racism in northern cities
9. in 1882 Booker T Washington set up schools to train black children to be Farmers and crafts people
10. in 1900 Washington established the Negro business League to support black businesses
11. in 1900 there were 23866 black teachers, and 417 black doctors
12. in the south Jim Crow laws kept living conditions difficult for Blacks
13. Jim Crow laws separated trains theatres churches parks and schools
14. there was an increasing number of black authors with over 100 books and 206 journals published by black authors between 1865 and 1893
15. there was violence against black Americans due to the Ku Klux Klan who reformed secretly in the 1890s
16. there were Redeemer governments who were around by ex slaveholders they tried to undo the changes made by the Civil War
17. Redeemer governments put in place and possible literacy tests which prevented black Americans from voting
18. in 1905 in Louisiana only 1342 black Americans were registered to vote
19. black Americans were lynched in 1892 161 black Americans were lynched

Box W : Cattle Industry

1. The cattle industry grew thanks to the railroads.
2. It started in Texas. Cowboys reared the Texas Longhorn cattle.
3. A few times a year the cattle would be walked to the northern towns where they were sold for a large profit.
4. After the American Civil War, the returning soldiers found that the cattle herds had grown whilst the soldiers had been away fighting instead of their previous work as farmers.
5. In 1866, Charles Goodnight and Oliver Loving made a huge sum of money- $24,000 by selling 2,000 cattle to the Indians on reservations at Fort Sumner. The two men had set up a new cattle trail.
6. These trails were called The LOng Drives.
7. These trials caused conflict with the Indians as the cowboys went through Indian land.
8. When the railroad was built, Joseph McCoy decided to set up a cow town at the point of a railroad in Kansas. The town was called Abilene and it was built in 1867.
9. Abilene was a place for cowboys to take their cattle. The cattle would then be sold to the cities in the East, using the railroad.
10. Abilene wasa drunken place as cowboys would spend their money on drink, gambling and prostitution.
11. John Illiff was a famous cattle rancher who started to ranch on the Plains of America, using the OPen Range.
12. Open Range meant that the cattle were free to roam across the Plains. This meant they had lots of access to grass and water.
13. Droughts on the PLains meant that eventually the cattle industry could not fully support itself and it collapsed.

Box X: Indian Wars:

There was growing tensions between the Whites and the Indians because:

1. Gold rushes, railroads, homesteaders and cattle ranches.
2. The Transcontinental railroad disrupted Indian hunting grounds.
3. Gold discovered at Pikes Peak led to conflict over land and resources.
4. Native Indian s like the Sioux Tribe refused to stay on land set aside for them, called reservations.

THE WARS:

1. **Little Crow's War.** In 1861, Little Crow had signed an agreement with the US government to live on a reservation in return for supplies from the government. The government was not helping them and refused to open up emergency stores when the Indians were starving in 1862. This led to Little Crow and his warriors attacking white farmers because of their desperation for food. It led to the death of 500 white settlers. Little Crow was then attacked by local soldiers and killed. Survivors of the conflict were severely punished with 38 Indians publicly hanged. The remaining tribe were forced to move to a reservation in Dakota.
2. **Red Cloud's War.** In 1861, the Sioux had signed a treaty with the US government who promised to respect the Sioux. This was called the Fort Laramie Treaty. In 1862, Gold was discovered on the Sioux reservation and miners began arriving. The miners created a trail called the Bozeman Trail- it went right through Indian land. Red Cloud of the Lakota Sioux Tribe led attacks against some of the miners. In response, the Us Army set up forts on Sioux land. Between 1866-1868, Red Cloud and his warriors attacked the US Army. By 1868, the US government agreed a new Fort Laramie Treaty. This gave more land to the Sioux in return for peace. It importantly gave the Indians the Black Hills which was sacred land. The US government saw the treaty as a humiliation.
3. **The Great Sioux Wars.** Gold was discovered in the Black Hills in 1874. The government tried to buy the land from the Indians but the Sioux refused as the land was sacred to them. The US government in their frustration ordered the Indians back on to reservation land. However, Sitting bull, a powerful chief refused. On the 25th of June 1876, General Custer of the Us Army decided to attack Sitting Bull. He found Sitting Bull's camp on the Bighorn River. The battle of Little Bighorn ensued- Custer had 210 cavalry men fight against 6,000 Indians. It was a bloody defeat with Custer and his men killed. The Indians scalped and mutilated the bodies of the soldiers. In retaliation, the US government stopped all rations of food in the Indian reservations, the Sioux were forced to sell their land and were moved onto smaller reservations.. Sitting Bull fled to Canada where he was eventually found and killed.

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.

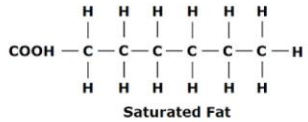
Examples include:

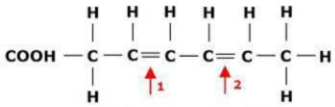
Omega 3- protects the heart, found in oily fish and green leafy vegetables

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.



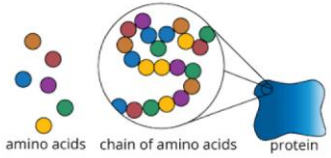


Protein

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

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

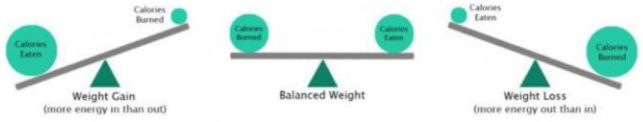
1. Base your meals on starchy carbohydrates.
2. Eat lots of fruit and veg.
3. Eat more fish – including a portion of oily fish.
4. Cut down on saturated fat and sugar.
5. Eat less salt – no more than 6g a day for adults.
6. Get active and be a healthy weight.
7. Don't get thirsty.
8. Don't skip breakfast.

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.

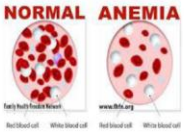
Energy Balance= The amount of energy we get from food each day is the same amount that we use.



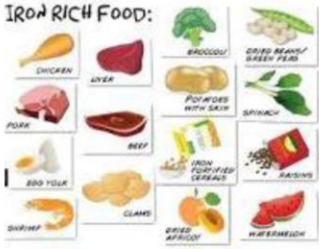
Anaemia

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

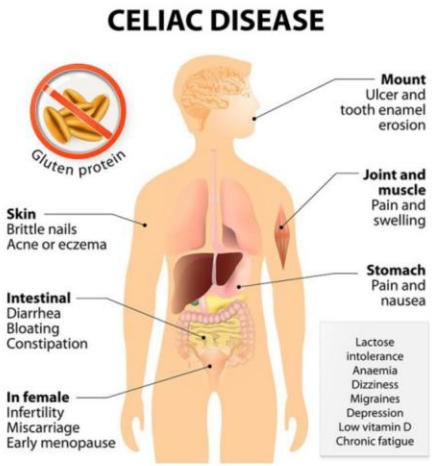


Symptoms include:
- Fatigue
- Weakness
- Dizziness
- Headaches
- Pale
- Rapid heartbeat
- Shortness of breath



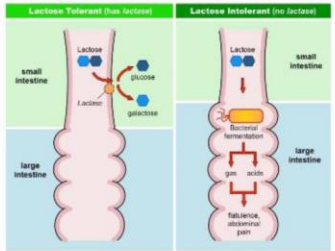
Making informed choices: Coeliac

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

Knowledge Organiser – Food and Catering

Cycle 1 year 10 (Unit 2)
H&C Booklet on **Unit 2—Nutrients**. We will cook foods from using ingredients from all of these sections. **In addition, we will learn how to present food, plate up and garnish and take our grade to an outstanding.**

Week1 and 2

The function of nutrients in the body	
Protein—indispensable—cannot be made by the body; dispensable—can be made by the body.	Nutrient function; Growth and repair. Sources of Protein; Meat, Fish, Eggs, Milk, Cheese, Soya, Quinoa—Quinoa is a seed which we have taken from a plant. We use it in salads instead of rice. It is gluten free and has all of the nine essential amino acids. A protein can consist of between 50 to 10,000 amino acids. 1g of protein =4 kcal.
HBV/LBV	Higher Biological Value/Lower Biological Value
The main differences between the HBV/LBV	HBV is protein mainly found in animal sourced foods. LBV is usually plant based and can mean you need more of the product to gain the correct amount of protein In comparison but not always.

Weeks 3 &4

Carbohydrate	
Carbohydrate	This is the main source of energy for the body to enable it to move, produce heat, make sound, digest food and use the brain. Plants store Carbohydrate in their roots, seeds, stems and leaves.
Two types Group 1	Sugars; Glucose (ripe fruits and veg) Fructose-Fruits, veg, honey. Galactose-milk from mammals. Maltose-barley a syrup added to breakfast cereals. Sucrose- sugar from sugar cane. Lactose—milk and milk products.
Group 2 Starch is a powdery substance when dried that thickens gravy and soups—its used as cornflour. It comes from potatoes, maize, corn and in the food it gives energy.	Complex Carbs; Starch-cereals; wheat, rice,oats, barley.Starchy Veg; potatoes, parsnip, pumpkin. **Pectin**; citrus fruits, carrots, plums. Found in the pips in fruit and used as a natural setting agent and beaten into cheesecake via lemon juice, widely used in jam making and marmalade, extracts when heated. Dextrin; formed when starchy foods are baked. Dietary Fibre also called Non Starch Polysaccharide (NSP) is essential to our diets as fibre absorbs water and this helps keep our waste soft and bulky meaning it leaves our body quickly and easily. Found in cereals and breakfast products, pasta, pastry, peas, lentils. To avoid constipation a varied and full range of foods should be present in our diets every day.
Fat	Nutrient Function (why do we need it)-stored in the body under the skin and insulates from the cold. Protects internal organs i.e.kidneys. Provides fat soluble vitamins A,D,E,K. It provides **energy** and we use it up doing daily jobs so it does not make us fat unless we sit down all day and don't move!
Which Foods? Essential means we MUST have them in our diets.	Essential fatty acids; found in oily fish, plant oils ,seeds, eggs, fresh meat. Liquid plant oils; Olive, rapeseed, sunflower, corn, avocados, nut oil.
Solid fat Visible fat	Butter,Lard,Suet,ghee,palm oil, meat fat, coconut and chocolate. Liquid plant oils; olive, rapeseed,, sunflower and corn. Oily fish, avocados, nuts, seeds and some vegetable fat spreads. These are fats that you can easily see in foods—fat on bacon, oil in tuna, butter becomes oily when heated. Ghee is a butter which has been heated and when heated it separates---this is used in Indian cuisine. --this is used in Indian cuisine and is preferable to this society more than oil.

Week 5 & 6

Vitamins—fat soluble.	
Vitamin A	Why do we need it? To keep skin and eyesight healthy. Foods that provide it; Milk, cheese, butter, eggs, Liver, kidney, oily fish. Plant foods; cabbage, kale, spinach, red veg and carrots, apricots.
Vitamin D	Helps the body absorb the mineral calcium during digestion; helps teeth and bones. Sunlight on skin produces vitamin D; Oily fish, meat, ,eggs, butter.
Vitamin E	Antioxidant which helps prevent heart disease and cancers. Soya beans, corn oil, whole-wheat, vegetable fat spreads.
Minerals;	Calcium (bone formation); dairy foods, green vegetables,fish bones,nuts, soya beans. Iron; (red blood cells); red meat, Liver, dark green leafy vegetables, spinach, cocoa, apricots. Potassium; Body fluids, heat function; bananas, broccoli,nuts and seeds, fish, parsnips. Soduim;balancing body fluids; salt. Magnesium; energy release, bone health; brown rice, green veg,nuts,fish, bread. Phosporous; bone formation,red meat, fish, oats.
Vitamin K	Helps the blood clot after an injury.—Green leafy vegetables, liver, cheese, green tea.

Knowledge Organiser – Food and Catering

Cycle 2 year 10 (Unit 2)

In this cycle, we will take a close look at The production of Dishes for a menu. This will involve designing a menu, making a time-plan that is 'dovetailed' meaning detailed and accurate for assessment. Practicing our chosen dishes and completing the practical assessment. Maximum marks are our target.

The production of dishes for a menu. (in a restaurant)	
Plan the menu—what needs to be done? If a restaurant has 30 'covers'—they will make 35 portions—staff may be allowed the remaining food.	A menu is a laminated sheet/ pamphlet telling the customer what that food outlet is selling. The prices are shown so you can suit your budget, sometimes pictures are shown to show you what it will look like—more common in an Indian restaurant. Recipes need to be detailed. List of commodities (ingredients) and method used in each one. The number of portions the recipe makes and the number of portions needed for that day? This will involve multiplying and division. Some café's have a staff policy that when on duty, the lunch is provided—a minimum wage is paid. This works well for many people and is considered good working practice as staff can supplement their minimum wage by not having to buy a lot of food.
Why is this important?	However large the hotel/restaurant/café/burger stand the food needs to be ordered fresh and stored until it is needed. In a large hotel each member of the kitchen will have a role—in a burger stand only 1-2 people but they still need to have a defined job role.—If you run out of food you will lose money. If you cannot sell that amount of food you will lose money—if food goes off you will lose money. Profit and loss is very important. In France every restaurant have a 'set lunch menu' consisting of 3 courses for approx. 9Euro—this will undoubtedly contain foods from the previous evening.
Order—what needs to be done?	All ingredients on the menu need to be ordered for that day from a wholesalers—supermarkets are very expensive compared to buying in bulk—an early delivery will ensure all foods are cooked ready for a lunch—deliveries should be checked off, if there is food missing you can be charged for it .This should be someone's role—not different people as that person becomes familiar with what's in stock. A carefully planned menu will only work if it is designed carefully, cooked perfectly with all the ingredients required.

Dovetailing your time-plan	
What is dovetailing? P174 in text bk	Dovetailing refers to a method used in your planning which allows you to cook two things at once. Examples are; you have mixed up a cake batter, you put cake in oven for 20mins—whilst cake is cooking you begin to make a burger so both foods are served together. You need to have knowledge of <u>why</u> you should make the cake first? Obvious answers are; it needs to be served cooled especially if you intend to ice it or fill it with cream. Burger is served hot and cake is served cold—its easier to focus on the burger whilst the cake is cooking—you can make the burger first but you'd then have to chill it in the fridge whilst cake was cooking.
Risks and control measures.	With the two foods mentioned cross contamination is very likely so prevention is essential. Raw meat MUST be prepared on a RED board—the cake must be kept separately. Place cake on the windowsill to cool it—do not put cake in fridge as it will dry out and you cannot put hot food in a fridge. This shows how long each process will take and makes good use of staff time, equipment , oven temperatures and washing utensils so there are enough.
Timings; 7 stages of bread; sifting flour, adding warm liquid, mixing and kneading dough, proving dough, knocking back, shape, bake.	Each recipe should be studied to find out the food that takes the longest—this is the food that should be started first. For example; There are 7 stages to bread making—if you chose to make a bread this MUST be started first so you can complete the bread showing your skills whilst other foods are made while the bread is proving/cooking. Yeast is a live ingredient added to the bread flour, it develops carbon dioxide gas bubbles CO_2, when activated with warmth (water), food (sugar), moisture (water and oil)–
Cooling down/serving hot.---using a meat probe.	Food that is a hot dish must be served hot. The cooking temperature for cooked meats is 75c—use a probe to check, then you are allowed to 'hold it' on a hot plate (canteen) at 63c for up to two hours only. Bacteria is killed at 75c. Food that is to be stored at a cool temperature needs to be cooled down quickly to avoid the 'danger zone'—this is the ambient temperature between 5c—and 63c—where food poisoning is most likely to develop.

Waste and food provenance	
Food waste needs to be reduced as this will affect your gross profit. It also affects the environment. Shop locally	Any left over food needs to be assessed to see if it can be used to make a curry? A soup? A chilli? A vegetable quiche? Milk can be made into a sauce and frozen—milk can be made into icecream, butter, yogurt and bread can be made into a bread and butter pudding. Local farms may be willing to deliver but Organic is always a big pull in café's and restaurants. Local produce is popular and reduces food miles. This is where seasonality steps in; only serve asparagus in April when it is growing in the fields—after that, change the menu to suit. This will reduce the food bill, freezer space and the farmer may do a deal with you.
Environmentally friendly/carbon footprint.	Try to buy foods that; avoid intensive farming—large groups of plants or animals are grown together in an unnatural way. Avoid use of pesticides on crops—these are NOT allowed on organic farms and are responsible for wild bird decline, bee decline, British plant species decline. Meat, dairy foods and egg production ahs the highest carbon footprint/plant and cereal crops have the lowest.
Seasonality	You may find that if you work with a producers that farms locally you can buy their fresh ingredients that are in season—so for example Asparagus may be in season in April and you can serve your menu around asparagus as your chosen veg of the day. Brussel sprouts are always ready to eat in December—this is why we have them with our Xmas lunch. Apples are ready in September and strawberries in June (UK)—if we buy Spanish strawberries in January they lack flavour, colour, juiciness and the food miles have increased.
Food Provenance and sustainability. The UK labelling system means that with food provenance the label must state where an animal was born, reared, slaughtered and in some cases how long it was matured for. Pigs/pork especially as the welfare system needs a lot of improvement in EU countries—pigs are kept in small pens and are unable to move around.	Food provenance refers to the point of 'origin'—where it is grown or reared. Often we go to buy some strawberries in November without giving any thought to where they have come from and how much it has cost for us to have them—in other words UK cannot grow strawberries 'out of season' so we import them. This is very expensive and damaging to our environment. Its about 'food miles' and our 'carbon footprint'. If we only buy our strawberries in June in the UK local to us the only fuel we have used is our own car or even walk to the farm. Sustainability; this refers to the impact of producing and consuming food on the worlds economy. Sustainable food should be produced, processed, bought, sold and eaten with consideration to being able to replacing it. Fishing quota—how much fish you are allowed to 'land' is told to you by the EU. If you catch too much, you must put it back in the sea, even if its dead! Lobsters MUST be a certain size before they are allowed to be caught. Greenpeace—international organisation of activists who look after animal welfare, the planet, are concerned with extinction of wildlife.

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.

Learning outcome A: Demonstrate professional and commercial skills for the music industry

Reflective Practice

What is it?

Reflective Practice is a fancy way of saying that you regularly think about how your practice sessions have gone, what you have learnt and how you could make them better. You should apply this idea to performances as well. Research has shown that it is an extremely powerful way of quickly improving your abilities.

How to do it?

The next time you finish rehearsing or performing, take a few minutes to reflect on what you learned in your practice session or performance and what you might do differently next time to make things even better. This is especially powerful if you write your thoughts down.

Learning outcome A: Demonstrate professional and commercial skills for the music industry

Planning Skills

Developing a Vision

You need to have a clear idea of what your finished **product** should look and sound like and how it fits the **theme** given to you.
If you do not spend time in this stage, you won't know what you're aiming at – you'll be like a blindfolded archer.

Types of plan

You should develop three different types of plan. Firstly, you'll need a **long-term plan** which outlines your ultimate goal and the basic steps you need to take. For example:

1) *Research theme*
2) *Decide on the vision*
3) *Rehearse*
4) *Deliver music product*

Mid-term plans break these big steps down into greater detail. They might tell you what you're going to do in a given month. For instance:

Plan for June:
Week 1: Learn first song
Week 2: Learn second song
Week 3: Work on stage presence
Week 4: Video rehearsals to assess stage presence and musical performance

Short-term plans will give you the most detail and most likely will tell you what you're doing each day. For example:

Mon: Warmup for 10 mins
Spend 15 minutes singing the song using the lyrics.
Spend 15 minutes practicing without the lyrics
Write lyrics out at the end and check against lyrics from the internet

Learning outcome B: Apply development processes for music skills and techniques

Professional Skills
To accurately understand your strengths and weaknesses you should regularly assess your skills.

To do this you can take a skills audit where you rank your ability in a variety of skills related to your role as a Performer, Producer or DJ

These are example of skills audits...

DJ Skills Audit

Rate yourself from 1 –5 in the following skills. 1 is the lowest and 5 is the highest.

stage presence	
Beats per minute	
pitch control,	
phrasing	
spin backs	
button stopping	
crossfading	
cutting	
drop-ins	
musical interaction	
Rhythm and timing	

Music Performance Techniques		1	2	3	4	5
Accuracy of Pitch	Playing the correct notes.					
Rhythm	Using and creating rhythms.					
Timing	Staying in time with people.					
Technical Exercises	Using scales, arpeggios or chords.					
Expression and Dynamics	Playing in a way that expresses emotion.					
Phrasing	Playing your part without putting spaces in the wrong place.					
Range	Being able to use a large range of notes with your voice or on an instrument.					
Sight reading/singing	Quickly reading notes and chords from music and playing them.					
Improvisation	Making up ideas on the spot.					
Breath Control	Taking breaths in the right places and keeping your voice					

Music Producer Skills Audit	
I can edit sounds using the software	
I can load in loops and samples	
I can create complex drum patterns	
I can play basic major and minor chords	

Rehearsal Techniques - Smart Targets

Every rehearsal should have a target to be achieved at the end. However, some people will specify a goal such as "*Make the song better".* This is not effective as it doesn't specify what needs to happen to make it better nor how you're going to achieve that. The most effective targets are SMART targets.

Rehearsal Techniques

Warmups

A sports person wouldn't dream of going into a hard training session without warming up first. They would run the risk of serious injury or poor performance. Our hands and voices also need to warming up before they'll perform at their best.

Examples of warmup include:

- Playing/Singing through a familiar and easy piece.
- Running through some easy scales or chords
- Stretches or Massage for hands, arms, legs and jaw

Technical Exercises

These are (usually) short musical exercises designed to improve a specific element of your playing or singing. However, they are too challenging to be a warmup.

They help develop abilities such as speed, dexterity, tone, pitch, articulation and vibrato.

There are many technical exercise available on the web for all instruments, but you should select exercises which will address your specific weaknesses.

¿Llevas una vida sana? *(Do you lead a healthy lifestyle?)*

1

OPINION VERB	VERB	CONNECTIVE	VERB	QUANTIFIER	NOUN	CONNECTIVE	FREQUENCY
Pienso que *[I think that]* **Supongo que** *[I suppose that]* **Diría que** *[I would say that]* **Desde mi punto de vista** *[From my point of view]*	**soy sano/a** *[I'm healthy]* **llevo una vida sana** *[I'm healthy]* **no soy sano/a** *[I'm not healthy]* **no llevo una vida sana** *[I'm healthy]*	**porque** *[because]*	**como** *[I eat]* **bebo** *[I drink]* **evito tomar** *[I avoid having]* **fumo** *[I smoke]*	**mucho/a(s)** *[lots of]* **poco/a(s)** *[little/not much]* **demasiado/a(s)** *[too much]*	**agua** *[water]* **ensalada** *[salad]* **carne** *[meat]* **comida basura** *[junk food]* **café** *[coffee]* **pescado** *[fish]* **azúcar** *[sugar]* **manzanas** *[apples]* **bebidas azucaradas** *[sugary drinks]* **verduras** *[vegetables]* **patatas fritas** *[chips]* **caramelos** *[sweets]* **huevos** *[eggs]* **plátanos** *[bananas]* **refrescos** *[fizzy drinks]* **cigarillos** *[cigarettes]*	**y también** *[and also]* **además** *[furthermore]* **sin embargo** *[however]* **no obstante** *[nevertheless]* **desafortunada-mente** *(unfortunately)*	**a veces** *(sometimes)* **de vez en cuando** *(from time to time)* **de higo a brevas** *(once in a blue moon)* **casi nunca** *(hardly ever)* **siempre** *(always)*

¿Qué hay que hacer para llevar una vida saludable? *(What do you have to do to lead a healthy lifestyle?)*

INIFINITIVE PHRASE	ADVICE	INIFINITIVE PHRASE	CONN'VE	ADVICE	INIFINITIVE PHRASE	VERB	NOUN
Para ser saludable *(In order to be healthy)*	**es obligatorio** *(it is compulsory)*	**comer frutas y verduras,** (to) eat fruit and vegetables		**es necesario (no)** *[it is (not) necessary]*	**dormir al menos ocho horas:** *(to) sleep at least eight hours*		**ser sobrepeso** *(being overweight)*
Para llevar una vida sana *(In order to lead a healthy lifestyle)*	**es necesario** *(it is necessary)*	**tener una dieta equilibrada** (to) have a balanced diet	**aunque también** *(although also)*	**es recomendable (no)** *[it is (not) recommended]*	**estar a dieta:** *(to) be on a diet*	**podría causar** *(it could cause)*	**la obesidad** *(obesity)*
Para relajarse *(In order to relax)*	**es aconsejable** *(it is advisable)*	**beber mucha agua,** (to) drink lots of water	**pero también** *(but also)*	**(no) se debe** *[you must (not)]*	**fumar o tomar drogas:** *(to) smoke or take drugs*		**una enfermedad grave** *(a serious illness)*
Para evitar el estrés *(In order to avoid stress)*	**hay que** *(you have to)*	**tomar el aire libre,** (to) get fresh air		**(no) se debería** *[you should (not)]*	**mantenerse en forma:** *(to) keep fit*	**podría llevarse a** *(it could lead to)*	**un ataque cardíaco** *(a heart attack)*
Para mejorar la salud *(In order to improve your health)*	**se puede** *(you can)*	**evitar la comida basura,** (to) avoid junk food			**abusar de las bebidas azúcaradas:** *(to) drink too many sugary drinks*		**tobaquismo** *(smoking addiction)*
	se debe *(you must)*	**hacer ejercicio,** (to) do exercise			**consumir alcohol:** *(to) consume alcohol*		
	se debería *(you should)*	**correr,** (to) run					

¿Qué haces para ayudar a otros? *(What do you do to help others?)*
¿Te gustaría hacer trabajo voluntario? *(Would you like to do volunteering work in the future?)*

3

INIFINITIVE PHRASE	VERB	NOUN	CONN'VE	OPINION VERB	REASON
Para ayudar a personas *[To help people]*	**dono dinero a** *[I donate money to]* **doy comida a** *[I give food to]* **recaudo fondos para** *[I fundraise for]* **trabajo con** *[I work with]*	**los necesitados** *[the needy]* **los pobres** *[the poor]* **los sin techo** *[the homeless]* **las organizaciones benéficas** *[charity]* **al banco de alimentos** *[to the food bank]*	**porque** *(because)* **dado que** *(given that)* **ya que** *(since)*	**opino que** *(I think that)* **creo que** *(I believe that)* **pienso que** *(I think that)*	**es importante contribuir.** *(it's important to contribute)* **hay que ser simpático/a.** *(you have to be kind)* **no deberíamos ser egoístas.** *(we shouldn't be selfish)* **todos merecen una oportunidad.** *(everyone deserves a chance)*

VERB	INIFINITIVE PHRASE	NOUN	VERB	INFINITIVE PHRASE
Quisiera *(I would like)* **Me encantaría** *(I would love)*	**trabajar como voluntario para** *(to work as volunter for)* **ayudar a** *(to help)* **apoyar** *(to support)* **apadrinar a** *(to sponsor)*	**la residencia para mayores** *(the care home)* **el comedor social** *(the soup kitchen)* **el banco de alimentos** *(the food bank)* **la tienda benéfica** *(the charity shop)* **un niño** *(a child)*	**quiero** *(I want)* **espero** *(I hope)*	**aprender cosas nuevas.** *(to learn new things.)* **conocer gente nueva.** *(to meet new people.)* **hacer una difrencia.** *(to make a difference.)* **recaudar dinero para los necesitados.** *(to raise money for the needy.)* **ayudar a los sin techo.** *(help the homeless.)*

¿Qué haces para proteger el medio ambiente? *(What do you do to protect the environment?)*

OPINION VERB	NOUN	INFINITIVE PHRASE	VERB
Me enfada *[(it) angers me]*	**el cambio climático** *[climate change]*	**Para reducir malgastos** *[to reduce waste]*	**me pongo un jersey en vez de poner la calefacción.** *[I put on a jumper instead of the heating.]*
Me hace triste *[(it) makes me sad]*	**la basura** *[litter]*	**Para evitar daño** *[to avoid harm]*	**desenchufo los aparatos eléctricos.** *[I unplug appliances.]*
Me importa *[(it) is important to me]*	**el medio ambiente** *[the environment]*	**Para proteger el medio ambiente** *[to protect the environment*	**apago la luz.** *[I turn off the light.]*
Me interesa *[(it) interests me]*	**la naturaleza** *[nature]*	**Para proteger el planeta** *[to protect the planet]*	**me ducho en vez de bañarme.** *[I have a shower instead of a bath].*
Me preocupa *[(it) worries me]*	**la falta de agua** *[the lack of water]*	**Para ahorrar energía** *[to save energy]*	**cierro el grifo.** *[I turn off the tap].*
Me fastidia/molesta *[(it) annoys me]*	**el malgasto de energía** *[the waste of energy]*	**Para ahorrar agua** *[to save water]*	**evito el uso de combustibles fósiles.** *[I avoid using fossil fuels]*
	el desperdicio de recursos *[the waste of resources]*		**evito el uso de bolsas plásticas.** *[I avoid using plastic bags]*
			uso el transporte público. *[I use public transport.]*
			voy al colegio a pie. *[I go to school on foot.]*
			reciclo latas. *[I recycle cans.]*
			reciclo papel. *[I recycle paper]*
			reciclo vidrio. *[I recycle glass.]*
			separo la basura. *[I separate rubbish]*
			no tiro a basura. *[I don't litter]*

¿Cuáles son los problemas globales más graves hoy en día? *(What are the most serious global issues today?)*

5

OPINION VERB	NOUN	ADVICE	SUBJUNCTIVE VERB
Me preocupa(n) *(I am worried about)*	**el cambio climático** *(climate change)* **el paro/desempleo** *(unemployment)* **el hambre** *(hunger)* **la pobreza** *(poverty)* **la deforestación** *(deforestation)* **la drogadicción** *(drug addiction)* **la salud/la obesidad** *(health/obesity)* **la crisis económica** *(the economic crisis)* **los problemas medioambientales** *(environmental problems)* **los sin hogar/techo** *(the homeless)* **los animales en peligro de extinción** *(animals in danger of extinction)*	**es necesario que** *(it's necessary that)* **es imprescindible que** *(it's essential that)*	**cuidemos el planeta** *(we look after the planet)* **compremos/usemos productos verdes** *(we buy/use green products)* **hagamos proyectos de conservación** *(we do conservation projects)* **apoyemos campañas solidarias** *(we support charitable campaigns)* **creemos oportunidades de trabajo** *(we create job opportunities)* **ahorremos agua/energía** *(we save water/energy)* **construyamos más casas** *(we build more houses)* **cambiemos la ley** *(we change the law)* **consumamos menos ...** *(we consume less…)* **plantemos más árboles** *(we plant more trees)*

PHYSICAL EDUCATION - A HEALTHY BALANCED DIET

A balanced diet – eating the right foods in the correct proportions. Taking in the right amount of calories for the expenditure of energy.

In order to perform well in sport, an athlete needs to have a healthy balanced diet.

1 

2 

3 

There are 7 components of a balanced diet, these are:

1• **Carbohydrates** – Main energy source. i.e. pasta & potatoes
2• **Fats** – Secondary energy source & provides insulation. i.e. butter
3• **Proteins** – Help growth and repair of muscles. i.e. eggs, white meat & fish
4• **Minerals** – Maintains a healthy bodily functioning. i.e. iron and calcium
5• **Vitamins** - Maintains a healthy immune system. i.e. vitamin C/D
6• **Fibre** – Aids digestion of food in the gut. *i.e. cereals & nuts*
7• **Water** – Maintains hydration of an athlete.

4 

5. 

6. 

7. 

Hydration and physical activity

Water is necessary for:
•Transportation of nutrients
•Removes waste products through urine
•Regulates body temperature

A lack of water can cause **dehydration**. Symptoms are tiredness, lack of concentration and headaches.

After the event - An athlete will continue to drink fluids to replace the water and carbohydrate levels that are depleted.

In order to have a healthy balanced diet, you should eat a variety of different food groups.
The **eatwell plate** shows you the approximate portions.

PHYSICAL EDUCATION - THE COMPONENTS OF FITNESS

Fitness can be broken down into different parts, these can be called the Components of Fitness.

Components of Fitness	Definition	How does it link to Sport?	How can I test the components of fitness?
Agility	The ability to change the position of the body quickly and control the movement.	Football - A footballer will need to dribble with speed, control and will need to change direction in order to beat the defenders.	Illinois Agility Test
Balance	The ability to maintain the body's center of mass above the base of support.	Athletics - A sprinter holds a perfectly still sprint start position and is ready to go into action as soon as the gun sounds.	Standing Stork Balance Test.
Coordination	The ability to use two or more body parts together.	Table Tennis - A player will need good hand-eye coordination in order to successfully hit the ball over the net.	Tennis Ball Wall Toss.
Flexibility	The range of motion (ROM) at a joint.	Gymnastics - A gymnast will need to show great flexibility when performing the splits.	Sit and Reach Test.
Muscular Endurance	The ability to use voluntary muscles repeatedly without tiring.	Netball - A netball player will need to repeatedly use their muscles when performing skills such as: passing, shooting and marking in a competitive game.	Sit Up Test. Press Up Test.
Muscular Strength	The amount of force a muscle can exert against a resistance.	Rugby - A rugby player will need to exert a large amount of force when making a tackle in Rugby.	Wall Sit.
Power	The ability to perform strength performances quickly.	Athletics - A javelin thrower applies great force to the spear while moving their arm rapidly forward.	Broad Jump. Sargent Jump.
Reaction Time	The time taken to respond to a stimulus.	Running - Track events start with a pistol fire; therefore all runners must react quickly to give them an advantage to race.	Ruler Drop.
Speed	The ability to put body parts into motion quickly.	Basketball - A basketball player will need to sprint down the court in order to get away from a defender/ opponent.	30M Sprint.








Plympton Academy
Inspiring Success

REVISE@PA

FLASH CARDS

USE

Memorising key words/facts/short pieces of information.

WHAT ARE THEY?

A set of cards with a question/ key word on one side and an answer/ definition on the other. You learn as you make the cards and then have an excellent tool to test yourself over and over until you know the answers.

HOW DO I USE THEM?

MAKING THE CARDS:

1. Buy or make some cards (A6 size) - Not paper.
2. Write the topic/subject in the corner of the card.
3. Write a key word/ question on the same side of the card.
4. On the other side of the card write the answer (if you have written a question) or definition/ explanation (if it is a key word).
5. Make a set of cards - You can use different colour cards for different topics or for easier and harder questions.

USING THE CARDS:

1. Read through cards (both sides) one at a time.
2. Test yourself- go through the cards one at a time. If you have asked a question, try to answer it out loud or in your mind; if you have written a key word try to recall as much information as you can.
3. After each card, turn it over and look at the answer/definition. If you are happy with the way you have answered it put it on the RIGHT pile. If you got the information wrong or your answer was incomplete , put it on the WRONG pile.
4. When you have gone through all the cards, repeat the process with the WRONG pile. Keep repeating until you have no cards in the WRONG pile.
5. You can also use your cards to test your friends.

Put your cards in a safe place - You can come back to them in future.

PLYMPTON ACADEMY

TERM FIVE & SIX

HANDBOOK

YEAR 10